



# Automation and Control Essentials Catalog 2025

Everything you need for your control panels

[www.se.com](http://www.se.com)

Life Is On

**Schneider**  
Electric



A photograph of an industrial robotic arm, specifically a Schunk model, in a factory environment. The arm is yellow and is positioned over a work area. In the background, there are various industrial components, including a control panel with a small screen and buttons. The scene is lit with bright, cool-toned lights.

# The Essentials for your control panels

You will find all the essentials you need for high-quality control panels in this catalog. Choose the right products to set up your equipment with ease, complete your work faster, and give your business a boost.



# 2025 product highlights







Get all the products  
you need from a distributor  
close to you



# General contents

|    |                                                                                            |    |
|----|--------------------------------------------------------------------------------------------|----|
| 01 | Harmony pushbuttons, switches,<br>and pilot lights.....                                    | 4  |
| 02 | Harmony Signaling devices.....                                                             | 18 |
| 03 | Harmony Human Machine Interfaces<br>(HMI) - Basic panels.....                              | 24 |
| 04 | TeSys motor management, distribution system<br>protection, power metering and control..... | 28 |
| 05 | Altivar soft starters and Altivar variable<br>speed drives.....                            | 42 |
| 06 | Harmony interface, measurement and<br>control relays.....                                  | 48 |
| 07 | Modicon PLC, power supply and transformer,<br>Uninterruptible Power Supply .....           | 56 |
| 08 | Harmony safety modules and<br>Modicon safety controllers.....                              | 60 |
| 09 | Universal enclosures.....                                                                  | 66 |





# 01. Harmony pushbuttons, switches, and pilot lights



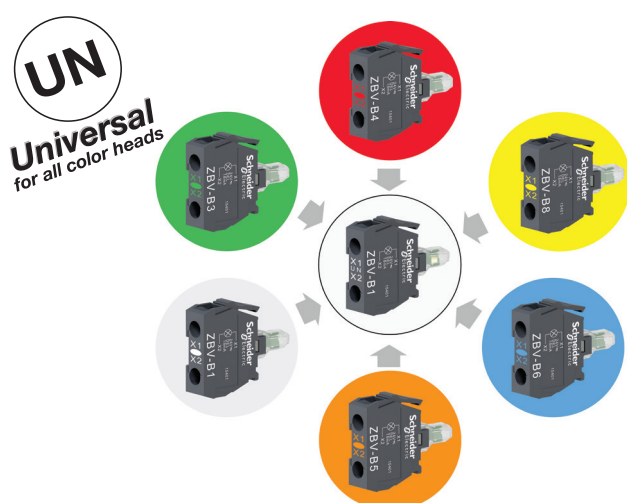
## Universal LED block for all illuminated version

Harmony streamline the structure of pilot lights and actuators using LED by moving from 6 colored LEDs to a universal source of luminosity.

A unique technology that leads to the best lighting solution.

- Divide by 6 the stocked part numbers (for a given wiring and voltage solution)
- Astonishing intensity and contrast with enhanced color purity
- Reduce conception and installation time
- Simplified maintenance
- Avoid errors on pairing between heads and light blocks. Nomenclatures are simplified

The universal light blocks are now identifiable in the catalog with the below logo as well as physically on the product with the two letters "UN".



### Features

#### Harmony XB4/XB5 Illuminated functions

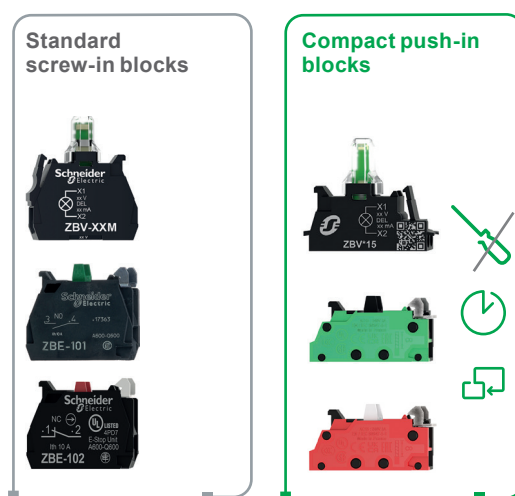


## Compact Push In contact and LED blocks

Harmony is the first one on the market proposing compacity and stackable features together with Push-in technology which is fully compatible with our Harmony XB4/XB5 units.

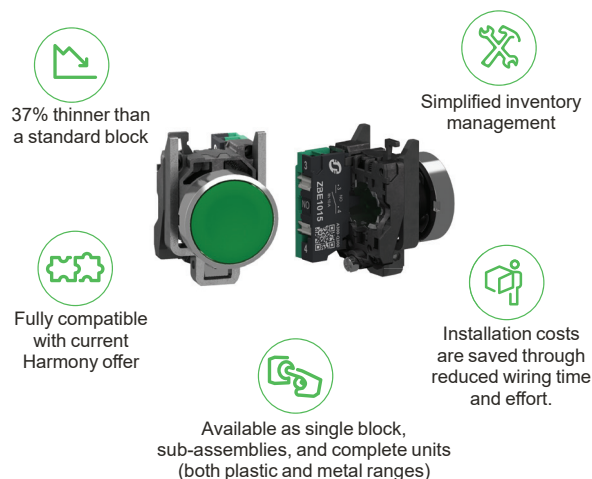
Innovative products for benefits never seen before

- Save installation cost by saving wiring time
- No more tools required when inserting cables
- Save maintenance cost avoiding periodic re- tightening campaign
- Improve aesthetic with slim panels thanks to compacity.
- Extend application scope with more possible configurations.
- No compromise on the level of performance and robustness



### Features

#### Harmony XB4/XB5 Compact Push-in blocks



Available as single block, sub-assemblies, and complete units (both plastic and metal ranges)



# Harmony XB4 metal pushbuttons



## 1 Pushbuttons with flush push, unmarked

|                                                       |                                                                                         |                                                                                         |                                                                                         |                                                                                       |                                                                                          |                                                                                          |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Color                                                 |  White |  Black |  Green |  Red |  Yellow |  Blue |
| Contact                                               | NO                                                                                      |                                                                                         |                                                                                         | NC                                                                                    | NO                                                                                       |                                                                                          |
| Connection                                            | Screw clamp terminals                                                                   |                                                                                         |                                                                                         |                                                                                       |                                                                                          |                                                                                          |
| Complete product                                      | XB4BA11                                                                                 | XB4BA21                                                                                 | XB4BA31                                                                                 | XB4BA42                                                                               | XB4BA51                                                                                  | XB4BA61                                                                                  |
| Head                                                  | ZB4BA1                                                                                  | ZB4BA2                                                                                  | ZB4BA3                                                                                  | ZB4BA4                                                                                | ZB4BA5                                                                                   | ZB4BA6                                                                                   |
| Complete flush mounting head in 30.5 mm diameter hole | XB4FA11                                                                                 | XB4FA21                                                                                 | XB4FA31                                                                                 | XB4FA42                                                                               | –                                                                                        | XB4FA61                                                                                  |
| Flush mounting head in 30.5 mm diameter hole          | ZB4FA1                                                                                  | ZB4FA2                                                                                  | ZB4FA3                                                                                  | ZB4FA4                                                                                | ZB4FA5                                                                                   | ZB4FA6                                                                                   |
| Body                                                  | ZB4BZ101                                                                                |                                                                                         |                                                                                         | ZB4BZ102                                                                              | ZB4BZ101                                                                                 |                                                                                          |

## 2 Booted pushbuttons with flush push, unmarked

|                  |          |         |         |          |          |         |
|------------------|----------|---------|---------|----------|----------|---------|
| Complete product | –        | XB4BP21 | XB4BP31 | XB4BP42  | XB4BP51  | XB4BP61 |
| Head             | ZB4BP1   | ZB4BP2  | ZB4BP3  | ZB4BP4   | ZB4BP5   | ZB4BP6  |
| Body             | ZB4BZ101 |         |         | ZB4BZ102 | ZB4BZ101 |         |

## 3 Pushbuttons with flush push, marked

|                                                       |                       |           |             |               |                 |                |
|-------------------------------------------------------|-----------------------|-----------|-------------|---------------|-----------------|----------------|
| Color                                                 | White                 | Black     | Green       | Red           | Green           | Red            |
| Marking                                               | ↑                     | ↓         | "I" (white) | "O" (white)   | "START" (white) | "STOP" (white) |
| Contact                                               | NO                    |           |             | NO + NC       | NO              | NO + NC        |
| Connection                                            | Screw clamp terminals |           |             |               |                 |                |
| Complete product                                      | XB4BA3341             | XB4BA3351 | XB4BA3311   | –             | –               | –              |
| Head                                                  | ZB4BA334              | ZB4BA335  | ZB4BA331    | ZB4BL432 (1)  | ZB4BA333        | ZB4BL434       |
| Complete flush mounting head in 30.5 mm diameter hole | XB4FA3341             | XB4FA3351 | XB4FA3311   | XB4FL4325 (1) | –               | –              |
| Flush mounting head in 30.5 mm diameter hole          | ZB4FA334              | ZB4FA335  | ZB4FA331    | ZB4FL432 (1)  | ZB4FA333        | ZB4FL434       |
| Body                                                  | ZB4BZ101              |           |             | ZB4BZ105      | ZB4BZ101        | ZB4BZ105       |



## 4 Ø 40 trigger action Emergency stop mushroom head pushbuttons

|                  |                       |                                 |                      |                         |                     |
|------------------|-----------------------|---------------------------------|----------------------|-------------------------|---------------------|
| Color            | Red                   |                                 |                      |                         |                     |
| Contact          | NO + NC Push-pull     | 1 NC monitoring Turn to release | 2 NC Turn to release | NO + NC Turn to release | NO + NC Key release |
| Connection       | Screw clamp terminals |                                 |                      |                         |                     |
| Complete product | XB4BT845              | XB4BS8446                       | XB4BS8444            | XB4BS8445               | XB4BS9445           |
| Head             | ZB4BT84               | ZB4BS844                        |                      | ZB4BS944                |                     |
| Body             | ZB4BZ105              | ZBE302 + ZB4BZ009               | ZB4BZ104             | ZB4BZ105                |                     |

## 5 Ø 40 mushroom head pushbutton, spring return

|                  |                       |        |        |        |
|------------------|-----------------------|--------|--------|--------|
| Color            | Black                 | Green  | Blue   | Yellow |
| Contact          | NO Push-pull          |        |        |        |
| Connection       | Screw clamp terminals |        |        |        |
| Complete product | XB4BC21               | –      | –      | –      |
| Head             | ZB4BC2                | ZB4BC3 | ZB4BC6 | ZB4BC5 |
| Body             | ZB4BZ101              |        |        |        |

## 6 Illuminated ring for Emergency stop (2)

| Color of the illuminated ring          |                      |  White /  Red |  Red |                |                |
|----------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------|----------------|
| Power supply                           |                      | 24 VAC/VDC                                                                                                                                                                          |                                                                                         | 110... 120 VAC | 230... 240 VAC |
| Complete product for standard mounting | Unmarked             | ZBY9W3B140                                                                                                                                                                          | ZBY9W2B140                                                                              | ZBY9W2G140     | ZBY9W2M140     |
|                                        | EMERGENCY STOP       | ZBY9W3B330                                                                                                                                                                          | ZBY9W2B330                                                                              | ZBY9W2G330     | ZBY9W2M330     |
|                                        | ARRET D'URGENCE      | ZBY9W3B130                                                                                                                                                                          | ZBY9W2B130                                                                              | ZBY9W2G130     | ZBY9W2M130     |
|                                        | PARADA DE EMERGENCIA | ZBY9W3B430                                                                                                                                                                          | ZBY9W2B430                                                                              | ZBY9W2G430     | ZBY9W2M430     |
|                                        | NOT-HALT             | ZBY9W3B230                                                                                                                                                                          | ZBY9W2B230                                                                              | ZBY9W2G230     | ZBY9W2M230     |

(1) With projecting push.

(2) For compliance with standard EN/ISO 13850, paragraph 4.4.6, the Emergency stop function logo Ⓢ has been added.



# Harmony XB4 metal pushbuttons



| 1 Pilot lights with universal LED  |               |                       |         |         |         |         |           |
|---------------------------------------------------------------------------------------------------------------------|---------------|-----------------------|---------|---------|---------|---------|-----------|
| Color                                                                                                               |               | White                 | Green   | Red     | Orange  | Blue    | Yellow    |
| Connection                                                                                                          |               | Screw clamp terminals |         |         |         |         |           |
| Complete product                                                                                                    | 24 VAC/VDC    | XB4BVB1               | XB4BVB3 | XB4BVB4 | XB4BVB5 | XB4BVB6 | ZBVB1 (1) |
|                                                                                                                     | 110...120 VAC | XB4BVG1               | XB4BVG3 | XB4BVG4 | XB4BVG5 | XB4BVG6 | ZBVG1 (1) |
|                                                                                                                     | 230...240 VAC | XB4BVM1               | XB4BVM3 | XB4BVM4 | XB4BVM5 | XB4BVM6 | ZBVM1 (1) |
| Complete flush mounting head in 30.5 mm diameter hole                                                               | 24 VAC/VDC    | XB4FVB1               | XB4FVB3 | XB4FVB4 | –       | XB4FVB6 | ZBVB1 (2) |
|                                                                                                                     | 110...120 VAC | XB4FVG1               | XB4FVG3 | XB4FVG4 | XB4FVG5 | XB4FVG6 | ZBVG1 (2) |
|                                                                                                                     | 230...240 VAC | XB4FVM1               | XB4FVM3 | XB4FVM4 | XB4FVM5 | XB4FVM6 | ZBVM1 (2) |

| 2 Illuminated pushbuttons with flush push and universal LED  |               |                       |           |           |           |           |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------|-----------|-----------|-----------|-----------|-----------|
| Color                                                                                                                                         |               | White                 | Green     | Red       | Orange    | Blue      | Yellow    |
| Contact                                                                                                                                       |               | NO + NC               |           |           |           |           |           |
| Connection                                                                                                                                    |               | Screw clamp terminals |           |           |           |           |           |
| Complete product                                                                                                                              | 24 VAC/VDC    | XB4BW31B5             | XB4BW33B5 | XB4BW34B5 | XB4BW35B5 | XB4BW36B5 | ZBVB1 (3) |
|                                                                                                                                               | 110...120 VAC | XB4BW31G5             | XB4BW33G5 | XB4BW34G5 | XB4BW35G5 | XB4BW36G5 | ZBVG1 (3) |
|                                                                                                                                               | 230...240 VAC | XB4BW31M5             | XB4BW33M5 | XB4BW34M5 | XB4BW35M5 | XB4BW36M5 | ZBVM1 (3) |
| Complete flush mounting head in 30.5 mm diameter hole                                                                                         | 24 VAC/VDC    | XB4FW31B5             | XB4FW33B5 | XB4FW34B5 | –         | XB4FW36B5 | ZBVB1 (4) |
|                                                                                                                                               | 110...120 VAC | XB4FW31G5             | XB4FW33G5 | XB4FW34G5 | XB4FW35G5 | XB4FW36G5 | ZBVG1 (4) |
|                                                                                                                                               | 230...240 VAC | XB4FW31M5             | XB4FW33M5 | XB4FW34M5 | XB4FW35M5 | XB4FW36M5 | ZBVM1 (4) |



| 3 Selector switches and key switches                  |                      |                                                                                       |                                                                                       |                                                                                       |                                                                                         |                                                                                         |
|-------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Positions (number and type)                           |                      | 2  | 2  | 2  | 3  | 3  |
|                                                       |                      | Stay put                                                                              | Spring return                                                                         | Stay put                                                                              | Stay put                                                                                | Spring return                                                                           |
| Contact                                               |                      | NO                                                                                    |                                                                                       | NO + NC                                                                               | 2 NO                                                                                    |                                                                                         |
| Connection                                            |                      | Screw clamp terminals                                                                 |                                                                                       |                                                                                       |                                                                                         |                                                                                         |
| Complete product                                      | Black handle         | XB4BD21                                                                               | XB4BD41                                                                               | XB4BD25                                                                               | XB4BD33                                                                                 | XB4BD53                                                                                 |
|                                                       | Long black handle    | XB4BJ21                                                                               | –                                                                                     | –                                                                                     | XB4BJ33                                                                                 | XB4BJ53                                                                                 |
|                                                       | Key switch (No. 455) | XB4BG21                                                                               | XB4BG61                                                                               | –                                                                                     | XB4BG33                                                                                 | –                                                                                       |
| Complete flush mounting head in 30.5 mm diameter hole | Black                | XB4FD21                                                                               | XB4FD41                                                                               | XB4FD25                                                                               | XB4FD33                                                                                 | XB4FD53                                                                                 |
|                                                       | Long black handle    | XB4FJ21                                                                               | –                                                                                     | –                                                                                     | XB4FJ33                                                                                 | XB4FJ53                                                                                 |
|                                                       | Key switch (No. 455) | XB4FG21                                                                               | XB4FG61                                                                               | –                                                                                     | XB4FG33                                                                                 | –                                                                                       |

| 4 Illuminated selector switches with universal LED  and colored handle |               |                                                                                           |                                                                                         |                                                                                            |                                                                                             |                                                                                           |                                                                                              |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--|
| Stay put positions                                                                                                                                        |               | 2      |                                                                                         |                                                                                            | 3      |                                                                                           |                                                                                              |  |
| Color                                                                                                                                                     |               |  Green |  Red |  Orange |  Green |  Red |  Orange |  |
| Contact                                                                                                                                                   |               | NO + NC                                                                                   |                                                                                         |                                                                                            |                                                                                             |                                                                                           |                                                                                              |  |
| Connection                                                                                                                                                |               | Screw clamp terminals                                                                     |                                                                                         |                                                                                            |                                                                                             |                                                                                           |                                                                                              |  |
| Complete product                                                                                                                                          | 24 VAC/VDC    | XB4BK123B5                                                                                | XB4BK124B5                                                                              | XB4BK125B5                                                                                 | XB4BK133B5                                                                                  | XB4BK134B5                                                                                | XB4BK135B5                                                                                   |  |
|                                                                                                                                                           | 110...120 VAC | XB4BK123G5                                                                                | XB4BK124G5                                                                              | XB4BK125G5                                                                                 | XB4BK133G5                                                                                  | –                                                                                         | –                                                                                            |  |
|                                                                                                                                                           | 230...240 VAC | XB4BK123M5                                                                                | XB4BK124M5                                                                              | XB4BK125M5                                                                                 | XB4BK133M5                                                                                  | XB4BK134M5                                                                                | XB4BK135M5                                                                                   |  |
| Complete flush mounting head in 30.5 mm diameter hole                                                                                                     | 24 VAC/VDC    | XB4FK123B5                                                                                | XB4FK124B5                                                                              | XB4FK125B5                                                                                 | XB4FK133B5                                                                                  | XB4FK134B5                                                                                | XB4FK135B5                                                                                   |  |
|                                                                                                                                                           | 110...120 VAC | XB4FK123G5                                                                                | XB4FK124G5                                                                              | XB4FK125G5                                                                                 | XB4FK133G5                                                                                  | XB4FK134G5                                                                                | XB4FK135G5                                                                                   |  |
|                                                                                                                                                           | 230...240 VAC | XB4FK123M5                                                                                | XB4FK124M5                                                                              | XB4FK125M5                                                                                 | XB4FK133M5                                                                                  | XB4FK134M5                                                                                | XB4FK135M5                                                                                   |  |

|                  |                                       |           |                               |             |                                       |
|------------------|---------------------------------------|-----------|-------------------------------|-------------|---------------------------------------|
| 5                | Double- and triple-headed pushbuttons |           |                               |             |                                       |
| Type             | 1 flush and<br>1 projecting           | 2 flush   | 1 flush and<br>1 projecting   | 2 flush     | 2 flush<br>+ 1 red central projecting |
| Contact          | NO + NC                               |           | NO + NC with 24 V pilot light |             | 2 NO + NC                             |
| Connection       | Screw clamp terminals                 |           |                               |             |                                       |
| Complete product | XB4BL73415                            | –         | XB4BW73731B5                  | –           | XB4BA731327                           |
| Head             | ZB4BL7341                             | ZB4BA7121 | ZB4BW7L3741                   | ZB4BW7A1721 | –                                     |
| Body             | ZB4BZ105                              |           | ZB4BZ105 + ZBVB1              |             | ZB4BZ103 + ZBE102                     |

- (1) To get a complete pilot light, this body must be combined with a ZB4BZ009 socket and a ZB4BV083 head (to be ordered separately).  
 (2) To get a complete pilot light, this body must be combined with ZB4BZ009 socket and ZB4FV083 head (to be ordered separately).  
 (3) To get a complete illuminated pushbutton, this body must be combined with a ZB4BZ009 socket and a ZB4BW383 head (to be ordered separately).  
 (4) To get a complete pilot light, this body must be combined with ZB4BZ009 socket and ZB4FW383 head (to be ordered separately).



# Harmony XB5 plastic pushbuttons



## 1 Pushbuttons with flush push, unmarked

|                                                       |                                                                                         |                                                                                         |                                                                                         |                                                                                       |                                                                                          |                                                                                        |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Color                                                 |  White |  Black |  Green |  Red |  Yellow |  Blue |
| Contact                                               | NO                                                                                      |                                                                                         |                                                                                         | NC                                                                                    | NO                                                                                       |                                                                                        |
| Connection                                            | Screw clamp terminals                                                                   |                                                                                         |                                                                                         |                                                                                       |                                                                                          |                                                                                        |
| Complete product for standard mounting                | XB5AA11                                                                                 | XB5AA21                                                                                 | XB5AA31                                                                                 | XB5AA42                                                                               | XB5AA51                                                                                  | XB5AA61                                                                                |
| Standard mounting head                                | ZB5AA1                                                                                  | ZB5AA2                                                                                  | ZB5AA3                                                                                  | ZB5AA4                                                                                | ZB5AA5                                                                                   | ZB5AA6                                                                                 |
| Complete flush mounting head in 30.5 mm diameter hole | XB5FA11                                                                                 | XB5FA21                                                                                 | XB5FA31                                                                                 | XB5FA42                                                                               | XB5FA51                                                                                  | XB5FA61                                                                                |
| Flush mounting head in 30.5 mm diameter hole          | ZB5FA1                                                                                  | ZB5FA2                                                                                  | ZB5FA3                                                                                  | ZB5FA4                                                                                | ZB5FA5                                                                                   | ZB5FA6                                                                                 |
| Body                                                  | ZB5AZ101                                                                                |                                                                                         |                                                                                         | ZB5AZ102                                                                              | ZB5AZ101                                                                                 |                                                                                        |

## 2 Booted pushbuttons with flush push, unmarked

|                                        |   |          |         |          |          |         |
|----------------------------------------|---|----------|---------|----------|----------|---------|
| Complete product for standard mounting | – | XB5AP21  | XB5AP31 | XB5AP42  | XB5AP51  | XB5AP61 |
| Standard mounting head                 | – | ZB5AP2   | ZB5AP3  | ZB5AP4   | ZB5AP5   | ZB5AP6  |
| Body                                   | – | ZB5AZ101 |         | ZB5AZ102 | ZB5AZ101 |         |

## 3 Pushbuttons with flush push, marked

|                                                       |                                                                                         |                                                                                         |                                                                                         |                                                                                       |                                                                                          |                                                                                         |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Color                                                 |  White |  Black |  Green |  Red |  Green |  Red |
| Marking                                               |  ↑     |  ↓     | "I" (white)                                                                             | "O" (white)                                                                           | "START" (white)                                                                          | "STOP" (white)                                                                          |
| Contact                                               | NO                                                                                      |                                                                                         |                                                                                         | NC                                                                                    | NO                                                                                       | NC                                                                                      |
| Connection                                            | Screw clamp terminals                                                                   |                                                                                         |                                                                                         |                                                                                       |                                                                                          |                                                                                         |
| Complete product for standard mounting                | XB5AA3341                                                                               | XB5AA3351                                                                               | XB5AA3311                                                                               | –                                                                                     | –                                                                                        | –                                                                                       |
| Standard mounting head                                | ZB5AA334                                                                                | ZB5AA335                                                                                | ZB5AA331                                                                                | ZB5AL432 (1)                                                                          | ZB5AA333                                                                                 | ZB5AL434                                                                                |
| Complete flush mounting head in 30.5 mm diameter hole | XB5FA3341                                                                               | XB5FA3351                                                                               | XB5FA3311                                                                               | XB5FL4322 (1)                                                                         | –                                                                                        | –                                                                                       |
| Flush mounting head in 30.5 mm diameter hole          | ZB5FA334                                                                                | ZB5FA335                                                                                | ZB5FA331                                                                                | ZB5FL432 (1)                                                                          | ZB5FA333                                                                                 | ZB5FL434 (1)                                                                            |
| Body                                                  | ZB5AZ101                                                                                |                                                                                         |                                                                                         | ZB5AZ102                                                                              | ZB5AZ101                                                                                 | ZB5AZ102                                                                                |



## 4 Ø 40 trigger action Emergency stop mushroom head pushbuttons

|                                        |                       |                                    |                         |                            |                        |
|----------------------------------------|-----------------------|------------------------------------|-------------------------|----------------------------|------------------------|
| Color                                  | Red                   |                                    |                         |                            |                        |
| Contact                                | NO + NC<br>Push-pull  | 1 NC monitoring<br>Turn to release | 2 NC<br>Turn to release | NO + NC<br>Turn to release | NO + NC<br>Key release |
| Connection                             | Screw clamp terminals |                                    |                         |                            |                        |
| Complete product for standard mounting | XB5AT845              | XB5AS8446                          | XB5AS8444               | XB5AS8445                  | XB5AS9445              |
| Standard mounting head                 | ZB5AT84               |                                    | ZB5AS844                |                            | ZB5AS944               |
| Body                                   | ZB5AZ105              | ZBE302 +<br>ZB5AZ009               | ZB5AZ104                | ZB5AZ105                   |                        |

## 5 Ø 40 mushroom head pushbuttons, spring return

|                                        |                       |        |        |        |
|----------------------------------------|-----------------------|--------|--------|--------|
| Color                                  | Black                 | Green  | Blue   | Yellow |
| Contact                                | NO Push-pull          |        |        |        |
| Connection                             | Screw clamp terminals |        |        |        |
| Complete product for standard mounting | XB5AC21               | –      | –      | –      |
| Standard mounting head                 | ZB5AC2                | ZB5AC3 | ZB5AC6 | ZB5AC5 |
| Body                                   | ZB5AZ101              |        |        |        |

## 6 Illuminated Emergency stop head

|                                        |                             |                            |                             |                            |
|----------------------------------------|-----------------------------|----------------------------|-----------------------------|----------------------------|
| Color of the illuminated ring          | White / Red                 |                            | Red                         |                            |
| Power supply                           | 24 VAC/VDC                  |                            | 110-120 VAC                 |                            |
| Contact                                | NO + 2NC<br>Turn to release | NO + NC<br>Turn to release | NO + 2NC<br>Turn to release | NO + NC<br>Turn to release |
| Connection                             | Screw clamp terminals       |                            |                             |                            |
| Complete product for standard mounting | XB5AS84W3B41                | XB5AS84W3B5                | –                           | –                          |
| Standard mounting head                 | ZB5AS84W3B                  |                            | ZB5AS84W2B                  | ZB5AS84W2G                 |
| Body                                   | ZB5AZ141                    | ZB5AZ105                   | ZB5AZ141                    | ZB5AZ105                   |

## 7 Illuminated ring for Emergency stop (2)

|                                        |                      |            |             |            |
|----------------------------------------|----------------------|------------|-------------|------------|
| Color of the illuminated ring          | White / Red          |            | Red         |            |
| Power supply                           | 24 VAC/VDC           |            | 110-120 VAC |            |
| Complete product for standard mounting | Unmarked             | ZBY9W3B140 | ZBY9W2B140  | ZBY9W2G140 |
|                                        | EMERGENCY STOP       | ZBY9W3B330 | ZBY9W2B330  | ZBY9W2G330 |
|                                        | ARRET D'URGENCE      | ZBY9W3B130 | ZBY9W2B130  | ZBY9W2G130 |
|                                        | PARADA DE EMERGENCIA | ZBY9W3B430 | ZBY9W2B430  | ZBY9W2G430 |
|                                        | NOT-HALT             | ZBY9W3B230 | ZBY9W2B230  | ZBY9W2G230 |

(1) With projecting push.

(2) For compliance with standard EN/ISO 13850, paragraph 4.4.6, the Emergency stop function logo ® has been added.



# Harmony XB5 plastic pushbuttons



## 1 Pilot lights with universal LED

| Color                                                 |               |  |  |  |  |  |  |
|-------------------------------------------------------|---------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Connection                                            |               | Screw clamp terminals                                                             |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Complete product for standard mounting                | 24 VAC/VDC    | XB5AVB1                                                                           | XB5AVB3                                                                           | XB5AVB4                                                                           | XB5AVB5                                                                             | XB5AVB6                                                                             | ZBVB1 (1)                                                                           |
|                                                       | 110...120 VAC | XB5AVG1                                                                           | XB5AVG3                                                                           | XB5AVG4                                                                           | XB5AVG5                                                                             | XB5AVG6                                                                             | ZBVG1 (1)                                                                           |
|                                                       | 230...240 VAC | XB5AVM1                                                                           | XB5AVM3                                                                           | XB5AVM4                                                                           | XB5AVM5                                                                             | XB5AVM6                                                                             | ZBVM1 (1)                                                                           |
| Monolithic product for standard mounting              | 24 VAC/VDC    | XB5EVB1                                                                           | XB5EVB3                                                                           | XB5EVB4                                                                           | XB5EVB5                                                                             | XB5EVB6                                                                             | XB5EVB8                                                                             |
|                                                       | 110...120 VAC | XB5EVG1                                                                           | XB5EVG3                                                                           | XB5EVG4                                                                           | XB5EVG5                                                                             | —                                                                                   | XB5EVG8                                                                             |
|                                                       | 230...240 VAC | XB5EVM1                                                                           | XB5EVM3                                                                           | XB5EVM4                                                                           | XB5EVM5                                                                             | XB5EVM6                                                                             | XB5EVM8                                                                             |
| Complete flush mounting head in 30.5 mm diameter hole | 24 VAC/VDC    | XB5FVB1                                                                           | XB5FVB3                                                                           | XB5FVB4                                                                           | XB5FVB5                                                                             | XB5FVB6                                                                             | ZBVB1 (2)                                                                           |
|                                                       | 110...120 VAC | XB5FVG1                                                                           | XB5FVG3                                                                           | XB5FVG4                                                                           | XB5FVG5                                                                             | XB5FVG6                                                                             | ZBVG1 (2)                                                                           |
|                                                       | 230...240 VAC | XB5FVM1                                                                           | XB5FVM3                                                                           | XB5FVM4                                                                           | XB5FVM5                                                                             | XB5FVM6                                                                             | ZBVM1 (2)                                                                           |

## 2 Illuminated pushbuttons with flush push with universal LED

| Color                                                 |               |  |  |  |  |  |  |
|-------------------------------------------------------|---------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Contact                                               |               | NO + NC                                                                           |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Connection                                            |               | Screw clamp terminals                                                             |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Complete product for standard mounting                | 24 VAC/VDC    | XB5AW31B5                                                                         | XB5AW33B5                                                                         | XB5AW34B5                                                                         | XB5AW35B5                                                                           | XB5AW36B5                                                                           | ZBVB1 (3)                                                                           |
|                                                       | 110...120 VAC | XB5AW31G5                                                                         | XB5AW33G5                                                                         | XB5AW34G5                                                                         | XB5AW35G5                                                                           | XB5AW36G5                                                                           | ZBVG1 (3)                                                                           |
|                                                       | 230...240 VAC | XB5AW31M5                                                                         | XB5AW33M5                                                                         | XB5AW34M5                                                                         | XB5AW35M5                                                                           | XB5AW36M5                                                                           | ZBVM1 (3)                                                                           |
| Complete flush mounting head in 30.5 mm diameter hole | 24 VAC/VDC    | XB5FW31B5                                                                         | XB5FW33B5                                                                         | XB5FW34B5                                                                         | XB5FW35B5                                                                           | XB5FW36B5                                                                           | ZBVB1 (4)                                                                           |
|                                                       | 110...120 VAC | XB5FW31G5                                                                         | XB5FW33G5                                                                         | XB5FW34G5                                                                         | XB5FW35G5                                                                           | XB5FW36G5                                                                           | ZBVG1 (4)                                                                           |
|                                                       | 230...240 VAC | XB5FW31M5                                                                         | XB5FW33M5                                                                         | XB5FW34M5                                                                         | XB5FW35M5                                                                           | XB5FW36M5                                                                           | ZBVM1 (4)                                                                           |



## 3 Selector switches and key switches

| Positions                                             |                      | 2  | 2  | 2  | 3  | 3  |
|-------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Contact                                               |                      | NO                                                                                    |                                                                                       | NO + NC                                                                               | 2 NO                                                                                    |                                                                                         |
| Connection                                            |                      | Screw clamp terminals                                                                 |                                                                                       |                                                                                       |                                                                                         |                                                                                         |
| Complete product for standard mounting                | Black handle         | XB5AD21                                                                               | XB5AD41                                                                               | XB5AD25                                                                               | XB5AD33                                                                                 | XB5AD53                                                                                 |
|                                                       | Long black handle    | XB5AJ21                                                                               | —                                                                                     | —                                                                                     | XB5AJ33                                                                                 | XB5AJ53                                                                                 |
|                                                       | Key switch (No. 455) | XB5AG21                                                                               | XB5AG61                                                                               | —                                                                                     | XB5AG33                                                                                 | —                                                                                       |
| Complete flush mounting head in 30.5 mm diameter hole | Black handle         | XB5FD21                                                                               | XB5FD41                                                                               | XB5FD25                                                                               | XB5FD33                                                                                 | XB5FD53                                                                                 |
|                                                       | Long black handle    | XB5FJ21                                                                               | —                                                                                     | —                                                                                     | XB5FJ33                                                                                 | XB5FJ53                                                                                 |
|                                                       | Key switch (No. 455) | XB5FG21                                                                               | XB5FG61                                                                               | —                                                                                     | XB5FG33                                                                                 | —                                                                                       |

## 4 Illuminated selector switches with universal LED and colored handle

| Stay put positions                                    |               | 2      |                                                                                         |                                                                                            | 3      |                                                                                           |                                                                                              |
|-------------------------------------------------------|---------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Color                                                 |               |  Green |  Red |  Orange |  Green |  Red |  Orange |
| Contact                                               |               | NO + NC                                                                                   |                                                                                         |                                                                                            |                                                                                             |                                                                                           |                                                                                              |
| Connection                                            |               | Screw clamp terminals                                                                     |                                                                                         |                                                                                            |                                                                                             |                                                                                           |                                                                                              |
| Complete product for standard mounting                | 24 VAC/VDC    | XB5AK123B5                                                                                | XB5AK124B5                                                                              | XB5AK125B5                                                                                 | XB5AK133B5                                                                                  | XB5AK134B5                                                                                | XB5AK135B5                                                                                   |
|                                                       | 110...120 VAC | XB5AK123G5                                                                                | —                                                                                       | —                                                                                          | —                                                                                           | —                                                                                         | —                                                                                            |
|                                                       | 230...240 VAC | XB5AK123M5                                                                                | XB5AK124M5                                                                              | XB5AK125M5                                                                                 | XB5AK133M5                                                                                  | XB5AK134M5                                                                                | XB5AK135M5                                                                                   |
| Complete flush mounting head in 30.5 mm diameter hole | 24 VAC/VDC    | XB5FK123B5                                                                                | XB5FK124B5                                                                              | XB5FK125B5                                                                                 | XB5FK133B5                                                                                  | XB5FK134B5                                                                                | XB5FK135B5                                                                                   |
|                                                       | 110...120 VAC | XB5FK123G5                                                                                | XB5FK124G5                                                                              | XB5FK125G5                                                                                 | XB5FK133G5                                                                                  | XB5FK134G5                                                                                | XB5FK135G5                                                                                   |
|                                                       | 230...240 VAC | XB5FK123M5                                                                                | XB5FK124M5                                                                              | XB5FK125M5                                                                                 | XB5FK133M5                                                                                  | XB5FK134M5                                                                                | XB5FK135M5                                                                                   |

## 5 Double- and triple-headed pushbuttons

| Type             | 1 flush<br>1 projecting | 2 flush   | 1 flush<br>1 projecting      | 2 flush<br>+ 1 red central projecting |
|------------------|-------------------------|-----------|------------------------------|---------------------------------------|
| Contact          | NO + NC                 |           | NO + NC with 24V pilot light | 2 NO + NC                             |
| Connection       | Screw clamp terminals   |           |                              |                                       |
| Complete product | XB5AL73415              | –         | XB5AW73731B5 –               | XB5AA731327 –                         |
| Head             | ZB5AL7341               | ZB5AA7121 | ZB5AW7L3741 –                | – ZB5AA71124                          |
| Body             | ZB5AZ105                |           | ZB5AZ105 + ZBVB1             | ZB5AZ103 + ZBE102                     |

(1) To get a complete pilot light, this body must be combined with a ZB5AZ009 socket and a ZB5AV083 head (to be ordered separately - see previous page).

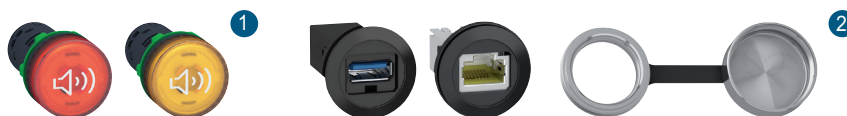
(2) To get a complete pilot light, this body must be combined with ZB5AZ009 socket and ZB5FV083 head (to be ordered separately).

(3) To get a complete illuminated pushbutton, this body must be combined with a ZB5AZ009 socket and a ZB5AW383 head (to be ordered separately - see previous page).

(4) To get a complete illuminated pushbutton, this body must be combined with ZB5AZ009 socket and ZB5FW383 head (to be ordered separately).



# Harmony XB4 and XB5 pushbuttons: other functions



## 1 Buzzer

| Color                |                   | Black                                                       | Red illumination              | Yellow illumination |                    |                        |
|----------------------|-------------------|-------------------------------------------------------------|-------------------------------|---------------------|--------------------|------------------------|
| Wiring connector     |                   | Screw clamp terminals                                       |                               |                     |                    |                        |
| Monolithic product   | 24 VAC/VDC        | <b>XB5KSB</b>                                               | <b>XB5KS2B4</b>               | <b>XB5KS2B8</b>     |                    |                        |
|                      | 110...120 VAC/VDC | <b>XB5KSG</b>                                               | <b>XB5KS2G4</b>               | <b>XB5KS2G8</b>     |                    |                        |
|                      | 230...240 VAC     | <b>XB5KSM</b>                                               | <b>XB5KS2M4</b>               | <b>XB5KS2M8</b>     |                    |                        |
| USB and RJ45 ports   |                   |                                                             |                               |                     |                    |                        |
| Description          |                   | Panel-mounted USB and RJ45 ports in 22.5 mm hole with notch |                               | Protection covers   |                    |                        |
| Characteristics      |                   | USB interface, type A jack                                  | Ethernet interface, RJ45 jack | Black               | Rigid, transparent | Metal                  |
| Connection type      |                   | USB port 3.0 A-A                                            | RJ45 port Cat. 6              | —                   | —                  | —                      |
| Degree of protection |                   | <b>IP20</b>                                                 | <b>IP20</b>                   | <b>IP65/IP67</b>    | <b>IP65/IP67</b>   | <b>IP65/IP67/IP69K</b> |
| Reference            |                   | <b>XB5PUSB3</b>                                             | <b>XB5PRJ45</b>               | <b>ZBSP1</b>        | <b>ZBSP2</b>       | <b>ZBSP3</b>           |

## 2 USB and RJ45 ports

|                      |                                                             |                               |                   |                    |                        |
|----------------------|-------------------------------------------------------------|-------------------------------|-------------------|--------------------|------------------------|
| Description          | Panel-mounted USB and RJ45 ports in 22.5 mm hole with notch |                               | Protection covers |                    |                        |
| Characteristics      | USB interface, type A jack                                  | Ethernet interface, RJ45 jack | Black             | Rigid, transparent | Metal                  |
| Connection type      | USB port 3.0 A-A                                            | RJ45 port Cat. 6              | –                 | –                  | –                      |
| Degree of protection | <b>IP20</b>                                                 | <b>IP20</b>                   | <b>IP65/IP67</b>  | <b>IP65/IP67</b>   | <b>IP65/IP67/IP69K</b> |
| Reference            | <b>XB5PUSB3</b>                                             | <b>XB5PRJ45</b>               | <b>ZBSP1</b>      | <b>ZBSP2</b>       | <b>ZBSP3</b>           |



## 3 Timers

|                  |                                                                                  |                 |                 |                 |                 |
|------------------|----------------------------------------------------------------------------------|-----------------|-----------------|-----------------|-----------------|
| Description      | Panel-mounted timer function with LED status and 1 static output in 22.5 mm hole |                 |                 |                 |                 |
| Output type      | 1 static output                                                                  |                 |                 |                 |                 |
| Time delay type  | Type A (delay on energization)                                                   |                 |                 |                 |                 |
| Time delay range |                                                                                  | 0.5...10 s      | 3...60 s        | 0.5...10 min    | 3...60 min      |
| Reference        | 24 VDC                                                                           | <b>XB5DTB22</b> | <b>XB5DTB23</b> | <b>XB5DTB24</b> | <b>XB5DTB25</b> |
|                  | 100...240 VAC 50/60 Hz                                                           | <b>XB5DTGM2</b> | <b>XB5DTGM3</b> | <b>XB5DTGM4</b> | <b>XB5DTGM5</b> |



## 4 3-phase pilot lights with integral LED

|                  |                                                                                |                  |                  |
|------------------|--------------------------------------------------------------------------------|------------------|------------------|
| Description      | Panel-mounted 3-phase voltage indicator pilot lights with 3 LEDs in 30 mm hole |                  |                  |
| Connection       | Faston connector, 6.3 mm                                                       |                  |                  |
| Colors           | Red, green, yellow                                                             | 3 white LEDs     |                  |
| Complete product | 400 VAC                                                                        | <b>XB5EV57K4</b> | <b>XB5EV57L4</b> |



## 5 XB4 complete potentiometers

|                    |                                                       |                      |                      |
|--------------------|-------------------------------------------------------|----------------------|----------------------|
| Description        | Panel-mounted complete potentiometers in 22.5 mm hole |                      |                      |
| Connection         | Screw terminals                                       |                      |                      |
| Resistance (in kΩ) | 1                                                     | 4.7                  | 10                   |
| Reference          | <b>XB4BD912R1K</b>                                    | <b>XB4BD912R4K7</b>  | <b>XB4BD912R10K</b>  |
| Resistance (in kΩ) | 47                                                    | 100                  | 470                  |
| Reference          | <b>XB4BD912R47K</b>                                   | <b>XB4BD912R100K</b> | <b>XB4BD912R470K</b> |

## 6 XB5 complete potentiometers

|                    |                                                       |                      |                      |                     |
|--------------------|-------------------------------------------------------|----------------------|----------------------|---------------------|
| Description        | Panel-mounted complete potentiometers in 22.5 mm hole |                      |                      |                     |
| Connection         | Screw terminals                                       |                      |                      |                     |
| Resistance (in kΩ) | 1                                                     | 2.2                  | 4.7                  | 10                  |
| Reference          | <b>XB5AD912R1K</b>                                    | <b>XB5AD912R2K2</b>  | <b>XB5AD912R4K7</b>  | <b>XB5AD912R10K</b> |
| Resistance (in kΩ) | 47                                                    | 100                  | 470                  |                     |
| Reference          | <b>XB5AD912R47K</b>                                   | <b>XB5AD912R100K</b> | <b>XB5AD912R470K</b> |                     |



# Harmony: other functions



## 1 Harmony XB5S biometric switches standalone

|               |                   |            |
|---------------|-------------------|------------|
| Receiver      | Monostable        | Bistable   |
| Power supply  | 24 VDC/PNP output |            |
| Cable 2 m     | XB5S2B2L2         | XB5S1B2L2  |
| M12 connector | XB5S2B2M12        | XB5S1B2M12 |

## 2 Harmony XB5S biometric switches RGPD/USB

|               |                   |            |                 |            |  |
|---------------|-------------------|------------|-----------------|------------|--|
| Receiver      | Monostable        |            | Bistable        |            |  |
| Power supply  | 24 VDC/PNP output |            |                 |            |  |
| Features      | Standalone RGPD   | USB RGPD   | Standalone RGPD | USB RGPD   |  |
| Cable 2 m     | XB5S6B2L2         | XB5S9B2L2  | XB5S7B2L2       | XB5S8B2L2  |  |
| M12 connector | XB5S6B2M12        | XB5S9B2M12 | XB5S7B2M12      | XB5S8B2M12 |  |



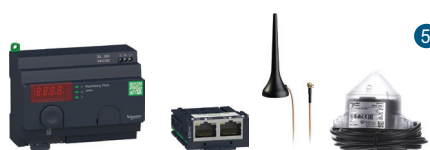
## 3 Harmony XB5 digital panel meter

|              |                |           |
|--------------|----------------|-----------|
| Product type | Display module |           |
| LED color    | Green          | Red       |
| Input range  | 4...20 mA DC   |           |
| Reference    | XBH1AA0R4      | XB1HAA0G4 |



## 4 Harmony XB4R/XB5R wireless and batteryless pushbuttons

|              |                                |          |                        |
|--------------|--------------------------------|----------|------------------------|
| Receiver     | Non-programmable + 1 black cap |          |                        |
| Power supply | 24 VDC                         |          |                        |
| Pushbutton   | 1 plastic                      | 1 metal  | 1 plastic in handy box |
| Reference    | XB5RFB01                       | XB4RFA02 | XB5RMB03               |



## 5 Harmony Hub wireless gateway

|                 |                     |                    |
|-----------------|---------------------|--------------------|
| Receiver        | Modbus/TCP Ethernet | Modbus serial line |
| Power supply    | 24 VDC              |                    |
| Reference       | ZBRN1               | ZBRN2              |
| Accessories     | ZBRCETH             | —                  |
| Relay antenna   | ZBRA1               | ZBRA1              |
| Passive antenna | ZBRA2               | ZBRA2              |

**Note:** A wide range of wireless sensors can be connected to the Harmony Hub gateway to collect functional and environmental data.

# Accessories for Harmony pushbuttons



## 1 Harmony Hub Ecosystem (1)

|                   |                                |                                                |                                                         |
|-------------------|--------------------------------|------------------------------------------------|---------------------------------------------------------|
| Type              | Temperature & Humidity Sensor  | Self-powered current monitoring wireless clamp | Rope pull switch with wireless battery-less transmitter |
| Measurement Range | -25...90 °C at 35 °C 10%...98% | 0.5 A to 500 A                                 | –                                                       |
| Reference         | ZBRTT1                         | ZBRTC●                                         | ZBRP1                                                   |

## 2 Contact blocks (for XB4 and XB5 pushbuttons)

|                 |                       |        |                    |                        |         |         |                                    |          |
|-----------------|-----------------------|--------|--------------------|------------------------|---------|---------|------------------------------------|----------|
| Type            | Electrical blocks     |        |                    |                        |         |         | Body fixing collars for XB4 or XB5 |          |
| Contact         | NO                    | NC     | NC with monitoring | NO                     | NC      | –       | –                                  | –        |
| Connection      | Screw clamp terminals |        |                    | Spring clamp terminals |         |         | –                                  | –        |
| Sold in lots of | 5                     | 5      | 5                  | 4                      | 4       | 10      |                                    |          |
| Reference       | Contact block         | ZBE101 | ZBE102             | ZBE302                 | ZBE1015 | ZBE1025 | ZB4BZ009                           | ZB5AZ009 |

## 3 Light blocks with integral LED (for XB4 and XB5 pushbuttons)

|            |               |               |                                                                                                            |        |                        |
|------------|---------------|---------------|------------------------------------------------------------------------------------------------------------|--------|------------------------|
| Color      |               |               | Universal for all colour  |        |                        |
| Connection |               |               | Screw clamp terminals                                                                                      |        | Spring clamp terminals |
| Reference  | Contact block | 24 VAC/VDC    | ZBVB1                                                                                                      | ZBVB15 |                        |
|            |               | 110...120 VAC | ZBVG1                                                                                                      | ZBVG15 |                        |
|            |               | 230...240 VAC | ZBVM1                                                                                                      | ZBVM15 |                        |

## 4 Wireless and battery-less interface to be used with ZBRR and ZBRN (for XB4 and XB5 pushbuttons)

|           |                     |                             |
|-----------|---------------------|-----------------------------|
| Function  | Push only (1 state) | Push and release (2 states) |
| Reference | ZBRT1               | ZBRT2                       |

## 5 Visual feedback for wireless pushbutton

|           |                                                                              |
|-----------|------------------------------------------------------------------------------|
| Function  | Visual feedback confirming the signal reception of ZBRT wireless transmitter |
| Reference | ZBRV1                                                                        |

## 6 Legend holders 30 x 40 mm for 8 X 27 mm legends

|                                         |         |       |         |       |         |                                   |         |              |
|-----------------------------------------|---------|-------|---------|-------|---------|-----------------------------------|---------|--------------|
| White marking/Red or black background   |         |       |         |       |         | Black marking/Yellow background   |         |              |
| O                                       | –       | I     | ZBY2147 | AUTO  | –       | ARRET D'URGENCE                   | ZBY9120 | ZBY9130T (2) |
| OFF                                     | ZBY2312 | ON    | ZBY2311 | START | ZBY2303 | EMERGENCY STOP                    | ZBY9320 | ZBY9330T (2) |
| Without marking/Red or black background |         |       |         |       |         | Without marking/Yellow background |         |              |
| Red                                     | ZBY2101 | Black | ZBY2101 |       |         |                                   | ZBY9121 |              |



## 7 Illuminated ring without legend for customization (use with ZBY9W101)

|                |                                           |                                           |
|----------------|-------------------------------------------|-------------------------------------------|
| Description    | Ø60 mm, can be used with all Ø22 mm heads | Ø60 mm, can be used with all Ø22 mm heads |
| Marking        | No Marking                                | No Marking                                |
| Signaling      | Fixed, Red                                | Fixed, Red + white                        |
| Supply Voltage | 24 V                                      | 24 V                                      |
| Reference      | ZBY9W2B501                                | ZBY9W3B501                                |

## 8 Customizable Circular legend for illuminated ring without legend (2)

|             |          |
|-------------|----------|
| Description | Ø60 mm   |
| Reference   | ZBY9W101 |

## 9 Legend holders for flush mounting head

|                                  |        |                   |        |                                                            |          |                   |          |
|----------------------------------|--------|-------------------|--------|------------------------------------------------------------|----------|-------------------|----------|
| Without legend                   |        |                   |        | With blank legend without marking, black or red background |          |                   |          |
| 8 x 27 mm legend for XB4F & XB5F | ZBZF32 | 18 x 27 mm legend | ZBZF33 | 8 x 27 mm legend                                           | ZBYF2101 | 18 x 27 mm legend | ZBYF6101 |

## 10 Transparent boots for pushbuttons (sold in lots of 10)

|                 |                     |                |                              |                      |               |                                |                                                       |
|-----------------|---------------------|----------------|------------------------------|----------------------|---------------|--------------------------------|-------------------------------------------------------|
| For pushbuttons | Circular projecting | Circular flush | Circular flush or projecting | Flush, double headed | Triple headed | Flush/projecting double headed | Flush/projecting double headed for water jet cleaning |
| Reference       | ZBP0                | ZBPA           | ZBP0A                        | ZBA708               | ZBA709        | ZBA710                         | ZBA711                                                |

## 11 Flush mounting kits

|                      |                                   |                                 |                                                            |               |                                               |                                                            |               |
|----------------------|-----------------------------------|---------------------------------|------------------------------------------------------------|---------------|-----------------------------------------------|------------------------------------------------------------|---------------|
| For use with         | Pushbuttons and pilot lights      |                                 |                                                            |               | Selector switches and illuminated pushbuttons |                                                            |               |
| Range and appearance | XB4 chromium plated, depth 9.8 mm | XB5 plastic, black depth 9.8 mm | XB5 plastic, black, depth 12.3 mm with 1- or 2-line legend |               | XB5 plastic, black, depth 12.3 mm             | XB5 plastic, black, depth 12.3 mm with 1- or 2-line legend |               |
|                      |                                   |                                 | 1-line legend                                              | 2-line legend |                                               | 1-line legend                                              | 2-line legend |
| Reference            | ZB4BZ021                          | ZB5AZ021                        | ZB5AZ023                                                   | ZB5AZ025      | ZB5AZ022                                      | ZB5AZ024                                                   | ZB5AZ026      |

(1) These are examples of compatible sensors, more information is available in the product catalog.

(2) Create customized marking on this reference using the web customization tool.



# Harmony XAP die-cast metal enclosures



|                                        |                                                            |           |                 |                 |                 |                  |           |                 |          |          |
|----------------------------------------|------------------------------------------------------------|-----------|-----------------|-----------------|-----------------|------------------|-----------|-----------------|----------|----------|
| 1                                      | Harmony XAPK (yellow RAL 1004) (1)                         |           |                 |                 |                 |                  |           |                 |          |          |
| Usable depth                           |                                                            | 49 mm     |                 | 74.5 mm         |                 |                  |           |                 |          |          |
| Number of cut-outs (22 mm)             |                                                            | 0         | 1               | 0               | 1               |                  |           |                 |          |          |
| Dimension (W x H)/<br>Cable gland hole | 80 x 80 / M20                                              | XAPK11    | XAPK1201        | XAPK14          | XAPK1501        |                  |           |                 |          |          |
| 2                                      | Harmony XAPD with 49 mm usable depth (grey RAL 7035) (1)   |           |                 |                 |                 |                  |           |                 |          |          |
| Number of cut-outs (22 mm)             |                                                            | 0         | 1               | 2               | 3               | 4                | 6         |                 |          |          |
| Dimension (W x H)/<br>Cable gland hole | 80 x 80 / M20                                              | XAPD11    | XAPD1201        | XAPD1202        | –               | –                | –         |                 |          |          |
|                                        | 80 x 130 / M20                                             | XAPD21    | –               | XAPD2202        | XAPD2203        | XAPD2204         | –         |                 |          |          |
|                                        | 80 x 175 / M25                                             | XAPD31    | –               | –               | XAPD3203        | XAPD3204         | XAPD3206  |                 |          |          |
| 3                                      | Harmony XAPD with 74.5 mm usable depth (grey RAL 7035) (1) |           |                 |                 |                 |                  |           |                 |          |          |
| Number of cut-outs (22 mm)             |                                                            | 0         | 1               | 2               | 3               | 4                | 5         | 6               | 8        | 10       |
| Dimension (W x H)/<br>Cable gland hole | 80 x 80 / M20                                              | XAPD14    | XAPD1501        | XAPD1502        | –               | –                | –         | –               | –        | –        |
|                                        | 80 x 130 / M20                                             | XAPD24    | –               | XAPD2502        | XAPD2503        | XAPD2504         | –         | –               | –        | –        |
|                                        | 80 x 175 / M25                                             | XAPD34    | –               | –               | XAPD3503        | XAPD3504         | –         | XAPD3506        | –        | –        |
|                                        | 80 x 220 / M25                                             | XAPD44    | –               | –               | –               | XAPD4504         | XAPD4505  | XAPD4506        | XAPD4508 | –        |
|                                        | 80 x 310 / M32                                             | XAPD54    | –               | –               | –               | –                | XAPD5505  | –               | XAPD5508 | XAPD5510 |
| Number of cut-outs (30 mm)             |                                                            | 0         | 1               | 2               | 3               | 4                | 5         | 6               | 8        | 10       |
| Dimension (W x H)/<br>Cable gland hole | 80 x 80 / M20                                              | –         | XAPD1601<br>(2) | –               | –               | –                | –         | –               | –        | –        |
|                                        | 80 x 130 / M20                                             | –         | –               | XAPD2602<br>(2) | –               | –                | –         | –               | –        | –        |
|                                        | 80 x 175 / M25                                             | –         | –               | –               | XAPD3603<br>(2) | –                | –         | –               | –        | –        |
|                                        | 80 x 220 / M25                                             | –         | –               | –               | –               | XAPD4604<br>(2)  | –         | –               | –        | –        |
|                                        | 80 x 310 / M32                                             | –         | –               | –               | –               | –                | –         | XAPD5606<br>(2) | –        | –        |
| 4                                      | Harmony XAPO with 74.5 mm usable depth (orange RAL 2008)   |           |                 |                 |                 |                  |           |                 |          |          |
| Cut-outs diameter                      |                                                            | 22 mm     |                 |                 |                 | 30 mm with notch |           |                 |          |          |
| Number of cut-outs                     |                                                            | 1         | 2               | 3               | 4               | 6                | 1         | 2               | 3        | 4        |
| Dimension (W x H)/<br>Cable gland hole | 80 x 80 / M20                                              | XAPO1501  | –               | –               | –               | –                | XAPO1601  | –               | –        | –        |
|                                        | 80 x 130 / M20                                             | –         | XAPO2502        | –               | –               | –                | –         | XAPO2602        | –        | –        |
|                                        | 80 x 175 / M25                                             | –         | –               | XAPO3503        | XAPO3504        | –                | –         | –               | XAPO3603 | –        |
|                                        | 80 x 220 / M25                                             | –         | –               | –               | –               | XAPO4506         | –         | –               | –        | XAPO4604 |
| 5                                      | Harmony XAPG with 49 mm usable depth (grey RAL 7032)       |           |                 |                 |                 |                  |           |                 |          |          |
| Number of cut-outs (22 mm)             |                                                            | 0         | 1               | 2               | 3               | 4                |           |                 |          |          |
| Dimension (W x H)/<br>Cable gland hole | 80 x 80 / 3/4 NPT                                          | XAPG19100 | XAPG19201       | XAPG19702       | –               | –                |           |                 |          |          |
|                                        | 80 x 130 / 3/4 NPT                                         | –         | –               | XAPG29202       | XAPG29703       |                  |           |                 |          |          |
|                                        | 80 x 175 / 3/4 NPT                                         | XAPG39100 | –               | –               | XAPG39203       | XAPG39704        |           |                 |          |          |
| 6                                      | Harmony XAPG with 74.5 mm usable depth (grey RAL 7032)     |           |                 |                 |                 |                  |           |                 |          |          |
| Number of cut-outs (22 mm)             |                                                            | 0         | 1               | 2               | 3               | 4                | 5         |                 |          |          |
| Dimension (W x H)/<br>Cable gland hole | 80 x 80 / 3/4 NPT                                          | XAPG19400 | XAPG19501       | –               | –               | –                | –         |                 |          |          |
|                                        | 80 x 130 / 3/4 NPT                                         | –         | –               | XAPG29502       | –               | –                | –         |                 |          |          |
|                                        | 80 x 175 / 3/4 NPT                                         | –         | –               | –               | XAPG39503       | XAPG39804        | –         |                 |          |          |
|                                        | 80 x 220 / 3/4 NPT                                         | –         | –               | –               | –               | XAPG49504        | –         |                 |          |          |
|                                        | 80 x 310 / 3/4 NPT                                         | –         | –               | –               | –               | –                | XAPG59505 |                 |          |          |
| Number of cut-outs (30 mm)             |                                                            | 0         | 1               | 2               | 3               | 4                | 5         |                 |          |          |
| Dimension (W x H)/<br>Cable gland hole | 80 x 80 / 3/4 NPT                                          | –         | –               | –               | –               | –                | –         |                 |          |          |

(1) Full customization of front cover with legend panel is possible through online product configurator.

(2) Flush mounting head can be mounted with ZB4FBZ014 accessory.

# Harmony XAL plastic control stations



1

Control stations with 1 pushbutton, type XALD

|                                |                  |                                                                                         |                                                                                         |                                                                                       |                                                                                            |                                                                                         |
|--------------------------------|------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Number and type of pushbuttons |                  | 1 start or stop                                                                         |                                                                                         |                                                                                       | 1 start and stop                                                                           |                                                                                         |
| Color or type                  |                  |  Green |  Green |  Red |  Handle |  Key |
| Marking                        |                  | "I" (white)                                                                             | "START" (white)                                                                         | "O" (white)                                                                           | "O-I" (white)                                                                              | "O-I" (white)                                                                           |
| Contact                        |                  | NO                                                                                      |                                                                                         | NC                                                                                    | NO                                                                                         |                                                                                         |
| Connection                     |                  | Screw clamp terminals                                                                   |                                                                                         |                                                                                       |                                                                                            |                                                                                         |
| Complete product               | Flush pushbutton | XALD102 (1)                                                                             | XALD103 (1)                                                                             | XALD112                                                                               | –                                                                                          | –                                                                                       |
|                                | Selector switch  | –                                                                                       | –                                                                                       | –                                                                                     | XALD134 (1)                                                                                | XALD144 (1)                                                                             |

2

Control stations with 1 Emergency stop pushbutton, type XALK

|                                |  |                                                                                       |             |              |              |             |          |              |
|--------------------------------|--|---------------------------------------------------------------------------------------|-------------|--------------|--------------|-------------|----------|--------------|
| Number and type of pushbuttons |  | 1 x Ø 40 trigger action Emergency stop mushroom head pushbutton                       |             |              |              |             |          |              |
| Color                          |  |  Red |             |              |              |             |          |              |
| Type                           |  | Turn to release                                                                       |             |              |              | Key release |          |              |
| Contact                        |  | 1 NC monitoring                                                                       | NC          | 2 NC         | 2 NC + NO    | NC          | 2 NC     | 2 NC + NO    |
| Connection                     |  | Screw clamp terminals                                                                 |             |              |              |             |          |              |
| Complete product               |  | XALK1786                                                                              | XALK178 (1) | XALK178F (1) | XALK178G (1) | XALK188 (1) | XALK188F | XALK188G (1) |

3

Control stations with pushbuttons, type XALD

|                                |  |                                 |                 |                      |                          |                |              |
|--------------------------------|--|---------------------------------|-----------------|----------------------|--------------------------|----------------|--------------|
| Number and type of pushbuttons |  | 2 start and stop flush mounting |                 |                      | 2 up/down flush mounting |                |              |
| Color/Marking                  |  | 1 "I" green                     | 1 "Start" green | 1 pilot light 24 VDC | 1 "Up" white             |                |              |
|                                |  | 1 "O" red                       | 1 "Stop" red    | 1 "I" green          | 1 "Down" black           | 1 "O" red      | 1 E-stop red |
|                                |  | –                               | –               | 1 "O" red            | –                        | 1 "Down" black |              |
| Contact                        |  | NO + NC                         |                 |                      | 2 NO                     |                | NO + NC + NO |
| Connection                     |  | Screw clamp terminals           |                 |                      |                          |                |              |
| Complete product               |  | XALD213 (1)                     | XALD215 (1)     | XALD363B (1)         | XALD222 (1)              | XALD324 (1)    | XALD328 (1)  |

(1) Add H7 for UL/CSA conforming version, e.g. XALD102H7.

# Harmony XAC pendant control stations



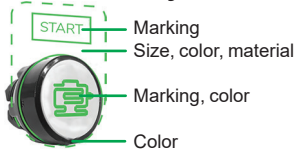
| Harmony XACA pendant control stations for Ø 22 plastic signaling units |             |          |          |         |         |
|------------------------------------------------------------------------|-------------|----------|----------|---------|---------|
| Number of pushbuttons                                                  | 2           | 3        | 4        | 6       | 8       |
| Type                                                                   | Pistol grip |          | Standard |         |         |
| Color                                                                  | Yellow      |          | Yellow   |         |         |
| Pushbutton 1: Raise (1)                                                | Yes         | Yes      | Yes      | Yes     | Yes     |
| Pushbutton 2: Lower (1)                                                | Yes         | Yes      | Yes      | Yes     | Yes     |
| Emergency stop (2)                                                     | –           | Yes      | –        | –       | –       |
| Pushbutton 3: Left (1)                                                 | –           | –        | Yes      | Yes     | Yes     |
| Pushbutton 4: Right (1)                                                | –           | –        | Yes      | Yes     | Yes     |
| Pushbutton 5: Forward (1)                                              | –           | –        | –        | Yes     | Yes     |
| Pushbutton 6: Reverse (1)                                              | –           | –        | –        | Yes     | Yes     |
| Pushbutton 7: O (1)                                                    | –           | –        | –        | –       | Yes     |
| Pushbutton 8: I (1)                                                    | –           | –        | –        | –       | Yes     |
| Reference                                                              | XACA201     | XACA2013 | XACA471  | XACA671 | XACA871 |

(1) With NO contact.

(2) With NC contact.

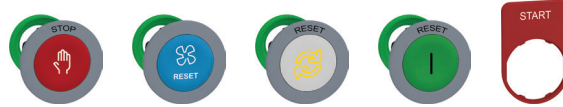


# Choose your style with Harmony customization tool



## Pushbutton Ø 22 mm: base product customizable (1)

| Type                                      | Harmony XB4B, metal | Harmony XB5A, plastic |
|-------------------------------------------|---------------------|-----------------------|
| Pushbutton, black, 1 NO contact block     | XB4BA21             | XB5AA21               |
| Pilot light, red, 24 VAC/VDC              | XB4BVB4             | XB5AVB4               |
| Legend plate, 30 x 50 mm, dark grey color | ZBYM6101            | ZBYP6101              |
| Legend holder, 30 x 50 mm                 | —                   | ZBY6101               |



## Flush mounted pushbutton: base product customizable (1)

| Type                                             | Harmony XB4F, metal | Harmony XB5F, plastic |
|--------------------------------------------------|---------------------|-----------------------|
| Pushbutton, black, 1 NO contact block            | XB4FA21             | XB5FA21               |
| Selector switch, 2 positions, 1 NO contact block | XB4FD21             | XB5FD21               |
| Pilot light, red, 24 VAC/VDC                     | XB4FVB4             | XB5FVB4               |
| Legend plate, 30 x 50 mm, dark grey color        | —                   | ZBYFP6101             |
| Legend holder, 40 x 50mm                         | —                   | ZBYF2101              |



## Plastic control station: base product customizable (1)

| Type    | Grey color | Yellow color |
|---------|------------|--------------|
| 1 hole  | XALD01     | XALK01       |
| 2 holes | XALD02     | —            |
| 5 holes | XALD05     | —            |



## Legend panel: base product customizable (1)

| Template size (mm/in.)  | Reference    |
|-------------------------|--------------|
| 100 x 100/3.93 x 3.93   | ZBYLEG101000 |
| 300 x 400/11.81 x 15.74 | ZBYLEG304000 |
| 500 x 400/19.68 x 15.74 | —            |

### (1) Fast, easy, and intuitive: for other color or type

- Go to [Product Selector](#)
- Select your device
- Define your customization

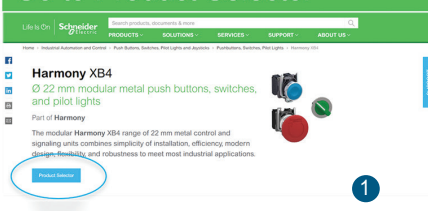
> Metal



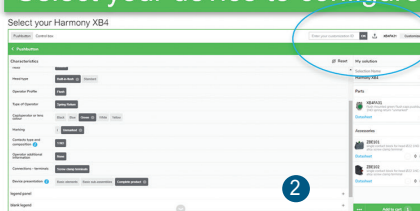
> Plastic



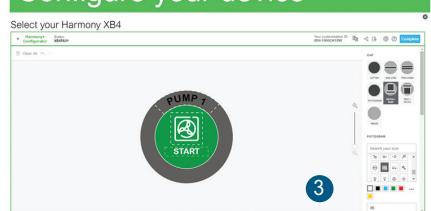
### Go to Product Selector



### Select your device to configure



### Configure your device



# Harmony XB7 Ø 22 monolithic pushbuttons



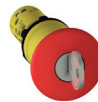
## Pushbutton with flush push, unmarked

|                  |                                                                                         |                                                                                         |                                                                                         |                                                                                       |                                                                                          |                                                                                        |
|------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Color            |  White |  Black |  Green |  Red |  Yellow |  Blue |
| Contact          | NO                                                                                      |                                                                                         |                                                                                         | NO + NC                                                                               |                                                                                          |                                                                                        |
| Connection       | Screw clamp terminals                                                                   |                                                                                         |                                                                                         |                                                                                       |                                                                                          |                                                                                        |
| Complete product | XB7NA11                                                                                 | XB7NA21                                                                                 | XB7NA31                                                                                 | XB7NA45                                                                               | –                                                                                        | XB7NA65                                                                                |



## Pushbutton with flush push, marked

| Color            | White                 | Black             | Green            | Green            | Red              |
|------------------|-----------------------|-------------------|------------------|------------------|------------------|
| Marking          | ↑                     | ↓                 | "I" (white)      | "START" (white)  | "STOP" (white)   |
| Contact          | NO                    |                   |                  | NO               | NC               |
| Connection       | Screw clamp terminals |                   |                  |                  |                  |
| Complete product | <b>XB7NA11341</b>     | <b>XB7NA21343</b> | <b>XB7NA3131</b> | <b>XB7NA3133</b> | <b>XB7NA4234</b> |



## Ø 40 trigger action Emergency stop mushroom head pushbuttons

| Color            | Red                   |                            |                     |
|------------------|-----------------------|----------------------------|---------------------|
| Contact          | NO + NC<br>Push-pull  | NO + NC<br>Turn to release | 2 NC<br>Key release |
| Connection       | Screw clamp terminals |                            |                     |
| Complete product | <b>XB7NT845</b>       | <b>XB7NS8445</b>           | <b>XB7NS9444</b>    |



## Pilot lights with integral LED

| Color            |            |  Green |  Red |  Yellow |  Blue |  Clear |  Orange |
|------------------|------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Connection       |            | Screw clamp terminals                                                                     |                                                                                         |                                                                                            |                                                                                            |                                                                                             |                                                                                              |
| Complete product | 24 VAC/VDC | XB7EV03BP                                                                                 | XB7EV04BP                                                                               | XB7EV05BP                                                                                  | XB7EV06BP                                                                                  | XB7EV07BP                                                                                   | XB7EV08BP                                                                                    |
|                  | 120 VAC    | XB7EV03GP                                                                                 | XB7EV04GP                                                                               | XB7EV05GP                                                                                  | XB7EV06GP                                                                                  | XB7EV07GP                                                                                   | XB7EV08GP                                                                                    |
|                  | 230 VAC    | XB7EV03MP                                                                                 | XB7EV04MP                                                                               | XB7EV05MP                                                                                  | XB7EV06MP                                                                                  | XB7EV07MP                                                                                   | XB7EV08MP                                                                                    |



## Illuminated pushbutton with flush push with integral LED

| Color            |            |  Green |  Red |  Orange |  Blue |  Clear |  Yellow |
|------------------|------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Contact          |            | NO + NC                                                                                   |                                                                                         |                                                                                            |                                                                                            |                                                                                             |                                                                                              |
| Connection       |            | Screw clamp terminals                                                                     |                                                                                         |                                                                                            |                                                                                            |                                                                                             |                                                                                              |
| Complete product | 24 VAC/VDC | XB7NW33B1                                                                                 | XB7NW34B1                                                                               | XB7NW35B1                                                                                  | XB7NW36B1                                                                                  | XB7NW37B1                                                                                   | XB7NW38B1                                                                                    |
|                  | 120 VAC    | –                                                                                         | XB7NW34G1                                                                               | –                                                                                          | –                                                                                          | –                                                                                           | –                                                                                            |
|                  | 230 VAC    | XB7NW33M1                                                                                 | XB7NW34M1                                                                               | –                                                                                          | –                                                                                          | –                                                                                           | –                                                                                            |

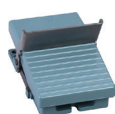


## Selector switches with black handle

| Positions        |            | 2 ∨                   | 2 ∨     | 3 ∨     | 2 ∨                           | 3 ∨                               |
|------------------|------------|-----------------------|---------|---------|-------------------------------|-----------------------------------|
| Type             |            | Stay put              |         |         | Key withdrawal in LH position | Key withdrawal in center position |
| Contact          |            | NO                    | NO + NC | 2 NO    | NO                            | 2 NO                              |
| Connection       |            | Screw clamp terminals |         |         |                               |                                   |
| Complete product | 24 VAC/VDC | XB7ND21               | XB7ND25 | XB7ND33 | XB7NG21                       | XB7NG33                           |



## Other control components



### Harmony XD4 joystick controllers

|                      |                    |         |               |         |
|----------------------|--------------------|---------|---------------|---------|
| Number of directions | 2                  | 4       | 2             | 4       |
| Contact              | 1 NO per direction |         |               |         |
| Position             | Stay put           |         | Spring return |         |
| Reference            | XD4PA12            | XD4PA14 | XD4PA22       | XD4PA24 |

### Harmony cam switches

| Function           | Ammeter   | Voltmeter | Changeover | ON-OFF switches |           | Stepping  |
|--------------------|-----------|-----------|------------|-----------------|-----------|-----------|
| Thermal current    | 12 Amps   |           |            |                 |           |           |
| Number of poles    | 6         | 6         | 4          | 1               | 3         | 3         |
| Multi-screw fixing | K1F003MLH | K1F027MLH | K1D002ULH  | K1A001ALH       | K1C003ALH | K1C003QLH |
| Ø 22 fixing        | K1F003MCH | K1F027MCH | K1D002UCH  | K1A001ACH       | —         | K1C003QCH |

### Harmony XPE foot switches

|                           |               |                |             |            |             |              |
|---------------------------|---------------|----------------|-------------|------------|-------------|--------------|
| Material/Color            | Plastic black | Plastic yellow | Metal blue  | Metal blue | Metal blue  | Metal orange |
| Cover                     | No            | Yes            | No          |            | Yes         |              |
| Contact                   | 1 NC + 1 NO   |                | 2 NC + 2 NO |            | 1 NC + 1 NO |              |
| Without trigger mechanism | XPEA110       | XPEY310        | XPEM110     | XPEM111    | XPEM310     | XPER310      |
| Trigger mechanism         | –             | XPEY510        | XPEM810     | –          | XPEM510     | XPER510      |

## Harmony remote control system and pendant control stations for hoisting



### Harmony Pocket Remote

|             |                     |                 |        |           |        |        |
|-------------|---------------------|-----------------|--------|-----------|--------|--------|
| Transmitter | No. of push-buttons | 3               | 4      | 6         | 8      | 10     |
|             | Reference           | ZART03          | ZART04 | ZART06    | ZART08 | ZART10 |
| Receiver    | Connection          | Pre-wired 1.5 m |        |           |        |        |
|             | Power supply        | 12-24 VDC       |        |           |        |        |
|             | Standard output     | 5               |        | 11        |        |        |
|             | Reference           | ZARB05WSP       |        | ZARB11WSP |        |        |

### Harmony wireless remote control system (compact)

|                              |                 |                                                |  |  |                 |             |
|------------------------------|-----------------|------------------------------------------------|--|--|-----------------|-------------|
| Motion pushbutton            |                 | 6                                              |  |  |                 |             |
| Auxiliary pushbuttons        |                 | 1                                              |  |  |                 |             |
| LED or display               |                 | LED                                            |  |  |                 |             |
| Emergency stop mushroom head |                 | 1 Emergency stop mushroom head SIL 2 cat 3 PLd |  |  |                 |             |
| Base                         | Standard output | 10                                             |  |  |                 |             |
|                              | Safety output   | 2                                              |  |  |                 |             |
| Handheld                     | Reference       | ZART8LS                                        |  |  |                 |             |
| Base                         | Power supply    | 48...240 VAC                                   |  |  | 24 VDC          |             |
|                              | Connection      | Cable gland                                    |  |  | Pre-wired 1.5 m |             |
|                              | Reference       | ZARB10WS                                       |  |  | ZARB10WSP       | ZARB10WSPDC |

### Harmony wireless remote control system (standard)

|                              |                 |                                                |         |         |
|------------------------------|-----------------|------------------------------------------------|---------|---------|
| Motion pushbutton            |                 | 6                                              |         |         |
| Auxiliary pushbuttons        |                 | 2                                              | 2       | 6       |
| LED or display               |                 | LED                                            | Display | Display |
| Emergency stop mushroom head |                 | 1 Emergency stop mushroom head SIL 3 cat 4 Ple |         |         |
| Base                         | Standard output | 12                                             | 12      | 18      |
|                              | Safety output   | 2                                              | 2       | 2       |
| Inputs                       |                 | –                                              | –       | 18      |
| Handheld                     | Reference       | ZART8L                                         | ZART8D  | ZART12D |
| Base                         | Reference       | ZARB12W                                        | ZARB18W | ZARB18W |
|                              | Connection      | Cable gland                                    |         |         |





## 02. Harmony signaling devices





## Harmony XVB7 Tower Lights: Redefining Signaling Excellence

Harmony Modular Tower Lights, **launching in 2025**, feature a sleek, new design incorporating energy-efficient LEDs to maximize brightness while minimizing energy consumption.

With easy installation and a modular concept, Harmony Modular Tower Lights simplify your selection journey and enable operational efficiency.

### Features

#### Harmony XVB7



High brightness with low power consumption realized via energy efficient LED



Elevated design with a modern twist to enhance machine aesthetic



Modular design for adaptability, ease of maintenance and low inventory



Wide base variety with the option to be connected via USB & IO-link base



Adjustable and customizable sounder with maximum sound pressure of up to 102dB



### Aesthetic

- Elevated **Modern Design**
- Available in both **dark grey** & **silver** body color



### Visible

- 4X improvement on **brightness**
- Audible signal **up to 102dB**



### Flexible

- **Modular** concept provides flexibility in selection
- **IO-Link** and **USB** connections to enable more operation capability



### Efficient

- More **rationalized construction**, reduce 3X skus with same functional coverage
- Reduce wiring time up to 95% with **pushing terminal** and **M12** connection
- Power optimization via **energy efficiency LED**

### Technical Benefits

#### Harmony XVB7



■ Conformity with IEC, CUL and CCC standards, as well as CE marking

■ Up to IP66 and type 4X protection ratings

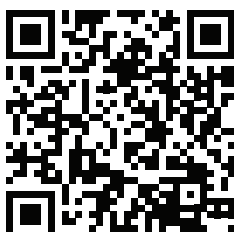
■ High shock and vibration resistance up to 6g

■ Energy efficient LED with operating life up to 50,000 hours

■ Save up to 75% wiring time with M12 connection and push-in terminal

■ High brightness level with illuminance up to 3000cd/m2

Learn more about  
Harmony Modular  
Tower Lights



Configure your  
Harmony Modular  
Tower Lights



# Harmony XVB7 signaling solutions

2



## Harmony XVB7 modular tower lights Ø 70 mm

1

Light modules with steady light signal (IP66)

|                                   |                                                                                         |                                                                                       |                                                                                           |                                                                                          |                                                                                           |                                                                                            |
|-----------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Light source energy-efficient LED | LED, included 24 V AC/DC                                                                |                                                                                       |                                                                                           |                                                                                          |                                                                                           |                                                                                            |
| Color                             |  Green |  Red |  Orange |  Blue |  White |  Yellow |
| Reference                         | XVB7C23                                                                                 | XVB7C24                                                                               | XVB7C25                                                                                   | XVB7C26                                                                                  | XVB7C27                                                                                   | XVB7C28                                                                                    |

2

Light modules with blinking light signal (IP66)

|                                   |                                                                                         |                                                                                       |                                                                                           |                                                                                          |                                                                                           |                                                                                            |
|-----------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Light source energy-efficient LED | LED, included 24 V AC/DC                                                                |                                                                                       |                                                                                           |                                                                                          |                                                                                           |                                                                                            |
| Color                             |  Green |  Red |  Orange |  Blue |  White |  Yellow |
| Reference                         | XVB7C53                                                                                 | XVB7C54                                                                               | XVB7C55                                                                                   | XVB7C56                                                                                  | XVB7C57                                                                                   | XVB7C58                                                                                    |

Light modules with flashing light signal (IP66)

|                                   |                                                                                         |                                                                                       |                                                                                           |                                                                                          |                                                                                           |                                                                                            |
|-----------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Light source energy-efficient LED | LED, included 24 V AC/DC 2 Joule flash                                                  |                                                                                       |                                                                                           |                                                                                          |                                                                                           |                                                                                            |
| Color                             |  Green |  Red |  Orange |  Blue |  White |  Yellow |
| Reference                         | XVB7C63                                                                                 | XVB7C64                                                                               | XVB7C65                                                                                   | XVB7C66                                                                                  | XVB7C67                                                                                   | XVB7C68                                                                                    |

3

Rotating and multifunction modules (IP66)

|                                            |                                                                                       |                                                                                          |                                                                           |  |  |  |
|--------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--|--|--|
| Rotating modules with energy-efficient LED | LED, included 24 V AC/DC                                                              |                                                                                          |                                                                           |  |  |  |
| Color                                      |  Red |  Orange | 8 colors (Blue, Green, Orange, Red, White, Yellow, Turquoise, and Purple) |  |  |  |
| Reference                                  | XVB7CR4                                                                               | XVB7CR5                                                                                  |                                                                           |  |  |  |

Rotating and multifunction modules (IP66)

|                                                                                                                                        |                                                                                          |                                                                                           |                                                                                         |                                                                                             |                                                                                             |                                                                                              |                                                                                                 |                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Multifunction module adjustable via dip switch: Clear lens<br>- 8 colors, 4 light patterns<br>- Steady, blinking, 2 x flash, 3 x flash | LED, included 24 V AC/DC                                                                 |                                                                                           |                                                                                         |                                                                                             |                                                                                             |                                                                                              |                                                                                                 |                                                                                              |
| Color                                                                                                                                  |  Blue |  Green |  Red |  Orange |  White |  Yellow |  Turquoise |  Purple |
| Reference                                                                                                                              | XVB7CM9                                                                                  |                                                                                           |                                                                                         |                                                                                             |                                                                                             |                                                                                              |                                                                                                 |                                                                                              |

4

Beacon lenses with steady light signal (IP66)

|                                   |                                                                                           |                                                                                         |                                                                                             |                                                                                            |                                                                                             |                                                                                              |
|-----------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Light source energy-efficient LED | LED, included 24 V AC/DC                                                                  |                                                                                         |                                                                                             |                                                                                            |                                                                                             |                                                                                              |
| Color                             |  Green |  Red |  Orange |  Blue |  White |  Yellow |
| Reference                         | XVB7L23                                                                                   | XVB7L24                                                                                 | XVB7L25                                                                                     | XVB7L26                                                                                    | XVB7L27                                                                                     | XVB7L28                                                                                      |

Beacon lenses with flashing light signal (IP66)

|                                   |                                                                                           |                                                                                         |                                                                                             |                                                                                            |                                                                                             |                                                                                              |
|-----------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Light source energy-efficient LED | LED, included 24 V AC/DC 2 Joule flash                                                    |                                                                                         |                                                                                             |                                                                                            |                                                                                             |                                                                                              |
| Color                             |  Green |  Red |  Orange |  Blue |  White |  Yellow |
| Reference                         | XVB7L63                                                                                   | XVB7L64                                                                                 | XVB7L65                                                                                     | XVB7L66                                                                                    | XVB7L67                                                                                     | XVB7L68                                                                                      |



# Harmony XVB7 signaling solutions

1



2



3



4



5



6



7



## Harmony XVB7 audible units and brackets

### Audible units

|               |                                                                                                                                                                                                                  |          |           |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------|
| Description   | <b>Sounder</b><br>- 360° omnidirectional sound<br>- IP66<br>- 78 to 102 dB (A) at 1 m<br>- Voltage: 24 V AC/DC<br>- Dip switch for tone and volume selection                                                     |          |           |
|               | 2-tone buzzer (continuous or intermittent)                                                                                                                                                                       |          |           |
| Sound pattern | 8-tone buzzer (continuous or intermittent)                                                                                                                                                                       |          |           |
| Color         | Dark gray 1                                                                                                                                                                                                      | Silver 2 | Dark gray |
| Reference     | XVB7C9S                                                                                                                                                                                                          | XVB7C9SQ | XVB7C9T   |
| Description   | <b>Self-adjusting sounder</b><br>- Sound pressure automatically adjusts based on ambient sound<br>- IP65<br>- 80 to 100 dB (A) at 1 m<br>- Voltage: 24 V AC/DC                                                   |          |           |
|               | 1-tone buzzer (intermittent)                                                                                                                                                                                     |          |           |
| Sound pattern | Dark gray                                                                                                                                                                                                        |          |           |
| Color         | Dark gray                                                                                                                                                                                                        |          |           |
| Reference     | XVB7C9SS                                                                                                                                                                                                         |          |           |
| Description   | <b>Customizable sounder/voice alarm</b><br>- Type-C USB for programming<br>- IP65 (upright position)<br>- 16 maximum tones (8 MB memory)<br>- 88 dB (A) at 1 m<br>- Supports MP3/Wav files<br>- Voltage: 24 V DC |          |           |
|               | Vocal                                                                                                                                                                                                            |          |           |
| Sound pattern | Dark gray 3                                                                                                                                                                                                      |          |           |
| Color         | Dark gray 3                                                                                                                                                                                                      |          |           |
| Reference     | XVB7C9V                                                                                                                                                                                                          |          |           |

### L brackets with integrated tube

|                         |                                                                                                                                                               |             |  |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--|
| Description             | <b>Steel L brackets comprising a Ø 25 mm/0.98 in. aluminum tube</b><br>- IP54 (on horizontal surface)<br>- IP23 (on vertical surface)<br>- Bottom cable entry |             |  |
|                         | 100/3.98                                                                                                                                                      |             |  |
| Height of tube - mm/in. | 250/9.84                                                                                                                                                      |             |  |
| Material                | Aluminum (tube) Steel (bracket)                                                                                                                               |             |  |
| Color                   | Silver 4                                                                                                                                                      |             |  |
| Reference               | XVZ100T                                                                                                                                                       | XVZ250T     |  |
| Weight - kg/lb          | 0.332/ 0.732                                                                                                                                                  | 0.381/0.840 |  |

### Brackets

|                       |                                                                                                                                                                 |                |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|                       | <b>Foldable brackets for mounting at various angles</b><br>- IP40<br>- Bottom cable entry<br>- Screws included                                                  |                |
| <b>Description</b>    |                                                                                                                                                                 |                |
| <b>Material</b>       | Plastic                                                                                                                                                         |                |
| <b>Color</b>          | Dark gray <b>5</b>                                                                                                                                              | White <b>6</b> |
| <b>Reference</b>      | <b>XVZ06</b>                                                                                                                                                    | <b>XVZ06W</b>  |
| <b>Weight - kg/lb</b> | 0.123/0.271                                                                                                                                                     | 0.123/0.271    |
| <b>Description</b>    | <b>Wall mounting bracket for use on vertical support</b><br>- Can not be combined with L brackets XVZ100T and XVZ250T<br>- IP66<br>- Gasket and screws included |                |
|                       | Plastic <b>7</b>                                                                                                                                                |                |
|                       | Dark gray                                                                                                                                                       |                |
|                       | <b>XVZ09</b>                                                                                                                                                    |                |
| <b>Weight - kg/lb</b> | 0.050/0.110                                                                                                                                                     |                |

2

2



## Harmony XVB7 mounting accessories

### Other mounting accessories

| Description    | 1/2" NPT adapter<br>- IP66<br>- Bottom cable entry | Side cable entry adapter for base mounting<br>(M16 x 1.5 cable gland)<br>- IP65<br>- Gasket and screws included | Magnetic adapter for base mounting with side cable entry<br>(M16 x 1.5 cable gland)<br>- IP65<br>- Screws included |
|----------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Material       | Steel                                              | Plastic                                                                                                         | Plastic                                                                                                            |
| Color          | Silver 1                                           | Dark gray 2                                                                                                     | Dark gray 3                                                                                                        |
| Reference      | <b>XVZ00</b>                                       | <b>XVZ07</b>                                                                                                    | <b>XVZ08</b>                                                                                                       |
| Weight - kg/lb | 0.101/0.222                                        | 0.069/0.152                                                                                                     | 0.298/0.657                                                                                                        |

### Mounting bases without tube

| Description    | Mounting bases for tube mounting<br>- IP66 (metal)<br>- IP65 (plastic)<br>- Bottom cable entry<br>- Gasket and screws included |               |               |              |
|----------------|--------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|--------------|
| Material       | Plastic 4                                                                                                                      |               |               | Metal 5      |
| Color          | Dark gray                                                                                                                      | Silver        | White         | Black        |
| Reference      | <b>XVZ01</b>                                                                                                                   | <b>XVZ01Q</b> | <b>XVZ01W</b> | <b>XVZ11</b> |
| Weight - kg/lb | 0.042/0.092                                                                                                                    | 0.042/0.092   | 0.042/0.092   | 0.117/0.257  |

### Mounting bases with tube

| Description     | Plastic mounting bases comprising a Ø 25 mm/0.98 in. tube<br>- IP66<br>- Bottom cable entry<br>- Gasket and screws included |  |               |  |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------|--|---------------|--|
| Height - mm/in. | 100/3.94                                                                                                                    |  |               |  |
| Material        | Plastic                                                                                                                     |  |               |  |
| Color           | Dark gray 6                                                                                                                 |  | Silver 7      |  |
| Reference       | <b>XVZ02</b>                                                                                                                |  | <b>XVZ02Q</b> |  |
| Weight - kg/lb  | 0.081/0.178                                                                                                                 |  | 0.081/0.178   |  |

### Tubes

| Description     | Aluminium tubes Ø 25 mm/0.98 in.<br>- IP66<br>- Bottom cable entry |                 |               |               |
|-----------------|--------------------------------------------------------------------|-----------------|---------------|---------------|
| Height - mm/in. | 100/3.94                                                           | 250/9.84        | 400/15.75     | 800/31.5      |
| Material        | Aluminum                                                           |                 |               |               |
| Color           | Silver                                                             |                 |               |               |
| Reference       | <b>XVZ100</b> 9                                                    | <b>XVZ250</b> 8 | <b>XVZ400</b> | <b>XVZ800</b> |
| Weight - kg/lb  | 0.040/0.088                                                        | 0.098/0.216     | 0.156/0.343   | 0.311/0.685   |



# Harmony XVB7 signaling solutions and Harmony XVR rotating beacons



## Harmony XVB7 mounting accessories

### Base modules for direct mounting (IP66) or tube mounting (IP65)

| Standard base modules with adapter and cover                               |                                                                                |             |                                                    |                                                                               |             |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------|----------------------------------------------------|-------------------------------------------------------------------------------|-------------|
| Description                                                                |                                                                                |             |                                                    |                                                                               |             |
| Voltage Connection                                                         | 24 V AC/DC<br>Push-in terminals                                                |             | 24 V DC<br>M12 connector<br>(A-coded, 15 cm cable) | 100 - 240 V AC<br>120 V DC<br>Push-in terminals                               |             |
| Color                                                                      | Dark gray 1                                                                    | Silver      | Dark gray                                          | Dark gray                                                                     | Silver 2    |
| Reference                                                                  | XVB7C21B                                                                       | XVB7C21BQ   | XVB7C61                                            | XVB7C21M                                                                      | XVB7C21MQ   |
| Weight - kg/lb                                                             | 0.164/0.361                                                                    | 0.165/0.363 | 0.289/0.637                                        | 0.280/0.617                                                                   | 0.282/0.621 |
| Connected base modules with adapter, cover, and wiring pull-out protection |                                                                                |             |                                                    |                                                                               |             |
| Description                                                                |                                                                                |             |                                                    |                                                                               |             |
| Voltage Connection                                                         | 5 V DC<br>Modbus protocol<br>USB 2.0 Type C connection<br>(cable not included) |             | 24 V DC<br>M12 connector<br>(A-coded, 15 cm cable) | 24 V DC<br>IO-Link protocol (V1.1)<br>M12 connector<br>(A-coded, 15 cm cable) |             |
| Color                                                                      | Dark gray                                                                      |             |                                                    | Dark gray 3                                                                   |             |
| Reference                                                                  | XVB7C51                                                                        |             |                                                    | XVB7C31                                                                       |             |
| Weight - kg/lb                                                             | 0.180/0.397                                                                    |             |                                                    | 0.227/0.500                                                                   |             |

## Harmony XVR3 pre-cabled motorless rotating/flashing beacons



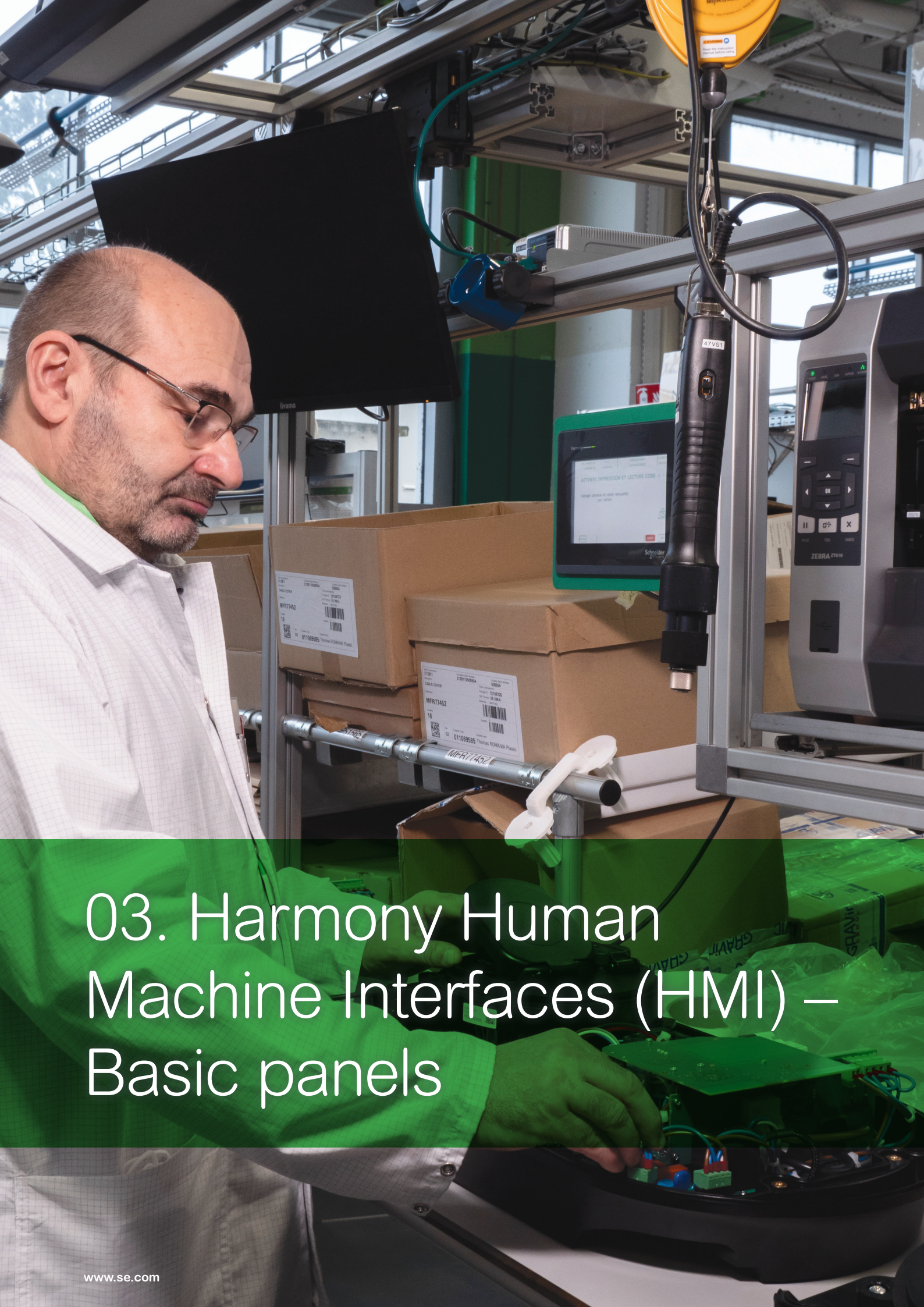
### Beacon lights with buzzer, multi-functional beacon lights 4

|               |             |          |          |          |
|---------------|-------------|----------|----------|----------|
| LED unit type | Beacon      |          |          |          |
| Color         | Green       | Red      | Orange   | Blue     |
| Voltage       | 12-24 VDC   |          |          |          |
| Reference     | XVR3B03S    | XVR3B04S | XVR3B05S | XVR3B06S |
| Voltage       | 100-230 VAC |          |          |          |
| Reference     | XVR3M03S    | XVR3M04S | XVR3M05S | XVR3M06S |

### Beacon lights without buzzer

|               |             |                                                                                           |                                                                                         |                                                                                            |                                                                                          |
|---------------|-------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Color         |             |  Green |  Red |  Orange |  Blue |
| LED unit type |             | Beacon                                                                                    |                                                                                         |                                                                                            |                                                                                          |
| Voltage       | 12-24 VDC   | XVR3B03                                                                                   | XVR3B04                                                                                 | XVR3B05                                                                                    | XVR3B06                                                                                  |
|               | 48 VDC      | XVR3E03                                                                                   | XVR3E04                                                                                 | XVR3E05                                                                                    | XVR3E06                                                                                  |
|               | 100-230 VAC | XVR3M03                                                                                   | XVR3M04                                                                                 | XVR3M05                                                                                    | XVR3M06                                                                                  |





# 03. Harmony Human Machine Interfaces (HMI) – Basic panels



# Harmony STO7, ST6 and STW6 models



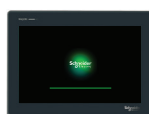
## Harmony STO7 touch panels - most compact panels

|                            |                    |                                                                      |                             |            |
|----------------------------|--------------------|----------------------------------------------------------------------|-----------------------------|------------|
| Screen size                |                    | 4.3"                                                                 |                             |            |
| Screen resolution (pixels) |                    | 480 x 272                                                            |                             |            |
| Touch screen or keypad     |                    | Touch screen                                                         |                             |            |
| Software                   |                    | EcoStruxure Operator Terminal Expert                                 |                             |            |
| Memory capacity            | Application memory | 26 MB                                                                |                             |            |
|                            | Backup memory      | 128 KB                                                               |                             |            |
|                            | Expansion memory   | No                                                                   |                             |            |
| Communication              | Ethernet port      | No                                                                   |                             | 1 LAN port |
|                            | Serial line        | RS-232C (9-way terminal block)                                       | RS-232C/RS-485 (RJ45 8-way) | No         |
|                            | USB connection     | 1 type A host connector + 1 mini-B connector                         |                             |            |
| Operating temperature      |                    | 0...50 °C                                                            |                             |            |
| Industrial certifications  |                    | CE, RCM, EAC, KC, UL, cUL, IECEx / ATEX Zone 2/22, RoHS, WEEE, REACH |                             |            |
| Cut-out (mm) (1)           |                    | 112.5 x 77.5                                                         |                             |            |
| Dimensions (mm)            |                    | 124.9 x 90.4 x 38.8                                                  |                             |            |
| Reference                  |                    | HMISTO705                                                            | HMISTO715                   | HMISTO735  |



## Harmony ST6 - New level of aesthetics with visually powerful EcoStruxure Operator Terminal Expert software

|                            |                    |                                                     |                |                |                |                |
|----------------------------|--------------------|-----------------------------------------------------|----------------|----------------|----------------|----------------|
| Screen size                |                    | 4.3"                                                | 7"             | 10.1"          | 12.1"          | 15.6"          |
| Screen resolution (pixels) |                    | 480 x 272                                           | 800 x 480      | 1,024 x 600    | 1,280 x 800    | 1,366 x 768    |
| Touch screen or keypad     |                    | Touch screen                                        |                |                |                |                |
| Software                   |                    | EcoStruxure Operator Terminal Expert                |                |                |                |                |
| Memory capacity            | Application memory | 128 MB                                              |                |                |                |                |
|                            | Backup memory      | NVRAM 512 KB                                        |                |                |                |                |
|                            | Expansion memory   | No                                                  |                |                |                |                |
| Communication              | Ethernet port      | IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX x2       |                |                |                |                |
|                            | Serial line        | RS-232C/485 (COM1) RS-232C (COM1) and RS-485 (COM2) |                |                |                |                |
|                            | USB connection     | USB 2.0 (Type A) + USB 2.0 (micro-B)                |                |                |                |                |
| Operating temperature      |                    | 0...50 °C                                           |                |                |                |                |
| Industrial certifications  |                    | CE, UL, cUL, RCM, KC, EAC, RoHS, WEEE, REACH        |                |                |                |                |
| Cut-out (mm)               |                    | 118.5 x 92.5                                        | 190 x 135      | 255 x 185      | 295 x 217      | 394 x 250      |
| Dimensions (mm)            |                    | 134.5 x 108.5 x 43                                  | 208 x 153 x 45 | 273 x 203 x 47 | 313 x 235 x 50 | 412 x 268 x 50 |
| Reference                  |                    | HMIST6200                                           | HMIST6400      | HMIST6500      | HMIST6600      | HMIST6700      |

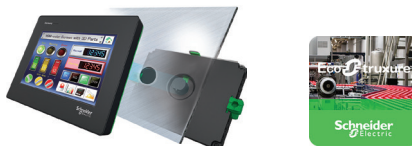


## Harmony STW6 - New level of aesthetics and ready-to-use with a pre-installed browser

|                            |                  |                                               |                |                |                |                |
|----------------------------|------------------|-----------------------------------------------|----------------|----------------|----------------|----------------|
| Screen size                |                  | 4.3"                                          | 7"             | 10.1"          | 12.1"          | 15.6"          |
| Screen resolution (pixels) |                  | 480 x 272                                     | 800 x 480      | 1,024 x 600    | 1,280 x 800    | 1,366 x 768    |
| Touch screen or keypad     |                  | Touch screen                                  |                |                |                |                |
| Software                   |                  | Linux Browser HTML5                           |                |                |                |                |
| Memory capacity            | System memory    | 512 MB                                        |                |                |                |                |
|                            | Backup memory    | NVRAM 128 KB                                  |                |                |                |                |
|                            | Expansion memory | No                                            |                |                |                |                |
| Communication              | Ethernet port    | IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX x2 |                |                |                |                |
|                            | Serial line      | No                                            |                |                |                |                |
|                            | USB connection   | USB 2.0 (Type A) + USB 2.0 (micro-B)          |                |                |                |                |
| Operating temperature      |                  | 0...50 °C                                     |                |                |                |                |
| Industrial certifications  |                  | CE, UL, cUL, RCM, KC, EAC, RoHS, WEEE, REACH  |                |                |                |                |
| Cut-out (mm)               |                  | 118.5 x 92.5                                  | 190 x 135      | 255 x 185      | 295 x 217      | 394 x 250      |
| Dimensions (mm)            |                  | 134.5 x 108.5 x 43                            | 208 x 153 x 45 | 273 x 203 x 47 | 313 x 235 x 50 | 412 x 268 x 50 |
| Reference                  |                  | HMISTW6200                                    | HMISTW6400     | HMISTW6500     | HMISTW6600     | HMISTW6700     |

(1) An accessory adapter is available to fit in monochrome STO cut-out.

# Harmony STM6 modular, faceless and Edge Box HMI models



## Harmony STM6 - New level of aesthetics with unique pushbutton 22 mm mounting system

|                            |                    |                                                                      |                      |                        |
|----------------------------|--------------------|----------------------------------------------------------------------|----------------------|------------------------|
| Screen size                |                    | 4.3"                                                                 | 7"                   | —                      |
| Screen resolution (pixels) |                    | 480 x 272                                                            | 800 x 480            | —                      |
| Touch screen or keypad     |                    | Touch screen                                                         |                      | —                      |
| Software                   |                    | EcoStruxure Operator Terminal Expert                                 |                      |                        |
| Memory capacity            | Application memory | 128 MB                                                               |                      |                        |
|                            | Backup memory      | NVRAM 512 KB                                                         |                      |                        |
|                            | Expansion memory   | No                                                                   |                      |                        |
| Communication              | Ethernet port      | IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX                           |                      |                        |
|                            | Serial line        | RS-232C/485 (COM1)x2                                                 |                      |                        |
|                            | USB connection     | USB 2.0 (Type A) + USB 2.0 (micro-B)                                 |                      |                        |
| Operating temperature      |                    | 0...50 °C                                                            |                      |                        |
| Industrial certifications  |                    | CE, UL, cUL, RCM, KC, EAC, UL Class1 Div2, Marine, RoHS, WEEE, REACH |                      |                        |
| Cut-out (mm)               |                    | hole 22.5                                                            | hole 22.5            | DIN Rail mounting      |
| Dimensions (mm)            |                    | 145.6 x 108.2 x 53.9                                                 | 201.2 x 137.2 x 57.7 | 150.49 x 109.97 x 63.3 |
| Reference                  |                    | HMISTM6200                                                           | HMISTM6400           | HMISTM6BOX (1)         |



## Harmony Edge Box HMI - affordable box to get ready for Cloud service thanks to the power of EcoStruxure Machine SCADA Expert

|                           |                    |                                                                      |
|---------------------------|--------------------|----------------------------------------------------------------------|
| Software                  |                    | EcoStruxure Machine SCADA Expert                                     |
| Memory                    | Device memory      | 1GB                                                                  |
|                           | Application memory | 220 MB                                                               |
| Communication             | Ethernet port      | 2 x Ethernet TCP/IP (10BASE-T/100BASE-TX)                            |
|                           | Serial line        | RS-232C/485 (COM 1)                                                  |
|                           | USB connection     | 1x USB 2.0 (Type A), 1 x USB 2.0 Micro-B                             |
| Operating temperature     |                    | 0...60°C                                                             |
| Industrial certifications |                    | CE, UL, cUL, RCM, KC, EAC, UL Class1 Div2, Marine, RoHS, WEEE, REACH |
| Mounting                  |                    | DIN Rail mounting                                                    |
| Dimensions (mm)           |                    | 150.49 x 109.97 x 63.3                                               |
| Reference                 |                    | HMISTM6BOXIOT (2)                                                    |

(1) Web Viewer run time license pre-activated.

(2) Runtime 500 tags EcoStruxure Machine SCADA Expert pre-activated + 1 Mobile Access Client activated + EcoStruxure Secure Connect pre-installed.



# Programming software



## EcoStruxure Operator Terminal Expert, programming software for Harmony STO7, ST6 and STM6 basic panels

|                                                      |                                         |                           |
|------------------------------------------------------|-----------------------------------------|---------------------------|
| Compatibility                                        | Harmony STO7, ST6 and STM6 basic panels |                           |
| Type of EcoStruxure Operator Terminal Expert license | Professional License (1)                | Basic Edition License (2) |
| Number of stations                                   | 1                                       |                           |
| License format                                       | Digital                                 | Digital                   |
| License duration                                     | Unlimited                               |                           |
| Reference                                            | HMIPELCZSPAZZ                           | HMI EELCZLSPAZZ           |

## Web Viewer run time licenses - EcoStruxure Operator Terminal Expert

### Monitor and operate the HMI screen remotely with mirroring function

|                           |                                                                             |            |            |
|---------------------------|-----------------------------------------------------------------------------|------------|------------|
| Compatibility             | Harmony ST6 and STM6 panels powered by EcoStruxure Operator Terminal Expert |            |            |
| License type              | Single                                                                      | Team       | Entity     |
| Number of Operator Panels | 1                                                                           | 10         | 100        |
| Licenses format           | Digital                                                                     |            |            |
| License Duration          | Unlimited (not transferable between HMI operator panels)                    |            |            |
| Reference                 | HMIWRT001A                                                                  | HMIWRT010A | HMIWRT100A |



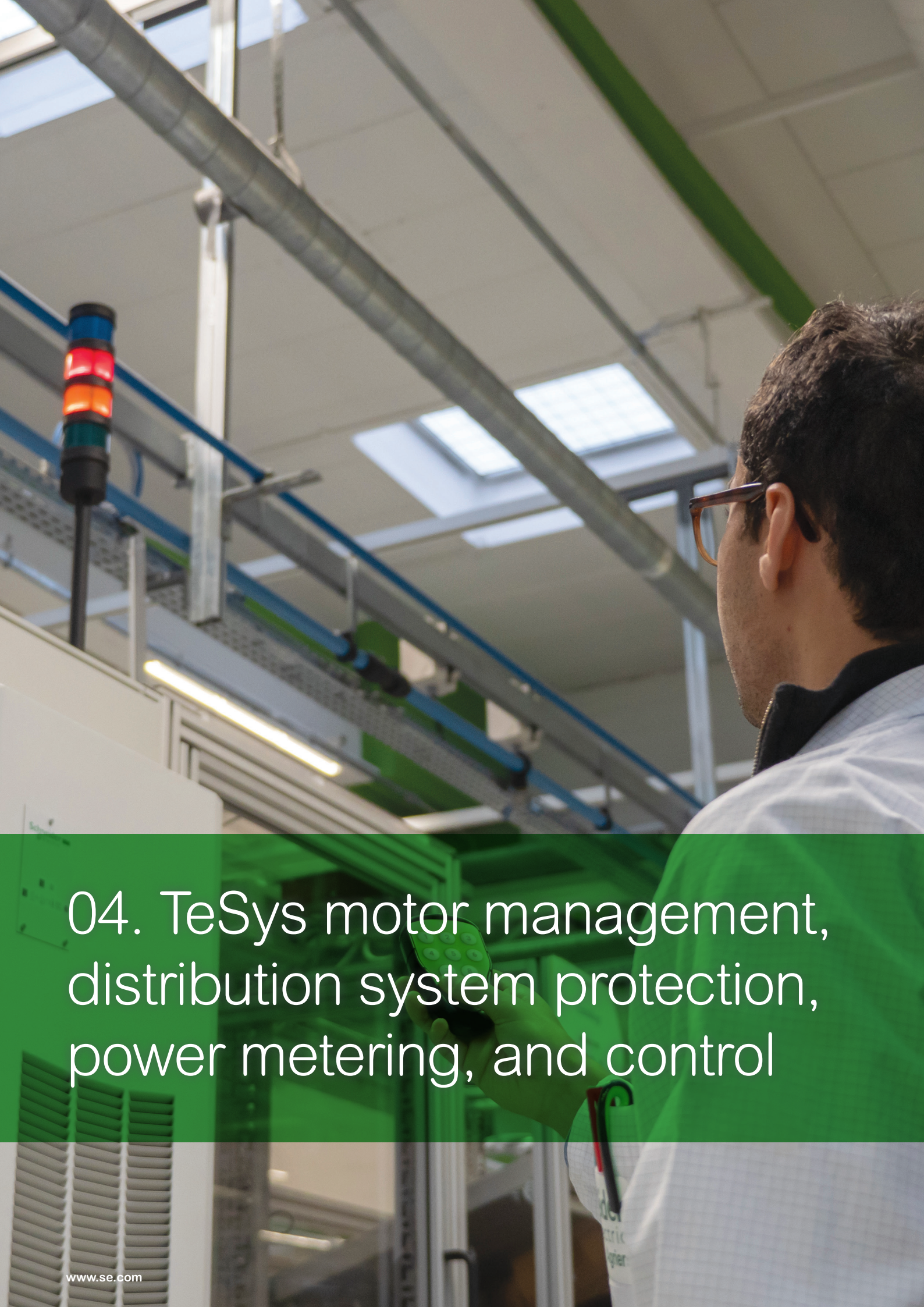
## EcoStruxure Machine SCADA Expert, programming software for Edge Box HMI

|                    |                                    |
|--------------------|------------------------------------|
| Compatibility      | Harmony Edge Box HMI HMISTM6BOXIOT |
| Type license       | Buildtime 500 tags                 |
| Number of stations | 1                                  |
| License format     | Digital                            |
| License Duration   | Unlimited                          |
| Reference          | HMIEMSEBT500A                      |

(1) Supports Web Server API in ST6/STO7 and OPC UA in ST6.

(2) Does not support Web Server API or OPC UA.





## 04. TeSys motor management, distribution system protection, power metering, and control

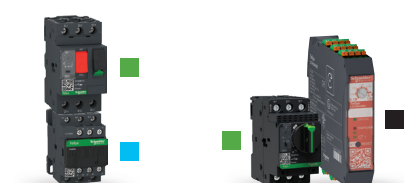


## Build your motor starter!

|                                                                                                              | Contactor                           | Thermal-magnetic circuit breaker    | Magnetic circuit breaker            | Switch-disconnector fuse            | Thermal overload relay              | Ultra compact motor starter         |
|--------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Range name                                                                                                   | TeSys K, TeSys Deca & Giga          | TeSys GV.ME/P                       | TeSys GV.L                          | TeSys GS                            | TeSys K, TeSys Deca & Giga          | TeSys H                             |
| Product reference prefix                                                                                     | LC                                  | GV                                  | GV.L                                | GS                                  | LR                                  | LZ                                  |
| Motor starter structure - 4 functions to be covered:                                                         |                                     |                                     |                                     |                                     |                                     |                                     |
|  Disconnection and breaking | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  Short-circuit protection   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
|  Overload protection        | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
|  Control                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Voltage coil code

|       | ■ ■ | ■ ■ | ■ ■        |
|-------|-----|-----|------------|
|       | AC  | DC  | DC < 2.4 V |
| 24 V  | B7  | BD  | BL         |
| 48 V  | E7  | ED  | EL         |
| 110 V | F7  | FD  |            |
| 220 V | M7  |     |            |
| 230 V | P7  |     |            |



|                                         |                |              |              |              |              |              |              |
|-----------------------------------------|----------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Motor power AC3 380/400 V               | 0.37...0.55 kW | 0.75 kW      | 1.1...1.5 kW | 2.2 kW       | 3 kW         | 4 kW         | 5.5 kW       |
| TeSys K mini contactor (1)              |                |              |              |              |              |              |              |
| Ie max. AC3 (Ue ≤ 440 V)                | 6 A            | 6 A          | 6 A          | 6 A          | 9 A          | 9 A          | 12 A         |
| Ie AC1 (T < 60°C)                       | 20 A           | 20 A         | 20 A         | 20 A         | 20 A         | 20 A         | 20 A         |
| Contactor with NO auxiliary contact (2) | LC1K0610 ■ ■   | LC1K0610 ■ ■ | LC1K0610 ■ ■ | LC1K0610 ■ ■ | LC1K0910 ■ ■ | LC1K0910 ■ ■ | LC1K1210 ■ ■ |
| Contactor with NC auxiliary contact (2) | LC1K0601 ■ ■   | LC1K0601 ■ ■ | LC1K0601 ■ ■ | LC1K0601 ■ ■ | LC1K0901 ■ ■ | LC1K0901 ■ ■ | LC1K1201 ■ ■ |
| Breaking capacity Icu/400 V             | 100 KA         | 100 KA       | 100 KA       | 100 KA       | 100 KA       | 100 KA       | 100 KA       |
| Thermal-magnetic circuit breaker        | GV2P06         | GV2P07       | GV2P08       | GV2P10       | GV2P14       | GV2P14       | GV2P16       |
| Rotary handle                           |                |              |              |              |              |              |              |
| Breaking capacity Icu/400 V             | 100 KA         | 100 KA       | 100 KA       | 100 KA       | 100 KA       | 100 KA       | 15 KA        |
| Thermal-magnetic circuit breaker        | GV2ME06        | GV2ME07      | GV2ME08      | GV2ME10      | GV2ME14      | GV2ME14      | GV2ME16      |
| Pushbutton control                      |                |              |              |              |              |              |              |
| Breaking capacity Icu/400 V             | 100 KA         | 100 KA       | 100 KA       | 100 KA       | 100 KA       | 100 KA       | 15 KA        |
| Magnetic circuit breaker                | GV2LE06        | GV2LE07      | GV2LE08      | GV2LE10      | GV2LE14      | GV2LE14      | GV2LE16      |
| Tumbler control                         |                |              |              |              |              |              |              |
| Breaking capacity Icu/400 V             | 100 KA         | 100 KA       | 100 KA       | 100 KA       | 100 KA       | 100 KA       | 100 KA       |
| Magnetic circuit breaker                | GV2L06         | GV2L07       | GV2L08       | GV2L10       | GV2L14       | GV2L14       | GV2L16       |
| Rotary handle                           |                |              |              |              |              |              |              |
| Switch-disconnector fuse                | GS1DD          | GS1DD        | GS1DD        | GS1DD        | GS1DD        | GS1DD        | GS1DD        |
| Fuse type                               | 10 x 38        | 10 x 38      | 10 x 38      | 10 x 38      | 10 x 38      | 10 x 38      | 10 x 38      |
| Operational current Ie/400 V            | 2 A            | 4 A          | 4 A          | 6 A          | 8 A          | 12 A         | 16 A         |
| Thermal overload relay cI10A            | LR2K0306       | LR2K0308     | LR2K0310     | LR2K0312     | LR2K0314     | LR2K0316     | LR2K0321     |
| TeSys H ultra-compact motor starter     |                |              |              |              |              |              |              |
| Breaking capacity Icu/400 V             | > 100 KA       | > 100 KA     | > 100 KA     | > 100 KA     | > 100 KA     | > 100 KA     | > 100 KA     |
| Magnetic circuit breaker                | GV2L06         | GV2L07       | GV2L08       | GV2L10       | GV2L14       | GV2L14       | GV2L16       |
| Rotary handle                           |                |              |              |              |              |              |              |
| Breaking capacity Icu/400 V             | > 100 KA       | > 100 KA     | > 100 KA     | > 100 KA     | > 100 KA     | > 100 KA     | > 100 KA     |
| Magnetic circuit breaker                | GV2LE06        | GV2LE07      | GV2LE08      | GV2LE10      | GV2LE14      | GV2LE14      | GV2LE16      |
| Tumbler control                         |                |              |              |              |              |              |              |
| Ultra-compact starter                   |                |              |              |              |              |              |              |
| Standard version                        | LZ1H2X...      | LZ1H2X...    | LZ1H6X...    | LZ1H6X...    | LZ1H6X...    | LZ1H6X...    | LZ1H6X...    |
| "Safety" version                        | LZ7H2X...      | LZ7H2X...    | LZ7H6X...    | LZ7H6X...    | LZ7H6X...    | LZ7H6X...    | LZ7H6X...    |

(1) Naming rule for the TeSys K range: LC1K... for AC; LP1K... for DC; LP4K... for DC < 2.4 V. For more details, please refer to the TeSys catalog.

(2) The end of the product references must be replaced with a coil voltage code as indicated above (eg.: "P7" for 230 VAC, "BD" for 24 VDC). For more details, please refer to the TeSys catalog.

# TeSys Universal

## Build your motor starter!

|                                                      | Contactor                  | Thermal-magnetic circuit breaker | Magnetic circuit breaker | Switch-disconnector fuse | Thermal overload relay     | Compact starter controller |
|------------------------------------------------------|----------------------------|----------------------------------|--------------------------|--------------------------|----------------------------|----------------------------|
| Range name                                           | TeSys K, TeSys Deca & Giga | TeSys GV.ME/P                    | TeSys GV.L               | TeSys GS                 | TeSys K, TeSys Deca & Giga | TeSys Ultra                |
| Product reference prefix                             | LC                         | GV                               | GV.L                     | GS                       | LR                         | LU                         |
| Motor starter structure - 4 functions to be covered: |                            |                                  |                          |                          |                            |                            |
|                                                      | Disconnection and breaking |                                  |                          |                          |                            |                            |
|                                                      | Short-circuit protection   |                                  |                          |                          |                            |                            |
|                                                      | Overload protection        |                                  |                          |                          |                            |                            |
|                                                      | Control                    |                                  |                          |                          |                            |                            |



### Voltage coil code

|       | ■ ■ | ■ ■ | ■ ■        | ■ ■   | ★ ★   |
|-------|-----|-----|------------|-------|-------|
|       | AC  | DC  | DC < 2.4 W | AC/DC | AC/DC |
| 24 V  | B7  | BD  | BL         | BNE   | B/BL  |
| 48 V  | E7  | ED  | EL         | BNE   | ES    |
| 110 V | F7  | FD  |            | KUE   | FU    |
| 220 V | M7  |     |            | KUE   | FU    |
| 230 V | P7  |     |            | KUE   | FU    |

4

| Motor power AC3 380/400 V                                                                                               | 0.37...0.55 kW | 0.75 kW    | 1.1...1.5 kW | 2.2 kW     | 3 kW       | 4 kW       |
|-------------------------------------------------------------------------------------------------------------------------|----------------|------------|--------------|------------|------------|------------|
| TeSys Deca Contactors                                                                                                   |                |            |              |            |            |            |
| Ie max. AC3 (Ue ≤ 440 V)                                                                                                | 9 A            | 9 A        | 9 A          | 9 A        | 9 A        | 9 A        |
| Ie AC1 (T < 60°C)                                                                                                       | 25 A           | 25 A       | 25 A         | 25 A       | 25 A       | 25 A       |
| Contactor (1)                                                                                                           | LC1D09 ■ ■     | LC1D09 ■ ■ | LC1D09 ■ ■   | LC1D09 ■ ■ | LC1D09 ■ ■ | LC1D09 ■ ■ |
| Breaking capacity Icu/400 V                                                                                             | 100 KA         | 100 KA     | 100 KA       | 100 KA     | 100 KA     | 100 KA     |
| Thermal-magnetic circuit breaker                                                                                        | GV2P06         | GV2P07     | GV2P08       | GV2P10     | GV2P14     | GV2P14     |
| Rotary handle                                                                                                           |                |            |              |            |            |            |
| Breaking capacity Icu/400 V                                                                                             | 100 KA         | 100 KA     | 100 KA       | 100 KA     | 100 KA     | 100 KA     |
| Thermal-magnetic circuit breaker                                                                                        | GV2ME06        | GV2ME07    | GV2ME08      | GV2ME10    | GV2ME14    | GV2ME14    |
| Pushbutton control                                                                                                      |                |            |              |            |            |            |
| Breaking capacity Icu/400 V                                                                                             | 100 KA         | 100 KA     | 100 KA       | 100 KA     | 100 KA     | 100 KA     |
| Magnetic circuit breaker                                                                                                | GV2LE06        | GV2LE07    | GV2LE08      | GV2LE10    | GV2LE14    | GV2LE14    |
| Tumbler control                                                                                                         |                |            |              |            |            |            |
| Breaking capacity Icu/400 V                                                                                             | 100 KA         | 100 KA     | 100 KA       | 100 KA     | 100 KA     | 100 KA     |
| Magnetic circuit breaker                                                                                                | GV2L06         | GV2L07     | GV2L08       | GV2L10     | GV2L14     | GV2L14     |
| Rotary handle                                                                                                           |                |            |              |            |            |            |
| Switch-disconnector fuse                                                                                                | GS1DD          | GS1DD      | GS1DD        | GS1DD      | GS1DD      | GS1DD      |
| Fuse type                                                                                                               | 10 x 38        | 10 x 38    | 10 x 38      | 10 x 38    | 10 x 38    | 10 x 38    |
| Operational current Ie/400 V                                                                                            | 2 A            | 4 A        | 4 A          | 6 A        | 8 A        | 12 A       |
| Thermal overload relay ci10A                                                                                            | LRD06          | LRD07      | LRD08        | LRD10      | LRD12      | LRD14      |
| Thermal overload relay ci20                                                                                             | –              | –          | LRD1508      | LRD1510    | LRD1512    | LRD1514    |
| TeSys Ultra Compact Motor Starter                                                                                       |                |            |              |            |            |            |
| Breaking capacity Icu/400 V                                                                                             | 50 kA          | 50 kA      | 50 kA        | 50 kA      | 50 kA      | 50 kA      |
| Power base                                                                                                              | LUB12          | LUB12      | LUB12        | LUB12      | LUB12      | LUB12      |
| Control unit                                                                                                            | LUCA1X ★ ★     | LUCA05 ★ ★ | LUCA05 ★ ★   | LUCA12 ★ ★ | LUCA12 ★ ★ | LUCA12 ★ ★ |
| LAD5C... and LAD9AP3... modules provide pre-wired solutions for GV + LC1D control circuits. Use LUFC00 for TeSys Ultra. |                |            |              |            |            |            |

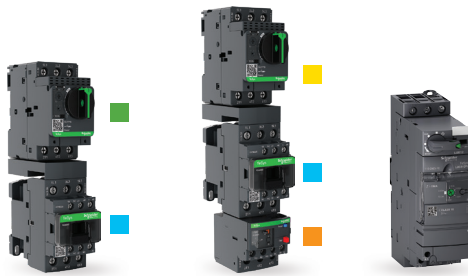
(1) The end of the product references must be replaced with a coil voltage code as indicated above (eg.: "P7" for 230 VAC, "BD" for 24 VDC). For more details, please refer to the TeSys catalog.



# TeSys Universal

## Build your motor starter!

|                                                      | Contactor                  | Thermal-magnetic circuit breaker | Magnetic circuit breaker | Switch-disconnector fuse | Thermal overload relay     | Compact starter controller |
|------------------------------------------------------|----------------------------|----------------------------------|--------------------------|--------------------------|----------------------------|----------------------------|
| Range name                                           | TeSys K, TeSys Deca & Giga | TeSys GV.ME/P                    | TeSys GV.L               | TeSys GS                 | TeSys K, TeSys Deca & Giga | TeSys Ultra                |
| Product reference prefix                             | LC                         | GV                               | GV.L                     | GS                       | LR                         | LU                         |
| Motor starter structure - 4 functions to be covered: |                            |                                  |                          |                          |                            |                            |
|                                                      | Disconnection and breaking |                                  |                          |                          |                            |                            |
|                                                      | Short-circuit protection   |                                  |                          |                          |                            |                            |
|                                                      | Overload protection        |                                  |                          |                          |                            |                            |
|                                                      | Control                    |                                  |                          |                          |                            |                            |



### Voltage coil code

|       | ■ ■ | ■ ■ | ■ ■        | ■ ■   | ★ ★   |
|-------|-----|-----|------------|-------|-------|
|       | AC  | DC  | DC < 2.4 W | AC/DC | AC/DC |
| 24 V  | B7  | BD  | BL         | BNE   | B/BL  |
| 48 V  | E7  | ED  | EL         | BNE   | ES    |
| 110 V | F7  | FD  |            | KUE   | FU    |
| 220 V | M7  |     |            | KUE   | FU    |
| 230 V | P7  |     |            | KUE   | FU    |

4

| Motor power AC3 380/400 V                                                                                             | 5.5 kW     | 7.5 kW     | 9 kW       | 11 kW       | 15 kW       | 18.5 kW    |
|-----------------------------------------------------------------------------------------------------------------------|------------|------------|------------|-------------|-------------|------------|
| TeSys Deca Contactors                                                                                                 |            |            |            |             |             |            |
| I <sub>e</sub> max. AC3 (U <sub>e</sub> ≤ 440 V)                                                                      | 12 A       | 18 A       | 25 A       | 25 A        | 32 A        |            |
| I <sub>e</sub> AC1 (T < 60°C)                                                                                         | 25 A       | 32 A       | 40 A       | 40 A        | 50 A        |            |
| Contactor (1)                                                                                                         | LC1D12 ■ ■ | LC1D18 ■ ■ | LC1D25 ■ ■ | LC1D25 ■ ■  | LC1D32 ■ ■  |            |
| Breaking capacity I <sub>cu</sub> /400 V                                                                              | 100 KA     | 100 KA     | 100 KA     | 100 KA      | 100 KA      |            |
| Thermal-magnetic circuit breaker                                                                                      | GV2P16     | GV3P18     | GV3P25     | GV3P25      | GV3P32      |            |
| Rotary handle                                                                                                         |            |            |            |             |             |            |
| Breaking capacity I <sub>cu</sub> /400 V                                                                              | 15 KA      | 15 KA      | 15 KA      | 15 KA       | 15 KA       |            |
| Thermal-magnetic circuit breaker                                                                                      | GV2ME16    | GV2ME20    | GV2ME21    | GV2ME22     | GV2ME32     |            |
| Pushbutton control                                                                                                    |            |            |            |             |             |            |
| Breaking capacity I <sub>cu</sub> /400 V                                                                              | 15 KA      | 15 KA      | 15 KA      | 15 KA       | 15 KA       |            |
| Magnetic circuit breaker                                                                                              | GV2LE16    | GV2LE20    | GV2LE22    | GV2LE22     | GV2LE32     |            |
| Tumbler control                                                                                                       |            |            |            |             |             |            |
| Breaking capacity I <sub>cu</sub> /400 V                                                                              | 100 KA     | 100 KA     | 100 KA     | 100 KA      | 100 KA      |            |
| Magnetic circuit breaker                                                                                              | GV2L16     | GV2L20     | GV2L22     | GV3L25      | GV3L32      |            |
| Rotary handle                                                                                                         |            |            |            |             |             |            |
| Switch-disconnector fuse                                                                                              | GS1DD      | GS1DD      | GS1DD      | GS1DD       | GS1DD       |            |
| Fuse type                                                                                                             | 10 x 38    | 10 x 38    | 10 x 38    | 10 x 38     | 10 x 38     |            |
| Operational current I <sub>e</sub> /400 V                                                                             | 16 A       | 16 A       | 25 A       | 25 A        | 32 A        |            |
| Thermal overload relay cI10A                                                                                          | LRD16      | LRD21      | LRD22      | LRD22       | LRD32       |            |
|                                                                                                                       | –          | –          | –          | LRD325 (2)  | LRD332 (2)  |            |
| Thermal overload relay cI20                                                                                           | LRD1516    | LRD1521    | LRD1522    | LRD1522     | LRD1532     |            |
|                                                                                                                       | –          | –          | –          | LRD325L (2) | LRD332L (2) |            |
| TeSys Ultra Compact Motor Starter                                                                                     |            |            |            |             |             |            |
| Breaking capacity I <sub>cu</sub> /400 V                                                                              | 50 kA      | 50 kA      | 50 kA      | 50 kA       | 50 kA       | 25 kA      |
| Power base                                                                                                            | LUB12      | LUB32      | LUB32      | LUB32       | LUB32       | LUB38      |
| Control unit                                                                                                          | LUCA12 ★ ★ | LUCA18 ★ ★ | LUCA32 ★ ★ | LUCA32 ★ ★  | LUCA32 ★ ★  | LUCA38 ★ ★ |
| LAD5C.. and LAD9AP3.. modules provide pre-wired solutions for GV + LC1D control circuits. Use LUFC00 for TeSys Ultra. |            |            |            |             |             |            |

(1) The end of the product references must be replaced with a coil voltage code as indicated above (eg.: "P7" for 230 VAC, "BD" for 24 VDC). For more details, please refer to the TeSys catalog.  
(2) BTR screws (EverLink).

## Build your motor starter!

|                                                                                   | Contactor                  | Thermal-magnetic circuit breaker                                                  | Magnetic circuit breaker                                                          | Switch-disconnector fuse                                                            | Thermal overload relay                                                              |
|-----------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Range name                                                                        | TeSys D, TeSys Deca & Giga | TeSys GV                                                                          | TeSys GV.L                                                                        | TeSys GS                                                                            | TeSys D, TeSys Deca & Giga                                                          |
| Product reference prefix                                                          | LC                         | GV                                                                                | GV.L                                                                              | GS                                                                                  | LR                                                                                  |
| Motor starter structure - 4 functions to be covered:                              |                            |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|  | Disconnection and breaking |  |  |  |  |
|  | Short-circuit protection   |  |  |  |  |
|  | Overload protection        |  |  |  |  |
|  | Control                    |  |  |  |  |



### Voltage coil code

|       | ■ ■ | ■ ■ | ■ ■        | ■ ■   | ■ ■        | ● ● | ● ● |
|-------|-----|-----|------------|-------|------------|-----|-----|
|       | AC  | DC  | DC < 2.4 W | AC/DC | DC < 0.5 W | AC  | DC  |
| 24 V  | B7  | BD  | BL         | BNE   | BBE        | B7  | BD  |
| 48 V  | E7  | ED  | EL         | BNE   |            | E7  | ED  |
| 110 V | F7  | FD  |            | KUE   |            | F7  | FD  |
| 220 V | M7  |     |            | KUE   |            | M7  |     |
| 230 V | P7  |     |            | KUE   |            | P7  |     |

4

| Motor power AC3 380/400 V                        | 18.5 kW     | 22 kW       | 30 kW       | 37 kW       | 45 kW      | 55 kW        | 75 kW                     |
|--------------------------------------------------|-------------|-------------|-------------|-------------|------------|--------------|---------------------------|
| TeSys Deca Contactors                            |             |             |             |             |            |              |                           |
| I <sub>e</sub> max. AC3 (U <sub>e</sub> ≤ 440 V) | 40 A        | 50 A        | 65 A        | 80 A        | 95 A       | 115 A        | 150 A                     |
| I <sub>e</sub> AC1 (T < 60°C)                    | 60 A        | 80 A        | 80 A        | 125 A       | 125 A      | 200 A        | 200 A                     |
| Contactor (1)                                    | LC1D40A ■ ■ | LC1D50A ■ ■ | LC1D65A ■ ■ | LC1D80A ■ ■ | LC1D95 ● ● | LC1D115 ● ●  | LC1D150 ● ● / LC1F150 ● ● |
| Breaking capacity I <sub>cu</sub> /400 V         | 50 KA       | 50 KA       | 50 KA       | 100 KA      | 100 KA     | 100 KA       | 70 KA                     |
| Thermal-magnetic circuit breaker                 | GV3P40      | GV3P50      | GV3P65      | GV4P80      | GV4P115    | GV4P115      | GV5P150H                  |
| Rotary handle                                    |             |             |             |             |            |              |                           |
| Breaking capacity I <sub>cu</sub> /400 V         | 50 KA       | 50 KA       | 50 KA       | 50 KA       | 100 KA     | 100 KA       | 36 KA                     |
| Thermal-magnetic circuit breaker                 | GV3P40      | GV3P50      | GV3P65      | GV3P73      | GV4P115    | GV4P115      | GV5P150F                  |
| Rotary handle                                    |             |             |             |             |            |              |                           |
| Breaking capacity I <sub>cu</sub> /400 V         | 50 KA       | 50 KA       | 50 KA       | 100 KA      | 100 KA     | 100 KA       | 70 KA                     |
| Magnetic circuit breaker                         | GV3L40      | GV3L50      | GV3L65      | GV4L80      | GV4L115    | GV4L115      | NSX160HMA                 |
| Rotary handle                                    |             |             |             |             |            |              |                           |
| Breaking capacity I <sub>cu</sub> /400 V         | 50 KA       | 50 KA       | 50 KA       | 50 KA       | 100 KA     | 100 KA       | 50 KA                     |
| Magnetic circuit breaker                         | GV3L40      | GV3L50      | GV3L65      | GV3L73      | GV4L115    | GV4L115      | NSX160NMA                 |
| Rotary handle                                    |             |             |             |             |            |              |                           |
| Switch-disconnector fuse                         | GS2F        | GS2F        | GS2J        | GS2J        | GS2J       | GS2J         | GS2J GS2LL GS2L           |
| Fuse type                                        | 14 x 51     | 14 x 51     | 22 x 58     | 22 x 58     | 22 x 58    | 22 x 58      | T00 T0                    |
| Operational current I <sub>e</sub> /400 V        | 40 A        | 50 A        | 80 A        | 100 A       | 100 A      | 125 A        | 160 A                     |
| Thermal overload relay cI10A                     | —           | —           | —           | LRD3361     | LRD3365    | LRD4367      | LRD4369                   |
| Thermal overload relay cI20                      | LRD340      | LRD350      | LRD365      | —           | —          | LR9D5369 (2) | LR9D5369 (2)              |
|                                                  | LRD340L     | LRD350L     | LRD365L     | LR2D3563    | —          | LR9D5569 (2) | LR9D5569 (2)              |

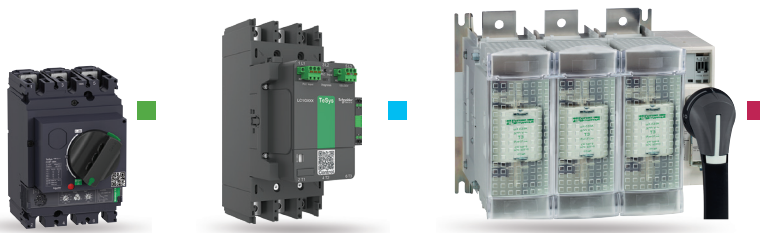
(1) The end of the product references must be replaced with a coil voltage code as indicated above (eg.: "P7" for 230 VAC, "BD" for 24 VDC). For more details, please refer to the TeSys catalog.

(2) Electronic products.



## Build your motor starter!

|                                                                                   | Contactor                  | Thermal-magnetic circuit breaker    | Magnetic circuit breaker            | Switch-disconnector fuse            | Thermal overload relay              |
|-----------------------------------------------------------------------------------|----------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Range name                                                                        | TeSys K, TeSys Deca & Giga | TeSys GV5/GV6, ComPacT NSX/NS       | ComPacT NSX/NS                      | TeSys GS                            | TeSys K, TeSys Deca & Giga          |
| Product reference prefix                                                          | LC                         | GV.P/LV4/33                         | GV.L                                | GS                                  | LR                                  |
| Motor starter structure - 4 functions to be covered:                              |                            |                                     |                                     |                                     |                                     |
|  | Disconnection and breaking | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|  | Short-circuit protection   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
|  | Overload protection        | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|  | Control                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |



| TeSys Giga Contactor<br>LC1G115...LC1G800 | Advanced Version | Standard Version | TeSys F Contactor<br>LC1F1000 | AC | DC |
|-------------------------------------------|------------------|------------------|-------------------------------|----|----|
| Control Voltage code (●●●)                | LC1G.....A       | LC1G.....N       | 110 V                         | F7 | FD |
| 24...48 V AC/DC                           | BEE*             | -                | 220 V                         | M7 | MD |
| 48...130 V AC/DC                          | EHE              | EHE              | 230 V                         | M7 |    |
| 100...250 V AC/DC                         | -                | KUE              | 240 V                         | U7 |    |
| 200...500 V AC/DC                         | LSE              | -                |                               |    |    |
| *LC1G115-LC1G500                          |                  |                  |                               |    |    |

| Motor power AC3 400 V | 55 kW | 75 kW | 90 kW | 110 kW | 132 kW | 160 kW | 200 kW | 250 kW | 335 kW | 450 kW | 500 kW |
|-----------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
|-----------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|

| TeSys Giga contactor     |             |             |             |             |             |             |             |             |             |             |            |
|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|
| Ie max. AC3 (Ue ≤ 440 V) | 115 A       | 150 A       | 185 A       | 225 A       | 265 A       | 330 A       | 400 A       | 500 A       | 630 A       | 800 A       | 1000 A     |
| Ie AC1 (T < 60°C)        | 250 A       | 275 A       | 305 A       | 330 A       | 385 A       | 440 A       | 550 A       | 700 A       | 1050 A      | 1050 A      | 1250 A (2) |
| Contactor (1)            | LC1G115.... | LC1G150.... | LC1G185.... | LC1G225.... | LC1G265.... | LC1G330.... | LC1G400.... | LC1G500.... | LC1G630.... | LC1G800.... | LC1F1000.. |

### 2 devices: Type-2 protection

|                                  |                 |                 |                 |                 |                 |                 |                 |                 |                |                |                |
|----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|
| Breaking capacity Icu/400 V      | 70 kA           | 70 kA           | 70 kA           | 70 kA           | 70 kA           | 70 kA           | 70 kA           | 70 kA           | 70 kA          | 70 kA          | 70 kA          |
| Thermal-magnetic circuit breaker | GV5P150H        | GV5P150H        | GV5P220H        | GV5P220H        | GV6P320H        | GV6P320H        | GV6P500H        | GV6P500H        | NS800H         | NS800H/NS1000H | NS1000L        |
| Trip unit                        | Micrologic 2.2M | Micrologic 2.2M | Micrologic 2.2M | Micrologic 2.2M | Micrologic 2.2M | Micrologic 2.2M | Micrologic 2.2M | Micrologic 2.2M | Micrologic 5.0 | Micrologic 5.0 | Micrologic 5.0 |
| Breaking capacity Icu/400 V      | 36 kA           | 36 kA           | 36 kA           | 36 kA           | 36 kA           | 36 kA           | 36 kA           | 36 kA           | 50 kA          | 50 kA          | 42 kA          |
| Thermal-magnetic circuit breaker | GV5P150F        | GV5P150F        | GV5P220F        | GV5P220F        | GV6P320F        | GV6P320F        | GV6P500F        | GV6P500F        | NS800N         | NS800N         | NS1000L        |
| Trip unit                        | Micrologic 2.2M | Micrologic 2.2M | Micrologic 2.2M | Micrologic 2.2M | Micrologic 2.2M | Micrologic 2.2M | Micrologic 2.2M | Micrologic 2.2M | Micrologic 5.0 | Micrologic 5.0 | Micrologic 5.0 |

### 3 devices: Type-2 protection

|                                 |         |         |         |         |                  |                  |                  |                  |         |                                        |                                         |
|---------------------------------|---------|---------|---------|---------|------------------|------------------|------------------|------------------|---------|----------------------------------------|-----------------------------------------|
| Breaking capacity Icu/ 400 V    | 70 kA   | 70 kA   | 70 kA   | 70 kA   | 70 kA            | 70 kA            | 70 kA            | 70 kA            | 130 kA  | 130 kA                                 | 130 kA                                  |
| Magnetic circuit breaker        | NS160H  | NS160H  | NSX250H | NSX250H | NSX400H          | NSX400H          | NSX630H          | NSX630H          | NS800L  | NS800L                                 | NS1000L                                 |
| Trip unit                       | MA      | MA      | MA      | MA      | Micrologic 1.3-M | Micrologic 1.3-M | Micrologic 1.3-M | Micrologic 1.3-M | (3)     | (3)                                    | (3)                                     |
| Overload relay (4)              | LR9G225 | LR9G225 | LR9G225 | LR9G225 | LR9G500          | LR9G500          | LR9G500          | LR9G500          | LR9G500 | -                                      | LRD05 + Current transformer 800/1 A     |
| Breaking capacity Icu/ 400 V    | 50 kA   | 50 kA   | 50 kA   | 50 kA   | 50 kA            | 50 kA            | 50 kA            | 50 kA            | 130 kA  | 130 kA                                 | 130 kA                                  |
| Magnetic circuit breaker        | NS160N  | NS160N  | NSX250N | NSX250N | NSX400N          | NSX400N          | NSX630N          | NSX630N          | NS800L  | NS800L                                 | NS1000L                                 |
| Trip unit                       | MA      | MA      | MA      | MA      | Micrologic 1.3-M | Micrologic 1.3-M | Micrologic 1.3-M | Micrologic 1.3-M | (3)     | (3)                                    | (3)                                     |
| Overload relay (4)              | LR9G225 | LR9G225 | LR9G225 | LR9G225 | LR9G500          | LR9G500          | LR9G500          | LR9G500          | LR9G500 | -                                      | LRD05 + Current transformer 800/1 A (5) |
| Breaking capacity Icu/ 400 V    | 80 kA   | 80 kA   | 80 kA   | 80 kA   | 80 kA            | 80 kA            | 80 kA            | 80 kA            | 80 kA   | 80 kA                                  | 80 kA                                   |
| Switch-disconnector fuse        | GS2L    | GS2L    | GS2N    | GS2N    | GS2N             | GS2QQ            | GS2S             | GS2S             | GS2S    | GS2V                                   | GS2V                                    |
| Fuse size (type DIN - aM fuses) | 0       | 0       | 1       | 1       | 2                | 2                | 3                | 3                | 4       | 4                                      | 4                                       |
| Operational current Ie/ 400 V   | 125 A   | 160 A   | 200 A   | 250 A   | 315 A            | 400 A            | 500 A            | 500 A            | 800 A   | 800 A                                  | 1000 A                                  |
| Overload relay (4)              | LR9G115 | LR9G225 | LR9G225 | LR9G225 | LR9G500          | LR9G500          | LR9G500          | LR9G500          | LR9G630 | LRD10 + current transformer 5A/5VA (5) | LRD10 + current transformer 5A/5VA (5)  |

(1) Contactor references must be completed with coil voltage code as indicated above table (eg.: "LSE" for 200...500V AC/DC control voltage) and ended with A for Advanced version and N for Standard version. For more details, please refer to the TeSys Giga catalog.

(2) 1250 A at 40 °C.

(3) Micrologic 5.0 + Plug LR Off.

(4) LR9G- Electronic thermal over-load relay with trip class selection from 5e...30e with phase imbalance and ground fault protections.

(5) Thermal overload relay class 10 A.

# TeSys Universal

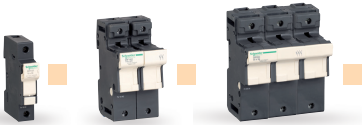
## Build your motor starter!

|                                                                                   |                            | Main/Emergency stop switch-disconnector                                           | Fuse carrier                                                                      | Control relay                                                                     |
|-----------------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Range name                                                                        |                            | TeSys Vario                                                                       | TeSys DF                                                                          | TeSys CAD, CAK                                                                    |
| Product reference prefix                                                          |                            | V                                                                                 | DF                                                                                | CAD, CAK                                                                          |
| Motor starter structure - 4 functions to be covered:                              |                            |                                                                                   |                                                                                   |                                                                                   |
|  | Disconnection and breaking |  |  |  |
|  | Short-circuit protection   |  |  |  |
|  | Overload protection        |  |  |  |
|  | Control                    |  |  |  |



4

| TeSys Vario                        |               | Application  | Standard |         | High performance |        |       |       |       |       |       |       |       |
|------------------------------------|---------------|--------------|----------|---------|------------------|--------|-------|-------|-------|-------|-------|-------|-------|
|                                    |               | Ith (A)      | 12       | 20      | 12               | 20     | 25    | 32    | 40    | 63    | 80    | 125   | 175   |
| Main switch-disconnector           | Door mounting | D22 fixing   | VBDN12   | VBDN20  | VBD02            | VBD01  | VBD0  | VBD1  | VBD2  | —     | —     | —     | —     |
|                                    |               | Screw fixing | —        | —       | VBF02            | VBF01  | VBF0  | VBF1  | VBF2  | VBF3  | VBF4  | VBF5  | VBF6  |
| Emergency stop switch-disconnector | Door mounting | D22 fixing   | VCDN12   | VCDN20  | VCD02            | VCD01  | VCD0  | VCD1  | VCD2  | —     | —     | —     | —     |
|                                    |               | Screw fixing | —        | —       | VCF02            | VCF01  | VCF0  | VCF1  | VCF2  | VCF3  | VCF4  | VCF5  | VCF6  |
|                                    | Back mounting | D22 fixing   | VCCDN12  | VCCDN20 | VCCD02           | VCCD01 | VCCD0 | VCCD1 | VCCD2 | —     | —     | —     | —     |
|                                    |               | Screw fixing | —        | —       | VCCF02           | VCCF01 | VCCF0 | VCCF1 | VCCF2 | VCCF3 | VCCF4 | VCCF5 | VCCF6 |



| TeSys DF fuse carrier   |         |      |       |       |       |
|-------------------------|---------|------|-------|-------|-------|
| Fuse type               |         | 8x32 | 10x38 | 14x51 | 22x58 |
| Fuse carrier            | 1 pole  | DF81 | DF101 | DF141 | DF221 |
|                         | 2 poles | DF82 | DF102 | DF142 | DF222 |
|                         | 3 poles | DF83 | DF103 | DF143 | DF223 |
| Thermal current Ith (A) |         | 25   | 32    | 50    | 125   |



| TeSys Control relay |    |                 |                 |                                 |
|---------------------|----|-----------------|-----------------|---------------------------------|
| Auxiliary contact   |    | AC control coil | DC control coil | DC control coil low consumption |
| NO                  | NC | 4.5 VA          | 3 W             | 1.8 W                           |
| 4                   | —  | CA2KN40●●       | CA3KN40●●       | CA3KN40BW3                      |
| 3                   | 1  | CA2KN31●●       | CA3KN31●●       | CA3KN31BW3                      |
| 2                   | 2  | CA2KN22●●       | CA3KN22●●       | CA3KN22BW3                      |
|                     |    | 8 VA            | 5.4 W           | 2.4 W                           |
| 5                   | —  | CAD50●●         |                 |                                 |
| 3                   | 2  | CAD32●●         |                 |                                 |

### Voltage coil code

|       | AC | DC | DC <2.4 W |
|-------|----|----|-----------|
| 24 V  | B7 | BD | BL        |
| 48 V  | E7 | ED | EL        |
| 110 V | F7 | FD | FL        |
| 220 V | M7 |    |           |
| 230 V | P7 |    |           |



# Distribution system protection

ComPacT NSXm molded-case circuit breakers and switch-disconnectors up to 160 A and 70 kA at 415 V



For breaking capacity, replace ● with: E (16 kA at 380/415 V), B (25 kA at 380/415 V), F (36 kA at 380/415 V), N (50 kA at 380/415 V), or H (70 kA at 380/415 V).

## ComPacT NSXm circuit breaker

With thermal-magnetic trip unit TM-D

EverLink™ connectors

| Rating | Trip unit | 3P          | 4P 3d       | 4P 4d       |
|--------|-----------|-------------|-------------|-------------|
| 16 A   | TM16D     | C11●3TM016L | C11●6TM016L | C11●4TM016L |
| 25 A   | TM25D     | C11●3TM025L | C11●6TM025L | C11●4TM025L |
| 32 A   | TM32D     | C11●3TM032L | C11●6TM032L | C11●4TM032L |
| 40 A   | TM40D     | C11●3TM040L | C11●6TM040L | C11●4TM040L |
| 50 A   | TM50D     | C11●3TM050L | C11●6TM050L | C11●4TM050L |
| 63 A   | TM63D     | C11●3TM063L | C11●6TM063L | C11●4TM063L |
| 80 A   | TM80D     | C11●3TM080L | C11●6TM080L | C11●4TM080L |
| 100 A  | TM100D    | C11●3TM100L | C11●6TM100L | C11●4TM100L |
| 125 A  | TM125D    | C12●3TM125L | C12●6TM125L | C12●4TM125L |
| 160 A  | TM160D    | C12●3TM160L | C12●6TM160L | C12●4TM160L |

## ComPacT NSXm NA switch-disconnector

EverLink™ connectors

| Rating | 3P        | 4P        |
|--------|-----------|-----------|
| 50 A   | C113050LS | C114050LS |
| 100 A  | C113100LS | C114100LS |
| 160 A  | C123160LS | C124160LS |

**Note:** For accessories and more details, please refer to the ComPacT NSX & NSXm catalog.

PowerPact B molded-case circuit breakers up to 125 A and 65 kA at 480 V



## PowerPact B-Frame 125 A unit-mount thermal-magnetic circuit breakers (480 VAC) Delta rated

With factory sealed trip unit (suitable for reverse connection)

B-Frame, 125 A, 3P, 480 VAC 50/60 Hz with EverLink™ connectors

| Current rating at 40 °C (A) | Fixed AC magnetic trip (A) |      | Interrupting rating standard (80%) rated |            |            |
|-----------------------------|----------------------------|------|------------------------------------------|------------|------------|
|                             | Hold                       | Trip | D - 18 kA                                | G - 35 kA  | J - 65 kA  |
| 15                          | 400                        | 600  | BDL36015LU                               | BGL36015LU | BJL36015LU |
| 20                          | 400                        | 600  | BDL36020LU                               | BGL36020LU | BJL36020LU |
| 25                          | 400                        | 600  | BDL36025LU                               | BGL36025LU | BJL36025LU |
| 30                          | 400                        | 600  | BDL36030LU                               | BGL36030LU | BJL36030LU |
| 35                          | 400                        | 600  | BDL36035LU                               | BGL36035LU | BJL36035LU |
| 40                          | 400                        | 600  | BDL36040LU                               | BGL36040LU | BJL36040LU |
| 45                          | 400                        | 600  | BDL36045LU                               | —          | BJL36045LU |
| 50                          | 480                        | 720  | BDL36050LU                               | BGL36050LU | BJL36050LU |
| 60                          | 640                        | 960  | BDL36060LU                               | BGL36060LU | BJL36060LU |
| 70                          | 640                        | 960  | BDL36070LU                               | BGL36070LU | BJL36070LU |
| 80                          | 800                        | 1200 | BDL36080LU                               | BGL36080LU | BJL36080LU |
| 90                          | 1000                       | 1500 | BDL36090LU                               | BGL36090LU | BJL36090LU |
| 100                         | 1000                       | 1500 | BDL36100LU                               | BGL36100LU | BJL36100LU |
| 110                         | 1000                       | 1500 | BDL36110LU                               | BGL36110LU | BJL36110LU |
| 125                         | 1000                       | 1500 | BDL36125LU                               | BGL36125LU | BJL36125LU |

**Note:** For accessories and more details, please refer to the PowerPact B catalog.

# Distribution system protection

## Multi9 miniature circuit breakers

Feeder products - C60BP - UL 489 - Z, C, D curves – Tunnel terminals



### Main characteristics

| Number of 18 mm/0.71 in. poles | Rating (A) 25 °C/77 °F | Breaking capacity (kA rms)<br>AIR UL 489/CSA C22.2 No 5 |        |        |         | Icu<br>IEC 60947 - 2 |        |        |       |
|--------------------------------|------------------------|---------------------------------------------------------|--------|--------|---------|----------------------|--------|--------|-------|
| Poles                          | Voltage (Ue)           | 277 V~                                                  | 240 V~ | 120 V~ | 60 V ≡  | 440 V~               | 415 V~ | 240 V~ | 60 ≡  |
| 1P                             | 0.5 to 35              | 10                                                      | 14     | 14     | 10      | –                    | 3      | 10     | 20    |
|                                | 40 to 63               | –                                                       | 10     | 10     | 10      | –                    | 3      | 10     | 20    |
| Poles                          | Voltage (Ue)           | 480Y/277 V~                                             |        | 240 V~ | 125 V ≡ | 440 V~               | 415 V~ | 240 V~ | 125 ≡ |
| 2P                             | 1 to 25                | 10                                                      |        | 14     | 10      | 6                    | 10     | 20     | –     |
|                                | 30 to 35               | 10                                                      |        | 14     | –       | 6                    | 10     | 20     | –     |
| 3P                             | 1 to 35                | 10                                                      |        | 14     | –       | 6                    | 10     | 20     | –     |
| 2P/3P                          | 40 to 63               | –                                                       |        | 10     | –       | 6                    | 10     | 20     | –     |

### Tunnel terminal connection

| Type              | UL489 and CSA voltages   | 1P                             |          | 2P       | 3P       |
|-------------------|--------------------------|--------------------------------|----------|----------|----------|
| Auxiliaries       |                          | Remote indication and tripping |          |          |          |
| Rating (In)       |                          | Curve                          |          | Curve    | Curve    |
|                   |                          | Z                              | C        | C        | C        |
| C60 <sub>SP</sub> |                          |                                |          |          |          |
| 0.5               | 480 Y/277 V<br>and 240 V | M9F44170                       | M9F42170 | –        | –        |
| 1                 |                          | M9F44101                       | M9F42101 | M9F42201 | M9F42301 |
| 2                 |                          | M9F44102                       | M9F42102 | M9F42202 | M9F42302 |
| 3                 |                          | M9F44103                       | M9F42103 | M9F42203 | M9F42303 |
| 4                 |                          | M9F44104                       | M9F42104 | M9F42204 | M9F42304 |
| 5                 |                          | M9F44105                       | M9F42105 | M9F42205 | M9F42305 |
| 6                 |                          | M9F44106                       | M9F42106 | M9F42206 | M9F42306 |
| 8                 |                          | M9F44108                       | M9F42108 | M9F42208 | M9F42308 |
| 10                |                          | M9F44110                       | M9F42110 | M9F42210 | M9F42310 |
| 15                |                          | M9F44115                       | M9F42115 | M9F42215 | M9F42315 |
| 20                |                          | M9F44120                       | M9F42120 | M9F42220 | M9F42320 |
| 25                |                          | M9F44125                       | M9F42125 | M9F42225 | M9F42325 |
| 30                |                          | M9F44130                       | M9F42130 | M9F42230 | M9F42330 |
| 35                |                          | M9F44135                       | M9F42135 | M9F42235 | M9F42335 |
| 40                | 240 V                    | M9F44140                       | M9F42140 | M9F42240 | M9F42340 |
| 45                |                          | M9F44145                       | M9F42145 | M9F42245 | M9F42345 |
| 50                |                          | M9F44150                       | M9F42150 | M9F42250 | M9F42350 |
| 63                |                          | M9F44163                       | M9F42163 | M9F42263 | M9F42363 |

**Note:** For accessories and more details, please refer to the Multi9 catalog.

In order to check the availability of the Multi9 range in your country, please contact your local Schneider Electric representative.

Except for the US market, use of the Acti9 range is still possible.

Except for the North American market, Acti9 range is the another solution.

For existing version and as well as Ring Terminal version, use C60BPR.

# Distribution system protection

## Multi9 miniature circuit breakers

Supplementary protection products - C60SP - UL 1077 - B, C, D curves – Tunnel terminals



### Main characteristics

| Number of<br>18 mm/0.71 in. poles | Rating (A)<br>25 °C/77 °F | Breaking capacity (kA rms) AIR UL 1077/CSA<br>C22.2 No 235 |        |        |         | Icu<br>IEC 60947 - 2 |        |        |       |
|-----------------------------------|---------------------------|------------------------------------------------------------|--------|--------|---------|----------------------|--------|--------|-------|
| Poles                             | Voltage (Ue)              | 277 V~                                                     | 240 V~ | 120 V~ | 65 V ~  | 440 V~               | 415 V~ | 240 V~ | 60 ~  |
| 1P                                | 0.5 to 32                 | 10                                                         | 14     | 14     | 10      | —                    | 3      | 10     | 20    |
|                                   | 40 to 63                  | 5                                                          | 10     | 10     | 10      | —                    | 3      | 10     | 20    |
| Poles                             | Voltage (Ue)              | 480Y/277 V~                                                |        | 240 V~ | 125 V ~ | 440 V~               | 415 V~ | 240 V~ | 125 ~ |
| 2P                                | 1 to 25                   | 10                                                         |        | 14     | 10      | 6                    | 10     | 20     | —     |
|                                   | 32                        | 10                                                         |        | 14     | —       | 6                    | 10     | 20     | —     |
| 3P/4P                             | 2 to 32                   | 10                                                         |        | 14     | —       | 6                    | 10     | 20     | —     |
| 2P/3P/4P                          | 40 to 63                  | 5                                                          |        | 10     | —       | 6                    | 10     | 20     | —     |

### Tunnel terminal connection

| Type              | 1P                             |          |          | 2P       |          | 3P       |          | 4P       |          |
|-------------------|--------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| Auxiliaries       | Remote indication and tripping |          |          |          |          |          |          |          |          |
| Rating (In)       | Curve                          |          |          | Curve    |          | Curve    |          | Curve    |          |
|                   | B                              | C        | D (=K)   | Curve B  | C        | B        | C        | B        | C        |
| C60 <sub>SP</sub> |                                |          |          |          |          |          |          |          |          |
| 0.5               | M9F21170                       | M9F22170 | M9F23170 | —        | —        | —        | —        | —        | —        |
| 1                 | M9F21101                       | M9F22101 | M9F23101 | M9F21201 | M9F22201 | —        | —        | —        | —        |
| 2                 | M9F21102                       | M9F22102 | M9F23102 | M9F21202 | M9F22202 | M9F21302 | M9F22302 | M9F21402 | M9F22402 |
| 3                 | M9F21103                       | M9F22103 | M9F23103 | M9F21203 | M9F22203 | —        | —        |          |          |
| 4                 | M9F21104                       | M9F22104 | M9F23104 | M9F21204 | M9F22204 | —        | —        |          |          |
| 5                 | M9F21105                       | M9F22105 | M9F23105 | M9F21205 | M9F22205 | —        | —        |          |          |
| 6                 | M9F21106                       | M9F22106 | M9F23106 | M9F21206 | M9F22206 | M9F21306 | M9F22306 | M9F21406 | M9F22406 |
| 8                 | M9F21108                       | M9F22108 | M9F23108 | M9F21208 | M9F22208 | M9F21308 | M9F22308 | M9F21408 | M9F22408 |
| 10                | M9F21110                       | M9F22110 | M9F23110 | M9F21210 | M9F22210 | M9F21310 | M9F22310 | M9F21410 | M9F22410 |
| 13                | M9F21113                       | M9F22113 | M9F23113 | M9F21213 | M9F22213 | M9F21313 | M9F22313 | M9F21413 | M9F22413 |
| 16                | M9F21116                       | M9F22116 | M9F23116 | M9F21216 | M9F22216 | M9F21316 | M9F22316 | M9F21416 | M9F22416 |
| 20                | M9F21120                       | M9F22120 | M9F23120 | M9F21220 | M9F22220 | M9F21320 | M9F22320 | M9F21420 | M9F22420 |
| 25                | M9F21125                       | M9F22125 | M9F23125 | M9F21225 | M9F22225 | M9F21325 | M9F22325 | M9F21425 | M9F22425 |
| 32                | M9F21132                       | M9F22132 | M9F23132 | M9F21232 | M9F22232 | M9F21332 | M9F22332 | M9F21432 | M9F22432 |
| 40                | M9F21140                       | M9F22140 | M9F23140 | M9F21240 | M9F22240 | M9F21340 | M9F22340 | M9F21440 | M9F22440 |
| 45                | M9F21145                       | M9F22145 | —        | M9F21245 | M9F22245 | M9F21345 | M9F22345 | M9F21445 | M9F22445 |
| 50                | M9F21150                       | M9F22150 | —        | M9F21250 | M9F22250 | M9F21350 | M9F22350 | M9F21450 | M9F22450 |
| 63                | M9F21163                       | M9F22163 | —        | M9F21263 | M9F22263 | M9F21363 | M9F22363 | M9F21463 | M9F22463 |

**Note:** For accessories and more details, please refer to the Multi9 catalog.

In order to check the availability of the Multi9 range in your country, please contact your local Schneider Electric representative.

Except for the US market, use of the Acti9 range is still possible.

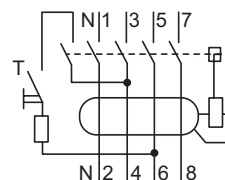
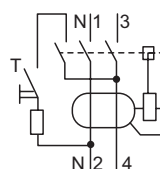
Except for the North American market, Acti9 range is the another solution.



# Distribution system protection

## Multi9 miniature circuit breakers

### Ground fault protector (GFP) UL1053 & IEC/EN 61008

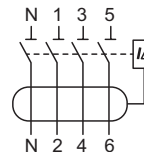
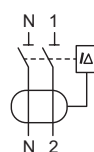


#### GFP UL 1053 type A-SI

| Supported standards | UL, IEC    |                  |                | 2P                           |                                                       | 4P                           |                                                       |
|---------------------|------------|------------------|----------------|------------------------------|-------------------------------------------------------|------------------------------|-------------------------------------------------------|
| A-SI type           | Rating (A) | Sensitivity (mA) |                | Reference                    |                                                       | Reference                    |                                                       |
|                     |            | UL 1053          | IEC / EN 61008 | 120 or 240 V<br>230 or 240 V | 240 V<br>480 V / 277 V<br>230 / 400 or<br>240 / 415 V | 120 or 240 V<br>230 or 240 V | 240 V<br>480 V / 277 V<br>230 / 400 or<br>240 / 415 V |
|                     | A          | mA               | mA             |                              |                                                       |                              |                                                       |
|                     | 25         | 26               | 30             | M9R81225                     | M9R41225                                              | —                            | M9R81425                                              |
|                     |            | 86               | 100            | M9R12225                     | M9R44225                                              | —                            | M9R12425                                              |
|                     |            | 260              | 300            | M9R84225                     | —                                                     | —                            | M9R84425                                              |
|                     | 40         | 26               | 30             | M9R81240                     | M9R41240                                              | —                            | M9R81440                                              |
|                     |            | 260              | 300            | M9R84240                     | —                                                     | —                            | M9R84440                                              |
|                     | 63         | 26               | 30             | M9R81263                     | —                                                     | —                            | M9R81463                                              |
|                     |            | 86               | 100            | —                            | —                                                     | —                            | M9R12463                                              |
| 100                 | 86         | 100              | —              | —                            | —                                                     | M9R12491                     |                                                       |
|                     | 260        | 100              | —              | —                            | —                                                     | M9R84491                     |                                                       |

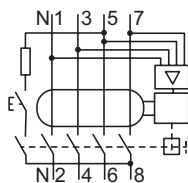
4

## Residual current circuit breakers (RCCB) ID - IEC/EN 61008-1



#### RCCB - ID residual current circuit breakers

| Type                | AC                 |          | A - SI   |          |
|---------------------|--------------------|----------|----------|----------|
| Auxiliaries         | 2P                 |          |          |          |
| Sensitivity         | 30 mA              | 300 mA   | 30 mA    | 300 mA   |
| 25 A                | M9R11225           | —        | —        | —        |
| 40 A                | M9R11240           | M9R14240 | M9R31240 | M9R35240 |
| Voltage rating (Ue) | 230-240 V, 50 Hz   |          |          |          |
| Auxiliaries         | 4P                 |          |          |          |
| 40 A                | M9R11440           | M9R14440 | M9R31440 | M9R35440 |
| 63 A                | —                  | —        | —        | M9R35463 |
| Voltage rating (Ue) | 400 - 415 V, 50 Hz |          |          |          |



#### Acti9 iID B-SI type residual current circuit breakers

| Type                | B-SI       |             | B-SI     |          | B-SI     |          |
|---------------------|------------|-------------|----------|----------|----------|----------|
| 4P                  | Rating (A) | Sensitivity | 30 mA    | 300 mA   | 300 mA   | 500 mA   |
|                     | 25         | B-SI        | A9Z61425 | A9Z64425 | —        | —        |
|                     | 40         | B-SI        | A9Z61440 | A9Z64440 | A9Z65440 | A9Z66440 |
|                     | 63         | B-SI        | A9Z61463 | A9Z64463 | A9Z65463 | A9Z66463 |
|                     | 40         | B-SI        | A9Z61480 | A9Z64480 | A9Z65480 | A9Z66480 |
|                     | 125        | B           | A9R41492 | A9R44492 | A9R45492 | A9R46492 |
| Voltage rating (Ue) | 230/400 V  |             |          |          |          |          |
| Operating frequency | 50 Hz      |             |          |          |          |          |

**Note:** For accessories and more details, please refer to the Multi9 catalog.

In order to check the availability of the Multi9 range in your country, please contact your local Schneider Electric representative.

Except for the US market, use of the Acti9 range is still possible.

Except for the North American market, Acti9 range is the another solution.

# Distribution system monitoring

## Power metering and control

### PowerTag wireless energy sensor

IEC



#### PowerTag Energy 63 A

| Pole | Design      | Type of mounting | Voltage             | Reference     |
|------|-------------|------------------|---------------------|---------------|
| 1P+W | Monoconnect | Top and Bottom   | 200...240V~         | A9MEM1520     |
| 1P+N | Monoconnect | Top              | 200...240V~         | A9MEM1521     |
|      | Monoconnect | Bottom           | 200...240V~         | A9MEM1522     |
|      | Flex        | Top and Bottom   | 200...240V~         | A9MEM1560     |
|      | Flex        | Top and Bottom   | 100...127V~         | A9MEM1564     |
| 3P   | Monoconnect | Top and Bottom   | 380...415V~         | A9MEM1540     |
|      | Flex        | Top and Bottom   | 380...415V~         | A9MEM1573 (1) |
|      | Monoconnect | Top and Bottom   | 200...240V~         | A9MEM1543     |
| 3P+N | Monoconnect | Top              | 220/380...240/415V~ | A9MEM1541     |
|      | Monoconnect | Bottom           | 220/380...240/415V~ | A9MEM1542     |
|      | Flex        | Top and Bottom   | 220/380...240/415V~ | A9MEM1570     |
|      | Flex        | Top and Bottom   | 120/208...137/240V~ | A9MEM1574     |

UL IEC



#### PowerTag Energy Flex 160 A

| Pole    | Rating | Voltage              | Reference |
|---------|--------|----------------------|-----------|
| 3P/3P+N | 160 A  | 100/173... 277/480V~ | A9MEM1580 |

IEC



#### PowerTag Energy Monoconnect 250/630 A

| Pole   | Max current | Voltage    | Reference    |
|--------|-------------|------------|--------------|
| 3P     | 250 A       | 230/400 V~ | LV434020 (2) |
|        | 630 A       | 230/400 V~ | LV434022 (3) |
| 3P + N | 250 A       | 230/400 V~ | LV434021     |
|        | 630 A       | 230/400 V~ | LV434023     |

UL IEC



#### PowerTag Energy Rope up to 2000 A

| Pole      | Max current | Voltage               | Reference |
|-----------|-------------|-----------------------|-----------|
| 3P/3P + N | 200 A       | 100/173... 277/480 V~ | A9MEM1590 |
|           | 600 A       | 100/173... 277/480 V~ | A9MEM1591 |
|           | 1000 A      | 100/173... 277/480 V~ | A9MEM1592 |
|           | 2000 A      | 100/173... 277/480 V~ | A9MEM1593 |

(1) Suitable with TeSys LC1D and GV<63A

(2) Suitable with GV5

(3) Suitable with GV6

# Distribution system monitoring

## Power metering and control

### EcoStruxure Panel Server



#### EcoStruxure Panel Server

IoT gateway for an intelligent power network management providing easy and fast connections to multiple concurrent edge control or cloud applications.

#### Main characteristics of EcoStruxure Panel Server (Ethernet)

|                                                                |                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                          |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application                                                    | Energy monitoring solutions                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                          |
| Energy Data management / Software compatibility                | Advanced Panel Server Local energy server and Data logger<br>Cloud software (EcoStruxure Energy Hub, EcoStruxure Asset Advisor, EcoStruxure Resource Advisor)<br>Edge software (EcoStruxure Power Monitoring Expert, EcoStruxure Building Operation, EcoStruxure Power Operation)<br>Third party SCADA |                                                                                                                                                                                                                                          |
| Communication type                                             | Radio frequency, Modbus RS485, and Modbus TCP/IP                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                          |
| Installation                                                   | DIN rail                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                          |
| IP rating                                                      | Front Face: IP40<br>Others: IP20                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                          |
| Dimensions & Weight (Width x Depth x Height (mm) / Weight (g)) | Entry Panel Server: 103.1 x 54 x 70.2 mm / 163 g<br>Universal Panel Server: 104.2 x 72 x 70.2 mm / 200 g<br>Advanced Panel Server: 104.2 x 72 x 70.2 mm / 200 g                                                                                                                                        |                                                                                                                                                                                                                                          |
| Number of connections                                          | Entry Panel Server                                                                                                                                                                                                                                                                                     | Up to 20 wireless devices<br>64 Modbus TCP/IP client connections                                                                                                                                                                         |
|                                                                | Universal Panel Server                                                                                                                                                                                                                                                                                 | Up to 85 PowerTag Energy wireless sensors / Up to 40 wireless mixed sensors<br>32 Modbus RTU/TCP/IP server connections without repeater<br>128 Modbus RTU/TCP/IP server connections with repeater<br>64 Modbus TCP/IP client connections |
|                                                                | Universal Panel Server Wired by Design                                                                                                                                                                                                                                                                 | 32 Modbus RTU/TCP/IP server connections without repeater<br>128 Modbus RTU/TCP/IP server connections with repeater<br>64 Modbus TCP/IP client connections                                                                                |
|                                                                | Advanced Panel Server                                                                                                                                                                                                                                                                                  | Up to 85 PowerTag Energy wireless sensors / Up to 40 wireless mixed sensors<br>32 Modbus RTU/TCP/IP server connections without repeater<br>128 Modbus RTU/TCP/IP server connections with repeater<br>64 Modbus TCP/IP client connections |
| Certification                                                  | IEC/UL 61010 -1 - 2 - 201, CSA C22.2 no 6101 - 1 - 12 - 2 - 201, IEC 62974 - 1, IEC 62443 - 4 - 1, IEC 61326 - 1, EN 301 - 489 - 17, EN 55032, CISPR 11, EN300 - 328, IEEE 802.15.4, IEEE 802.11a/b/g/n                                                                                                |                                                                                                                                                                                                                                          |

#### EcoStruxure Panel Server Models

| Type                                   | Set | Reference                                                                           |
|----------------------------------------|-----|-------------------------------------------------------------------------------------|
| Entry Panel Server                     | 1   | <b>PAS400</b> (110-277 Vac/Vdc Power Supply)                                        |
| Universal Panel Server                 | 3   | <b>PAS600</b> (110-277 Vac/Vdc Power Supply)                                        |
|                                        |     | <b>PAS600L</b> (24 Vdc Power Supply)                                                |
|                                        |     | <b>PAS600P</b> (PoE Power Supply)                                                   |
| Universal Panel Server Wired by Design | 2   | <b>PAS600LWD</b> (24 Vdc Power Supply)                                              |
|                                        |     | <b>PAS600PWD</b> (PoE Power Supply)                                                 |
| Advanced Panel Server                  | 3   | <b>PAS800</b> (110-277 Vac/Vdc Power Supply)                                        |
|                                        |     | <b>PAS800L</b> (24 Vdc Power Supply)                                                |
|                                        |     | <b>PAS800P</b> (PoE Power Supply)                                                   |
| Panel Server Antenna                   | 2   | <b>PASA-ANT1</b> External Wi-Fi Antenna (Universal and Advanced Panel Server)       |
|                                        |     | <b>PASA-ANT1</b> External IEEE 802.15.4 Antenna (PAS600P and Advanced Panel Server) |

**Note:** For accessories and more details, please refer to the PowerTag and Panel Server catalogs.



# Distribution system monitoring

## Power metering and control

### Energy meter and power meter



| Energy meter           |              |              |                |
|------------------------|--------------|--------------|----------------|
| Type of network        | 1P+N         | 1P+N         | 1P+N, 3P, 3P+N |
| Self-powered           | Yes          | Yes          | Yes            |
| Display                | 1 line       | 1 line       | 3 lines        |
| Width (mm)             | 17.5         | 36           | 90             |
| Current input          | 45 A         | 100 A        | 63 A           |
| Multi tariff           | 2            | -            | -              |
| Communication          | Modbus RS485 | Modbus RS485 | Modbus RS485   |
| Active Energy accuracy | Cl 1         | Cl 1         | Cl 1           |
| I/O                    | 1 Pulse O    | -            | -              |
| Reference              | A9MEM2050    | A9MEM2455    | A9MEM3150      |

**Note:** For more details, please refer to the PowerLogic catalog.



| Power meter            |                            |                            |                            |
|------------------------|----------------------------|----------------------------|----------------------------|
| Type of network        | 1P+N, 3P, 3P+N             | 1P+N, 3P, 3P+N             | 1P+N, 3P, 3P+N             |
| Self-powered           | No                         | No                         | No                         |
| Display                | 6 lines                    | 6 lines                    | 6 lines                    |
| Width (mm)             | 96                         | 96                         | 96                         |
| Current input          | External CT                | External CT                | External CT                |
| Multi tariff           | -                          | 4                          | 8                          |
| Communication          | Modbus RS485               | Ethernet                   | Ethernet                   |
| Active Energy accuracy | Cl 0.5S with 15th harmonic | Cl 0.5S with 31st harmonic | Cl 0.2S with 63rd harmonic |
| I/O                    | 1DO                        | 2DI/ 2DO                   | 2DI/ 2DO                   |
| Reference              | METSEPM5110                | METSEPM5320                | METSEPM5560                |



A man with glasses and a woman with glasses are looking at a tablet together in a technical environment. The man is on the left, wearing a dark jacket, and the woman is on the right, wearing a black turtleneck and a necklace. They are both focused on the tablet. The background shows a rack of electronic equipment with a fan and some cables.

# 05. Altivar soft starters and Altivar variable speed drives



# Altivar Soft Starter ATS01 is for HVAC, pumps, compressors, and other basic motors



|                                                                                                                            |                  |             |             |             |     |             |  |             |             |
|----------------------------------------------------------------------------------------------------------------------------|------------------|-------------|-------------|-------------|-----|-------------|--|-------------|-------------|
| <b>1 Altivar soft starter ATS01 for 0.37 to 11 kW motors and single or 3-phase supply voltage 110...480 V 50/60 Hz (1)</b> |                  |             |             |             |     |             |  |             |             |
| <b>Power for single-phase motor (2)</b>                                                                                    | Under 230 V (kW) | 0.37        |             | 0.75        |     | 1.1         |  | 1.5         | 2.2         |
|                                                                                                                            | Under 110 V (HP) | —           | —           | 0.5         | —   | 1           |  | 1.5         | 2           |
|                                                                                                                            | Under 230 V (kW) | 0.37        | 0.55        | 0.75        | 1.1 | 1.5         |  | 2.2         | 3           |
|                                                                                                                            | Under 230 V (HP) | 0.5         | —           | 1           | 1.5 | 2           |  | 3           | 4           |
|                                                                                                                            | Under 400 V (kW) | 1.1         | —           | 2.2         | 3   | 4           |  | 5.5         | 7.5         |
| <b>Power for 3-phase motor (2)</b>                                                                                         | Under 460 V (HP) | 0.5         | 1.5         | 2           | 3   | 5           |  | 7.5         | 10          |
|                                                                                                                            | Under 460 V (HP) |             |             |             |     |             |  |             | 15          |
| <b>Nominal current I<sub>CL</sub> (A) (3)</b>                                                                              |                  | 3           |             | 6           |     | 9           |  | 12          | 25          |
| <b>Reference</b>                                                                                                           |                  | ATS01N103FT |             | ATS01N106FT |     | ATS01N109FT |  | ATS01N112FT | ATS01N125FT |
| <b>2 Three-phase supply voltage: 200...240 V 50/60 Hz- Replace the ●● with LU</b>                                          |                  |             |             |             |     |             |  |             |             |
| <b>Motor Power in KW</b>                                                                                                   |                  | 0.75/1.1    | 1.5         | 2.2/3       |     | 4/5.5       |  | 7.5         | ATS01●●●●LU |
| <b>Motor Power in HP</b>                                                                                                   |                  | 1/1.5       | 2           | 3/-         |     | 5/7.5       |  | 10          |             |
| <b>Three-phase supply voltage: 380...415 V 50/60 Hz- Replace the ●● with QN</b>                                            |                  |             |             |             |     |             |  |             |             |
| <b>Motor Power in KW</b>                                                                                                   |                  | 1.5/2.2/3   | 4           | 5.5         |     | 7.5/11      |  | 15          | ATS01●●●●QN |
| <b>Three-phase supply voltage: 440...480 V 50/60 Hz- Replace the ●● with RT</b>                                            |                  |             |             |             |     |             |  |             |             |
| <b>Motor Power in HP</b>                                                                                                   |                  | 2/3         | 5           | 7.5         |     | 10/15       |  | 20          | ATS01●●●●RT |
| <b>I<sub>CL</sub> starter rating (A) (3)</b>                                                                               |                  | 6           | 9           | 12          |     | 22          |  | 32          |             |
| <b>References</b>                                                                                                          |                  | ATS01N206●● | ATS01N209●● | ATS01N212●● |     | ATS01N222●● |  | ATS01N232●● |             |

(1) Number of possible start-stops/hour: 100 for starting time of 1 s maximum, 20 for starting time of 5 s maximum.

(2) Standard motor power ratings, HP power ratings indicated according to standard UL508.

(3) I<sub>CL</sub> corresponds to the starter rating.

# Altivar Soft Starter ATS130 is for HVAC, pumps, compressors, and other basic motors



|                                                                                                                         |           |               |               |               |               |               |               |
|-------------------------------------------------------------------------------------------------------------------------|-----------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>Altivar Soft Starter ATS130 3-phase supply voltage 200...480 V 50/60 Hz (8), and 24V DC control power supply (4)</b> |           |               |               |               |               |               |               |
| <b>Motor power (5)</b>                                                                                                  | 208V (HP) | 10            | 10            | 20            | 20            | 25            | 30            |
|                                                                                                                         | 230V (kW) | 11            | 11            | 18.5          | 22            | 22            | 30            |
|                                                                                                                         | 230V (HP) | 10            | 15            | 20            | 25            | 30            | 40            |
|                                                                                                                         | 400V (kW) | 18.5          | 22            | 30            | 37            | 45            | 55            |
|                                                                                                                         | 460V (HP) | 25            | 30            | 40            | 50            | 60            | 75            |
| <b>Rated operational current I<sub>CL</sub> (A)</b>                                                                     |           | 38            | 45            | 65            | 73            | 80            | 105           |
| <b>Reference</b>                                                                                                        |           | ATS130N2D38LT | ATS130N2D38LT | ATS130N2D65LT | ATS130N2D73LT | ATS130N2D80LT | ATS130N2C11LT |

|                                             |                                         |               |               |               |               |               |
|---------------------------------------------|-----------------------------------------|---------------|---------------|---------------|---------------|---------------|
| <b>Build your motor starter with ATS130</b> |                                         |               |               |               |               |               |
|                                             | <b>Thermal-Magnetic circuit breaker</b> | GV3P●●1       | GV3P●●1       | GV3P●●1       | GV3P●●1       | GV4P●●        |
|                                             | <b>Fixing kit (7)</b>                   | VW3G921304    |               |               |               | VW3G921305    |
|                                             | <b>Altivar Soft Starter ATS130 (6)</b>  | ATS130N2D38LT | ATS130N2D45LT | ATS130N2D65LT | ATS130N2D73LT | ATS130N2D80LT |
|                                             | <b>Optional cooling fan (8)</b>         | VW3G941305    |               |               |               |               |

(4) Number of possible start-stops/hour: 50 for starting time of 1s maximum, 10 for starting time 5s maximum, 5 for starting of 10 s maximum.

(5) IE3 motor power ratings, HP power ratings indicated according to standard UL508.

(6) Reduction of number of start- stops / hour for this mounting conditions . For more details, please refer to the product datasheet on our website [www.se.com](http://www.se.com).

(7) Fixing kits for GV3 or GV4 used to maintain in position the circuit breaker and to connect it to ATS130.

(8) The number of starts per hour can be increased by adding a fan. For more details, please refer to the product datasheet on our website [www.se.com](http://www.se.com).



# Altivar Soft Starter ATS22 is for building and industrial segments



## 1 Altivar soft starter ATS22 units for 3-phase power supply voltage 230...440 V and 220 V 50-60 Hz control power supply Connection in the motor power supply line or in the motor delta connection (1)

|                                             |              |           |           |           |           |           |           |           |           |
|---------------------------------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Motor power in kW (motor power supply line) | 230 V        | 4         | 7.5       | 11        | 15        | 18.5      | 22        | 30        | 37        |
|                                             | 400 V        | 7.5       | 15        | 22        | 30        | 37        | 45        | 55        | 75        |
|                                             | 440 V        | 7.5       | 15        | 22        | 30        | 37        | 45        | 55        | 75        |
| Nominal current I <sub>CL</sub> (A) (2)     |              | 17        | 32        | 47        | 62        | 75        | 88        | 110       | 140       |
| Number of starts/hour                       | Without fan  | 6         | 6         | 6         | 6         | 6         | 6         | 4         | 4         |
|                                             | With fan (3) | 10        | 10        | 10        | 10        | 10        | 10        | 10        | 10        |
| Reference                                   |              | ATS22D17Q | ATS22D32Q | ATS22D47Q | ATS22D62Q | ATS22D75Q | ATS22D88Q | ATS22C11Q | ATS22C14Q |

|                                             |              |           |           |           |           |           |           |           |
|---------------------------------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Motor power in kW (motor power supply line) | 230 V        | 45        | 55        | 75        | 90        | 110       | 132       | 160       |
|                                             | 400 V        | 90        | 110       | 132       | 160       | 220       | 250       | 315       |
|                                             | 440 V        | 90        | 110       | 132       | 160       | 220       | 250       | 355       |
| Nominal current I <sub>CL</sub> (A) (2)     |              | 170       | 210       | 250       | 320       | 410       | 480       | 590       |
| Number of starts/hour                       | Without fan  | 4         | —         | —         | —         | —         | —         | —         |
|                                             | With fan (3) | 10        | 4         | 4         | 4         | 4         | 4         | 4         |
| Reference                                   |              | ATS22C17Q | ATS22C21Q | ATS22C25Q | ATS22C32Q | ATS22C41Q | ATS22C48Q | ATS22C59Q |

## 2 Altivar soft starter ATS22 units for 3-phase power supply voltage 230...500 V and 220 V 50-60 Hz control power supply Connection in the motor power supply line

|                                         |              |            |            |            |            |            |            |            |            |
|-----------------------------------------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Motor power in kW                       | 230 V        | 4          | 7.5        | 11         | 15         | 18.5       | 22         | 30         | 37         |
|                                         | 400 V        | 7.5        | 15         | 22         | 30         | 37         | 45         | 55         | 75         |
|                                         | 440 V        | 7.5        | 15         | 22         | 30         | 37         | 45         | 55         | 75         |
|                                         | 500 V        | 9          | 18.5       | 30         | 37         | 45         | 55         | 75         | 90         |
| Nominal current I <sub>CL</sub> (A) (2) |              | 17         | 32         | 47         | 62         | 75         | 88         | 110        | 140        |
| Number of starts/hour                   | Without fan  | —          | —          | —          | —          | —          | —          | —          | —          |
|                                         | With fan (3) | 4          | 4          | 4          | 4          | 4          | 4          | 4          | 4          |
| References                              |              | ATS22D17S6 | ATS22D32S6 | ATS22D47S6 | ATS22D62S6 | ATS22D75S6 | ATS22D88S6 | ATS22C11S6 | ATS22C14S6 |

|                                         |              |            |            |            |            |            |            |            |
|-----------------------------------------|--------------|------------|------------|------------|------------|------------|------------|------------|
| Motor power in kW                       | 230 V        | 45         | 55         | 75         | 90         | 110        | 132        | 160        |
|                                         | 400 V        | 90         | 110        | 132        | 160        | 220        | 250        | 315        |
|                                         | 440 V        | 90         | 110        | 132        | 160        | 220        | 250        | 355        |
|                                         | 500 V        | 110        | 132        | 160        | 220        | 250        | 315        | 400        |
| Nominal current I <sub>CL</sub> (A) (2) |              | 170        | 210        | 250        | 320        | 410        | 480        | 590        |
| Number of starts/hour                   | Without fan  | 4          | —          | —          | —          | —          | —          | —          |
|                                         | With fan (3) | 10         | 4          | 4          | 4          | 4          | 4          | 4          |
| Reference                               |              | ATS22C17S6 | ATS22C21S6 | ATS22C25S6 | ATS22C32S6 | ATS22C41S6 | ATS22C48S6 | ATS22C59S6 |

**Note:** All values given for Altivar soft starter ATS22 are defined for 3.5 x I<sub>n</sub> and 20 s starting time, with motors with thermal protection class 10. These values are for an ambient temperature of 40 °C.

(1) When connected in the delta configuration, starters allow the use of motors of a larger rating relative to that of the starter. In this configuration, the nominal motor current should not exceed 1.5 I<sub>CL</sub>.

(2) I<sub>CL</sub> corresponds to the starter rating.

(3) All soft starters from motor power 55 kW to 160 kW (ATS22C21.. to ATS22C59..) are equipped with a fan as standard.

For soft starters under 55 kW (ATS22D17.. to ATS22C17..), the number of starts per hour can be increased by adding a fan. For more details, please refer to the product datasheets on our website [www.se.com](http://www.se.com).

# Altivar 212 - IP21 drives for building and HVAC projects (fan, pump, compressor)



## Three-phase supply voltage: 200...240 V 50/60 Hz, without EMC filter (1)

|                                   |                                                    |                 |     |      |                 |      |                 |
|-----------------------------------|----------------------------------------------------|-----------------|-----|------|-----------------|------|-----------------|
| <b>Motor</b>                      | Power indicated on rating plate in kW              | 0.75            | 1.5 | 2.2  | 3               | 4    | 5.5             |
|                                   | Power indicated on rating plate in HP              | 1               | 2   | 3    | —               | 5    | 7.5             |
| <b>Altivar 212</b>                | Max. continuous output current (In) 230 V in A (2) | 4.6             | 7.5 | 10.6 | 13.7            | 18.7 | 24.2            |
| <b>Dimensions: W x H x D (mm)</b> | EMC plate mounted (mm)                             | 107 x 192 x 150 |     |      | 142 x 232 x 150 |      | 180 x 307 x 170 |
|                                   | EMC plate not mounted (mm)                         | 107 x 143 x 150 |     |      | 142 x 184 x 150 |      | 180 x 232 x 170 |
| <b>Reference</b>                  |                                                    | —               | —   | —    | —               | —    | —               |

|                                   |                                                    |                 |                 |    |      |                 |                 |
|-----------------------------------|----------------------------------------------------|-----------------|-----------------|----|------|-----------------|-----------------|
| <b>Motor</b>                      | Power indicated on rating plate in kW              | 7.5             | 11              | 15 | 18.5 | 22              | 30              |
|                                   | Power indicated on rating plate in HP              | 10              | 15              | 20 | 25   | 30              | 40              |
| <b>Altivar 212</b>                | Max. continuous output current (In) 230 V in A (2) | 32              | 46.2            | 61 | 74.8 | 88              | 117             |
| <b>Dimensions: W x H x D (mm)</b> | EMC plate mounted (mm)                             | 180 x 307 x 170 | 245 x 405 x 190 |    |      | 240 x 542 x 214 | 320 x 723 x 290 |
|                                   | EMC plate not mounted (mm)                         | 180 x 232 x 170 | 246 x 330 x 190 |    |      | 240 x 420 x 214 | 320 x 605 x 290 |
| <b>Reference</b>                  |                                                    | —               | —               | —  | —    | —               | —               |

## Three-phase supply voltage: 380...480 V 50/60 Hz, with integrated category C2 or C3 EMC filter (1)

|                                   |                                              |                 |              |              |                 |              |              |
|-----------------------------------|----------------------------------------------|-----------------|--------------|--------------|-----------------|--------------|--------------|
| <b>Motor</b>                      | Power indicated on rating plate in kW        | 0.75            | 1.5          | 2.2          | 3               | 4            | 5.5          |
|                                   | Power indicated on rating plate in HP        | 1               | 2            | 3            | 3               | 5            | 7.5          |
| <b>Altivar 212</b>                | Max. continuous output current (In) in A (2) | 2.2             | 3.7          | 5.1          | 7.2             | 9.1          | 12           |
| <b>Dimensions: W x H x D (mm)</b> | EMC plate mounted (mm)                       | 107 x 192 x 150 |              |              | 142 x 232 x 150 |              |              |
|                                   | EMC plate not mounted (mm)                   | 107 x 143 x 150 |              |              | 142 x 184 x 150 |              |              |
| <b>Reference</b>                  |                                              | ATV212H075N4    | ATV212HU15N4 | ATV212HU22N4 | ATV212HU30N4    | ATV212HU40N4 | ATV212HU55N4 |

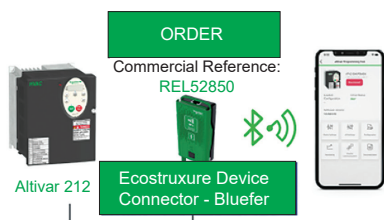
|                                   |                                              |                 |                 |              |              |                 |              |
|-----------------------------------|----------------------------------------------|-----------------|-----------------|--------------|--------------|-----------------|--------------|
| <b>Motor</b>                      | Power indicated on rating plate in kW        | 7.5             | 11              | 15           | 18.5         | 22              | 22           |
|                                   | Power indicated on rating plate in HP        | 10              | 15              | 20           | 25           | 30              | 30           |
| <b>Altivar 212</b>                | Max. continuous output current (In) in A (2) | 16              | 22.5            | 30.5         | 37           | 43.5            | 43.5         |
| <b>Dimensions: W x H x D (mm)</b> | EMC plate mounted (mm)                       | 180 x 307 x 170 | 245 x 405 x 190 |              |              | 240 x 542 x 214 |              |
|                                   | EMC plate not mounted (mm)                   | 180 x 232 x 170 | 245 x 330 x 190 |              |              | 240 x 420 x 214 |              |
| <b>Reference</b>                  |                                              | ATV212HU75N4    | ATV212HD11N4    | ATV212HD15N4 | ATV212HD18N4 | ATV212HD22N4S   | ATV212HD22N4 |

|                                   |                                              |                 |                 |              |                 |              |
|-----------------------------------|----------------------------------------------|-----------------|-----------------|--------------|-----------------|--------------|
| <b>Motor</b>                      | Power indicated on rating plate in kW        | 30              | 37              | 45           | 55              | 75           |
|                                   | Power indicated on rating plate in HP        | 40              | 50              | 60           | 75              | 100          |
| <b>Altivar 212</b>                | Max. continuous output current (In) in A (2) | 58.5            | 79              | 94           | 116             | 160          |
| <b>Dimensions: W x H x D (mm)</b> | EMC plate mounted (mm)                       | 240 x 542 x 214 | 240 x 663 x 244 |              | 320 x 723 x 290 |              |
|                                   | EMC plate not mounted (mm)                   | 240 x 420 x 214 | 240 x 550 x 244 |              | 320 x 605 x 290 |              |
| <b>Reference</b>                  |                                              | ATV212HD30N4    | ATV212HD37N4    | ATV212HD45N4 | ATV212HD55N4    | ATV212HD75N4 |

(1) Drives are supplied with an EMC plate, for customer assembly.

(2) These values are given for a nominal switching frequency of 12 kHz up to ATV212HD15M3X and up to ATV212HD15N4 or 8 kHz for ATV212HD18M3X... HD30M3X and ATV212HD18N4...HD75N4, for use in continuous operation. The switching frequency can be set between 6 and 16 kHz for all ratings. Above 8 kHz or 12 kHz, depending on the rating, the drive will reduce the switching frequency automatically in the event of an excessive temperature rise. For continuous operation above the nominal switching frequency, derate the nominal drive current. The nominal motor current must not exceed this derating value. See the derating curves on our website [www.se.com](http://www.se.com).

Setup ATV212 with "Ecostruxure Industrial Device" Mobile Application



Free

"Ecostruxure Industrial Device" mobile application for IOS or Android

Download the application via application stores:



Modbus RS232 Serial Cable with RJ45 Connectors on both sides

Ecostruxure Device Connector - Bluefer is necessary to connect mobile application to ATV212

# Altivar 12 ultra-compact variable speed drives for commercial equipment



## 1 Altivar 12 drives with heatsink and single-phase supply voltage: 100...120 V 50/60 Hz (1) (2)

|                                       |                                    |                             |                         |                         |
|---------------------------------------|------------------------------------|-----------------------------|-------------------------|-------------------------|
| <b>Motor</b>                          | Power indicated on plate in kW (3) | 0.18                        | 0.37                    | 0.75                    |
|                                       | Power indicated on plate in HP (3) | 0.25                        | 0.5                     | 1                       |
| <b>Altivar 12</b>                     | Max. continuous output current (3) | 1.4                         | 2.4                     | 4.2                     |
|                                       | Embedded communication             | Modbus Serial Line          |                         |                         |
|                                       | Application intelligence           | Embedded functions          |                         |                         |
|                                       | Withstand to harsh environment     | Up to 60 °C with derating   |                         |                         |
| <b>Dimensions: W x H x D (mm) (4)</b> |                                    | 72 x 143 x 102              | 72 x 143 x 121          | 105 x 142 x 156         |
| <b>Reference</b>                      |                                    | <b>ATV12<br/>H018F1 (4)</b> | <b>ATV12<br/>H037F1</b> | <b>ATV12<br/>H075F1</b> |

## Altivar 12 drives with heatsink and single-phase supply voltage: 200...240 V 50/60 Hz (1) (2)

|                   |                                       |                             |                         |                         |                         |                         |                         |
|-------------------|---------------------------------------|-----------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Motor</b>      | Power indicated on plate in kW (3)    | 0.18                        | 0.37                    | 0.55                    | 0.75                    | 1.5                     | 2.2                     |
|                   | Power indicated on plate in HP (3)    | 0.25                        | 0.55                    | 0.75                    | 1                       | 2                       | 3                       |
| <b>Altivar 12</b> | Max. continuous output current (3)    | 1.4                         | 2.4                     | 3.5                     | 4.2                     | 7.5                     | 10                      |
|                   | <b>Dimensions: W x H x D (mm) (4)</b> | 72 x 143 x 102              | 72 x 143 x 121          | 72 x 143 x 131          |                         | 105 x 142 x 156         |                         |
| <b>Reference</b>  |                                       | <b>ATV12<br/>H018M2 (4)</b> | <b>ATV12<br/>H037M2</b> | <b>ATV12<br/>H055M2</b> | <b>ATV12<br/>H075M2</b> | <b>ATV12<br/>HU15M2</b> | <b>ATV12<br/>HU22M2</b> |

## Altivar 12 drives with heatsink and three-phase supply voltage: 200...240 V 50/60 Hz (1) (2)

|                   |                                       |                             |                         |                         |                         |                         |                         |                         |
|-------------------|---------------------------------------|-----------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Motor</b>      | Power indicated on plate in kW (3)    | 0.18                        | 0.37                    | 0.75                    | 1.5                     | 2.2                     | 3                       | 4                       |
|                   | Power indicated on plate in HP (3)    | 0.25                        | 0.55                    | 1                       | 2                       | 3                       | —                       | 5                       |
| <b>Altivar 12</b> | Max. continuous output current (3)    | 1.4                         | 2.4                     | 4.2                     | 7.5                     | 10                      | 12.2                    | 16.7                    |
|                   | <b>Dimensions: W x H x D (mm) (4)</b> | 72 x 143 x 102              | 72 x 143 x 121          | 72 x 143 x 131          | 105 x 143 x 131         |                         | 140 x 184 x 141         |                         |
| <b>Reference</b>  |                                       | <b>ATV12<br/>H018M3 (4)</b> | <b>ATV12<br/>H037M3</b> | <b>ATV12<br/>H075M3</b> | <b>ATV12<br/>HU15M3</b> | <b>ATV12<br/>HU22M3</b> | <b>ATV12<br/>HU30M3</b> | <b>ATV12<br/>HU40M3</b> |

## 2 Accessories for Altivar 12 drives

|                      |                                      |                                     |                                        |
|----------------------|--------------------------------------|-------------------------------------|----------------------------------------|
| <b>Accessory</b>     | Simple Loader configuration tool (5) | Multi-Loader configuration tool (5) | USB/RJ45 cable for PC-drive connection |
| <b>Compatibility</b> | All Altivar 12 variable speed drives |                                     |                                        |
| <b>Reference</b>     | <b>VW3A8120</b>                      | <b>VW3A8121</b>                     | <b>TCSMCNAM3M002P</b>                  |

**Note:** Altivar 12 variable speed drives are designed for 3-phase asynchronous motors.

(1) Min. (U1) and max. (U2) nominal supply voltage: 100 (U1)...120 V (U2), 200 (U1)...240 V (U2).

(2) Altivar 12 variable speed drives are supplied with built-in EMC filters and comply with standard IEC/EN 61800-3. For more information, please refer to the product datasheet on our website [www.se.com](http://www.se.com).

(3) These values are given for a nominal switching frequency of 4 kHz, for continuous operation. For derated operation, please refer to the product catalog. ATV12 variable speed drives can supply a transient output current of 1.5 x In for 60 s for every 10 min. cycle.

(4) All dimensions provided are without EMC plate installed.

(5) For more information about this tool, please refer to the product datasheet on our website [www.se.com](http://www.se.com).

# Communication modules and accessories for ATV320 variable speed drives



## 3 Communication buses and networks for ATV320

|                                         |                                               |                                         |                                    |
|-----------------------------------------|-----------------------------------------------|-----------------------------------------|------------------------------------|
| <b>Type of communication module (6)</b> | CANopen daisy chain (7) (8) (9)               | CANopen SUB-D9 (7) (8) (9)              | CANopen open style (7) (8) (9)     |
| <b>Reference</b>                        | <b>VW3A3608</b>                               | <b>VW3A3618</b>                         | <b>VW3A3628</b>                    |
| <b>Type of communication module (6)</b> | Modbus TCP and Ethernet/IP network module (8) | PROFIBUS DP V1 communication module (8) | DeviceNet communication module (8) |
| <b>Reference</b>                        | <b>VW3A3616</b>                               | <b>VW3A3607</b>                         | <b>VW3A3609</b>                    |
| <b>Type of communication module (6)</b> | EtherCat communication module (8)             | ProfiNet communication module (8)       | Powerlink Communication module     |
| <b>Reference</b>                        | <b>VW3A3601</b>                               | <b>VW3A3627</b>                         | <b>VW3A3619</b>                    |

## 4 Accessories

|                   |                                                  |                                                  |                                        |
|-------------------|--------------------------------------------------|--------------------------------------------------|----------------------------------------|
| Type of accessory | Communication adapter module (6)                 | Advance keypad                                   |                                        |
| Compatibility     | ATV320● compact                                  | All Altivar Machine ATV320 variable speed drives |                                        |
| Reference (8)     | VW3A3600                                         | VW3A1111                                         |                                        |
| Type of accessory | Simple Loader configuration tool (10)            | Multi-Loader configuration tool (10)             | USB/RJ45 cable for PC-drive connection |
| Compatibility     | All Altivar Machine ATV320 variable speed drives |                                                  |                                        |
| Reference         | VW3A8120                                         | VW3A8121                                         | TCSMCNAM3M002P                         |

(6) Altivar Machine ATV320 products with a compact control block require the VW3A3600 option adapter module in order to use any optional communication module.

(7) The Modbus serial link always uses the RJ45 communication port. If simultaneous use of the Modbus serial link and the CANopen machine bus is required, a CANopen communication module is needed.

(8) The Altivar Machine ATV320 drive can only take one communication module.

(9) When one of the CANopen communication modules is inserted in the Altivar Machine ATV320 drive, CANopen communication via the RJ45 communication port is disabled.

(10) For more information about this tool, please refer to the product datasheet on our website [www.se.com](http://www.se.com).



# Altivar Machine ATV320 variable speed drives for simple and advanced machines



## 1 ATV320 drives with compact control block and single-phase supply voltage 200...240 V 50/60 Hz

|                                   |                                    |                      |                      |                      |                      |                      |                      |                      |
|-----------------------------------|------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Motor</b>                      | Power indicated on plate in kW     | 0.18                 | 0.37                 | 0.55                 | 0.75                 | 1.1                  | 1.5                  | 2.2                  |
|                                   | Power indicated on plate in HP     | 0.25                 | 0.5                  | 0.75                 | 1                    | 1.5                  | 2                    | 3                    |
| <b>Altivar 320</b>                | Max. continuous output current (1) | 1.5                  | 3.3                  | 3.7                  | 4.8                  | 6.9                  | 8                    | 11                   |
| <b>Dimensions: W x H x D (mm)</b> |                                    | 72 x 143 x 109       | 72 x 143 x 128       | 72 x 143 x 138       |                      |                      | 105 x 142 x 158      |                      |
| <b>Reference</b>                  |                                    | <b>ATV320 U02M2C</b> | <b>ATV320 U04M2C</b> | <b>ATV320 U06M2C</b> | <b>ATV320 U07M2C</b> | <b>ATV320 U11M2C</b> | <b>ATV320 U15M2C</b> | <b>ATV320 U22M2C</b> |

## ATV320 drives with compact control block and three-phase supply voltage 380...500 V 50/60 Hz

|                                   |                                    |                      |                      |                      |                      |                      |                      |                      |                      |
|-----------------------------------|------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Motor</b>                      | Power indicated on plate in kW     | 0.37                 | 0.55                 | 0.75                 | 1.1                  | 1.5                  | 2.2                  | 3                    | 4                    |
|                                   | Power indicated on plate in HP     | 0.5                  | 0.75                 | 1                    | 1.5                  | 2                    | 3                    | 4                    | 5                    |
| <b>Altivar 320</b>                | Max. continuous output current (1) | 1.5                  | 1.9                  | 2.3                  | 3                    | 4.1                  | 5.5                  | 7.1                  | 9.5                  |
| <b>Dimensions: W x H x D (mm)</b> |                                    | 105 x 143 x 158      |                      |                      |                      |                      | 140 x 184 x 158      |                      |                      |
| <b>Reference</b>                  |                                    | <b>ATV320 U04N4C</b> | <b>ATV320 U06N4C</b> | <b>ATV320 U07N4C</b> | <b>ATV320 U11N4C</b> | <b>ATV320 U15N4C</b> | <b>ATV320 U22N4C</b> | <b>ATV320 U30N4C</b> | <b>ATV320 U40N4C</b> |

|                                   |                                    |                      |                      |                      |                      |
|-----------------------------------|------------------------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Motor</b>                      | Power indicated on plate in kW     | 5.5                  | 7.5                  | 11                   | 15                   |
|                                   | Power indicated on plate in HP     | 7.5                  | 10                   | 15                   | 20                   |
| <b>Altivar 320</b>                | Max. continuous output current (1) | 14.3                 | 17                   | 27.7                 | 33                   |
| <b>Dimensions: W x H x D (mm)</b> |                                    | 150 x 232 x 178      |                      | 180 x 330 x 198      |                      |
| <b>Reference</b>                  |                                    | <b>ATV320 U55N4C</b> | <b>ATV320 U75N4C</b> | <b>ATV320 D11N4C</b> | <b>ATV320 D15N4C</b> |

## ATV320 drives with book control block and single-phase supply voltage 200...240 V 50/60 Hz

|                                   |                                    |                      |                      |                      |                      |                      |                      |                      |
|-----------------------------------|------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Motor</b>                      | Power indicated on plate in kW     | 0.18                 | 0.37                 | 0.55                 | 0.75                 | 1.1                  | 1.5                  | 2.2                  |
|                                   | Power indicated on plate in HP     | 0.25                 | 0.5                  | 0.75                 | 1                    | 1.5                  | 2                    | 3                    |
| <b>Altivar 320</b>                | Max. continuous output current (1) | 1.5                  | 3.3                  | 3.7                  | 4.8                  | 6.9                  | 8                    | 11                   |
| <b>Dimensions: W x H x D (mm)</b> |                                    | 45 x 325 x 245       |                      |                      |                      | 60 x 325 x 245       |                      |                      |
| <b>Reference</b>                  |                                    | <b>ATV320 U02M2B</b> | <b>ATV320 U04M2B</b> | <b>ATV320 U06M2B</b> | <b>ATV320 U07M2B</b> | <b>ATV320 U11M2B</b> | <b>ATV320 U15M2B</b> | <b>ATV320 U22M2B</b> |

## ATV320 drives with book control block and three-phase supply voltage 380...500 V 50/60 Hz

|                                   |                                    |                      |                      |                      |                      |                      |                      |                      |                      |
|-----------------------------------|------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Motor</b>                      | Power indicated on plate in kW     | 0.37                 | 0.55                 | 0.75                 | 1.1                  | 1.5                  | 2.2                  | 3                    | 4                    |
|                                   | Power indicated on plate in HP     | 0.5                  | 0.75                 | 1                    | 1.5                  | 2                    | 3                    | 4                    | 5                    |
| <b>Altivar 320</b>                | Max. continuous output current (1) | 1.5                  | 1.9                  | 2.3                  | 3                    | 4.1                  | 5.5                  | 7.1                  | 9.5                  |
| <b>Dimensions: W x H x D (mm)</b> |                                    | 45 x 325 x 245       |                      |                      |                      |                      | 60 x 325 x 245       |                      |                      |
| <b>Reference</b>                  |                                    | <b>ATV320 U04N4B</b> | <b>ATV320 U06N4B</b> | <b>ATV320 U07N4B</b> | <b>ATV320 U11N4B</b> | <b>ATV320 U15N4B</b> | <b>ATV320 U22N4B</b> | <b>ATV320 U30N4B</b> | <b>ATV320 U40N4B</b> |

|                                   |                                    |                      |                      |                      |                      |
|-----------------------------------|------------------------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Motor</b>                      | Power indicated on plate in kW     | 5.5                  | 7.5                  | 11                   | 15                   |
|                                   | Power indicated on plate in HP     | 7.5                  | 10                   | 15                   | 20                   |
| <b>Altivar 320</b>                | Max. continuous output current (1) | 14.3                 | 17                   | 27.7                 | 33                   |
| <b>Dimensions: W x H x D (mm)</b> |                                    | 150 x 232 x 232      |                      | 180 x 330 x 232      |                      |
| <b>Reference</b>                  |                                    | <b>ATV320 U55N4B</b> | <b>ATV320 U75N4B</b> | <b>ATV320 D11N4B</b> | <b>ATV320 D15N4B</b> |

## 2 Altivar with high IP enclosure and single-phase supply voltage: 200...240 V 50/60Hz

|                                       |                                    |                         |                         |                         |                         |                         |                         |                         |
|---------------------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Motor</b>                          | Power indicated on plate in kW     | 0.18                    | 0.37                    | 0.55                    | 0.75                    | 1.1                     | 1.5                     | 2.2                     |
|                                       | Power indicated on plate in HP     | 0.25                    | 0.5                     | 0.75                    | 1                       | 1.5                     | 2                       | 3                       |
| <b>Altivar 320</b>                    | Max. continuous output current (1) | 1.5                     | 3.3                     | 3.7                     | 4.8                     | 6.9                     | 8                       | 11                      |
| <b>Dimensions: W x H x D (mm) (2)</b> |                                    | 250 x 340 x 182         |                         |                         |                         | 250 x 340 x 235         |                         |                         |
| <b>Reference</b>                      |                                    | <b>ATV320 U02M2W(S)</b> | <b>ATV320 U04M2W(S)</b> | <b>ATV320 U06M2W(S)</b> | <b>ATV320 U07M2W(S)</b> | <b>ATV320 U11M2W(S)</b> | <b>ATV320 U15M2W(S)</b> | <b>ATV320 U22M2W(S)</b> |

## Altivar with high IP enclosure and three-phase supply voltage 380...500 V 50/60 Hz

|                                       |                                    |                         |                         |                         |                         |                         |                         |                         |                         |
|---------------------------------------|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Motor</b>                          | Power indicated on plate in kW     | 0.37                    | 0.55                    | 0.75                    | 1.1                     | 1.5                     | 2.2                     | 3                       | 4                       |
|                                       | Power indicated on plate in HP     | 0.5                     | 0.75                    | 1                       | 1.5                     | 2                       | 3                       | 4                       | 5                       |
| <b>Altivar 320</b>                    | Max. continuous output current (1) | 1.5                     | 1.9                     | 2.3                     | 3                       | 4.1                     | 5.5                     | 7.1                     | 9.5                     |
| <b>Dimensions: W x H x D (mm) (2)</b> |                                    | 250 x 340 x 200         |                         |                         |                         |                         | 250 x 340 x 235         |                         |                         |
| <b>Reference</b>                      |                                    | <b>ATV320 U04N4W(S)</b> | <b>ATV320 U06N4W(S)</b> | <b>ATV320 U07N4W(S)</b> | <b>ATV320 U11N4W(S)</b> | <b>ATV320 U15N4W(S)</b> | <b>ATV320 U15M2W(S)</b> | <b>ATV320 U30N4W(S)</b> | <b>ATV320 U40N4W(S)</b> |

|                                       |                                    |                         |                         |
|---------------------------------------|------------------------------------|-------------------------|-------------------------|
| <b>Motor</b>                          | Power indicated on plate in kW     | 5.5                     | 7.5                     |
|                                       | Power indicated on plate in HP     | 7.5                     | 10                      |
| <b>Altivar 320</b>                    | Max. continuous output current (1) | 14.3                    | 17                      |
| <b>Dimensions: W x H x D (mm) (2)</b> |                                    | 320 x 521 x 335         |                         |
| <b>Reference</b>                      |                                    | <b>ATV320 U55N4W(S)</b> | <b>ATV320 U75N4W(S)</b> |

**Note:** Altivar Machine ATV320 variable speed drives are designed for 3-phase synchronous and asynchronous motors. ATV320 drives are supplied with braking chopper as standard. For braking resistor selection, please refer to the product catalog on our website [www.se.com](http://www.se.com).

(1) Altivar Machine ATV320 variable speed drives can supply a transient output current of  $1.5 \times I_n$  for 60 s.

(2) To obtain the new references for ATV320 IP66 drives, replace the last character with "W" (without switch) or "WS" (with switch).





## 06. Harmony interface, measurement and control relays



# Zelio Logic smart relays



## Compact smart relays and compact “discovery” packs

| AC supply voltage              |                 | 24 VAC    |           | 48 VAC        | 100...240 VAC |               |               |
|--------------------------------|-----------------|-----------|-----------|---------------|---------------|---------------|---------------|
| Number of inputs/outputs       |                 | 12        | 20        | 20            | 10            | 12            | 20            |
| Number of discrete inputs      |                 | 8         | 12        | 12            | 6             | 8             | 12            |
| Number of outputs              |                 | 4 relay   | 8 relay   | 8 relay       | 4 relay       | 4 relay       | 8 relay       |
| Clock                          |                 | Yes       | Yes       | No            | No            | Yes           | No            |
| Compact smart relays           | With display    | SR2B121B  | SR2B201B  | SR2A201E      | SR2A101FU (1) | SR2B121FU     | SR2A201FU (1) |
|                                | Without display | SR2E121B  | SR2E201B  | —             | SR2D101FU (1) | SR2E121FU     | SR2D201FU (1) |
| Compact discovery packs (2)    |                 | —         | —         | —             | —             | SR2PACKFU     | SR2PACK2FU    |
| DC supply voltage              |                 | 12 VDC    |           |               | 24 VDC        |               |               |
| Number of inputs/outputs       |                 | 12        | 20        | 10            | 12            | 20            | 20            |
| Number of discrete inputs      |                 | 8         | 12        | 6             | 8             | 12            | 12            |
| including 0-10 V analog inputs |                 | 4         | 6         | —             | 4             | 2             | 6             |
| Number of outputs              |                 | 4 relay   | 8 relay   | 4 relay       | 4             | 8 relay       | 8             |
| Clock                          |                 | Yes       | Yes       | No            | Yes           | No            | Yes           |
| Compact smart relays           | With display    | SR2B121JD | SR2B201JD | SR2A101BD (1) | SR2B12●BD (3) | SR2A201BD (1) | SR2B20●BD (3) |
|                                | Without display | —         | —         | SR2D101BD (1) | SR2E121BD     | SR2D201BD (1) | SR2E201BD     |
| Compact discovery packs (2)    |                 | —         | —         | —             | SR2PACKBD     | —             | SR2PACK2BD    |

## Modular smart relays (4) with display and modular “discovery” packs

| Supply voltage                 |  | 24 VAC   |          | 100...240 VAC |            | 12 VDC    | 24 VDC        |
|--------------------------------|--|----------|----------|---------------|------------|-----------|---------------|
| Number of inputs/outputs       |  | 10       | 26       | 10            | 26         | 26        | 26            |
| Number of discrete inputs      |  | 6        | 16       | 6             | 16         | 16        | 16            |
| including 0-10 V analog inputs |  | —        | —        | —             | —          | 6         | 4             |
| Number of outputs              |  | 4 relay  | 10 relay | 4 relay       | 10 relay   | 10 relay  | 4             |
| Clock                          |  | Yes      | Yes      | Yes           | Yes        | Yes       | Yes           |
| Modular smart relays           |  | SR3B101B | SR3B261B | SR3B101FU     | SR3B261FU  | SR3B261JD | SR3B10●BD (5) |
| Modular discovery packs (2)    |  | —        | —        | SR3PACKFU     | SR3PACK2FU | —         | SR3PACKBD     |



## Extension modules for Zelio Logic SR3B●●●●●● (6)

| Type of module            |               | Communication modules |            | Discrete I/O modules |            |            | Analog I/O modules             |
|---------------------------|---------------|-----------------------|------------|----------------------|------------|------------|--------------------------------|
| Network type              |               | Modbus                | Ethernet   | —                    | —          | —          | —                              |
| Number of inputs/outputs  |               | —                     | —          | 6                    | 10         | 14         | 4                              |
| Number of discrete inputs |               | —                     | —          | 4                    | 6          | 8          | 2 (0...10 V, 0...20 mA, PT100) |
| Number of outputs         |               | —                     | —          | 2 relay              | 4 relay    | 6 relay    | 2 (0...10 V)                   |
| References                | 24 VAC        | —                     | —          | SR3XT61B             | SR3XT101B  | SR3XT141B  | —                              |
|                           | 100...240 VAC | —                     | —          | SR3XT61FU            | SR3XT101FU | SR3XT141FU | —                              |
|                           | 12 VDC        | —                     | —          | SR3XT61JD            | SR3XT101JD | SR3XT141JD | —                              |
|                           | 24 VDC        | SR3MBU01BD            | SR3NET01BD | SR3XT61BD            | SR3XT101BD | SR3XT141BD | SR3XT43BD                      |

## Zelio Soft 2 software and accessories

| Type of device |  | Zelio Soft multilingual programming software                     |  | Connecting cables     |                    | Wireless connection | Back-up memory |
|----------------|--|------------------------------------------------------------------|--|-----------------------|--------------------|---------------------|----------------|
| Description    |  | Free downloadable file on <a href="http://se.com">se.com</a> (7) |  | Serial PC/Smart relay | USB PC/Smart relay | Bluetooth interface | EEPROM         |
| References     |  | ESR2SFT01                                                        |  | SR2CBL01              | SR2USB01           | —                   | SR2MEM02       |

(1) Programming on smart relay in LADDER language only.

(2) The packs are composed of one smart relay with display and relay output, and one SR2USB01 connecting cable.

(3) Replace the ● with the number 1 to order a smart relay with relay output or the number 2 for a smart relay with transistor output (e.g. SR2B121BD).

(4) The modular base can be equipped with one I/O extension module. The 24 VDC modular base can be equipped with one communication module and/or one I/O extension module.

(5) Replace the ● with the number 1 to order a smart relay with relay output or the number 2 for a smart relay with transistor output (e.g. SR3B101BD).

(6) The power supply for the extension modules is provided via the Zelio Logic modular relays.

(7) Programming software for Zelio Logic is freely available on [se.com](http://se.com). This software is compatible with Windows 10.



# Harmony Relay RXG and RSB electromechanical relays



## RXG interface relays

| Contact              |         | 1CO     |         |         |                      |                      | 2CO     |         |         |                      |                      |
|----------------------|---------|---------|---------|---------|----------------------|----------------------|---------|---------|---------|----------------------|----------------------|
| Current              |         | 10A     |         |         |                      |                      | 5A      |         |         |                      |                      |
| Lockable Test Button |         | Yes     | Yes     | No      | No                   | No                   | Yes     | Yes     | No      | No                   | No                   |
| LED indicator        |         | No      | Yes     | Yes     | Yes                  | No                   | No      | Yes     | Yes     | Yes                  | No                   |
| Mechanical indicator |         | Yes     | Yes     | Yes     | No                   | No                   | Yes     | Yes     | Yes     | No                   | No                   |
| Relay                | 6 VDC   | –       | RXG12RD | –       | –                    | –                    | RXG21RD | –       | –       | –                    | –                    |
|                      | 12 VDC  | –       | RXG12JD | RXG13JD | –                    | –                    | RXG21JD | RXG22JD | –       | –                    | –                    |
|                      | 24 VDC  | RXG11BD | RXG12BD | RXG13BD | RXG16BD <sup>2</sup> | RXG18BD <sup>2</sup> | RXG21BD | RXG22BD | RXG23BD | RXG26BD <sup>2</sup> | RXG28BD <sup>2</sup> |
|                      | 48 VDC  | –       | RXG12ED | –       | –                    | –                    | –       | RXG22ED | –       | –                    | –                    |
|                      | 110 VDC | –       | RXG12FD | –       | –                    | –                    | –       | RXG22FD | –       | –                    | –                    |
|                      | 24 VAC  | RXG11B7 | RXG12B7 | RXG13B7 | –                    | –                    | RXG21B7 | RXG22B7 | RXG23B7 | –                    | –                    |
|                      | 48 VAC  | –       | RXG12E7 | –       | –                    | –                    | RXG21E7 | RXG22E7 | RXG23E7 | –                    | –                    |
|                      | 120 VAC | RXG11F7 | RXG12F7 | RXG13F7 | –                    | –                    | RXG21F7 | RXG22F7 | RXG23F7 | –                    | –                    |
|                      | 220 VAC | –       | –       | –       | –                    | –                    | –       | RXG22M7 | RXG23M7 | –                    | –                    |
|                      | 230 VAC | RXG11P7 | RXG12P7 | RXG13P7 | RXG16P7 <sup>2</sup> | RXG18P7 <sup>2</sup> | RXG21P7 | RXG22P7 | RXG23P7 | RXG26P7 <sup>2</sup> | RXG28P7 <sup>2</sup> |

## RGZ sockets with built-in clamp

| Screw Connector, Separate Terminal |  | RGZE1S35M            |  |  | RGZE1S48M            |  |  |
|------------------------------------|--|----------------------|--|--|----------------------|--|--|
| Push-in, Separate Terminal         |  | RGZE05P              |  |  | RGZE08P              |  |  |
| Screw Clamp, Mixed Terminal        |  | RGZE05E <sup>1</sup> |  |  | RGZE08E <sup>1</sup> |  |  |

## Pre-assembled RXG interface relays with screw connector sockets, clamp and protection module (Diode for DC coil/ Varistor for AC coil)

| 24 VDC  |  |  | RXG12BDPV | RXG13BDPV |  |  | RXG21BDPV | RXG22BDPV | RXG23BDPV |  |  |
|---------|--|--|-----------|-----------|--|--|-----------|-----------|-----------|--|--|
| 24 VAC  |  |  | RXG12B7PV |           |  |  | RXG21B7PV | RXG22B7PV |           |  |  |
| 230 VAC |  |  | RXG12P7PV | RXG13P7PV |  |  | RXG21P7PV | RXG22P7PV | RXG23P7PV |  |  |

**Note:** (1) Protection Module not applicable on RGZE0\*E sockets

(2) RXG\*6\*\* and RXG\*8\*\* relays comply to UL Recognised, CE, EAC, RoHS, China RoHS, REACH

6

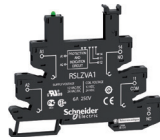


## RSB interface relay

| Contact                 |         | 1 CO         | 1 CO         | 2 CO         |
|-------------------------|---------|--------------|--------------|--------------|
| Current                 |         | 12 A         | 16 A         | 8 A          |
| Connection              |         | PCB Type     |              |              |
| Control Circuit Voltage | 12 VDC  | RSB1A120JD   | RSB1A160JD   | RSB2A080JD   |
|                         | 24 VDC  | RSB1A120BD   | RSB1A160BD   | RSB2A080BD   |
|                         | 48 VDC  | —            | —            | RSB2A080ED   |
|                         | 110 VDC | —            | —            | RSB2A080FD   |
|                         | 24 VAC  | RSB1A120B7   | RSB1A160B7   | RSB2A080B7   |
|                         | 48 VAC  | —            | —            | RSB2A080E7   |
|                         | 120 VAC | RSB1A120F7   | RSB1A160F7   | RSB2A080F7   |
|                         | 220 VAC | RSB1A120M7   | RSB1A160M7   | RSB2A080M7   |
|                         | 230 VAC | RSB1A120P7   | RSB1A160P7   | RSB2A080P7   |
|                         | 240 VAC | RSB1A120U7   | —            | —            |
| Screw connector socket  |         | RSZE1S35M    | RSZE1S48M    | RSZE1S48M    |
| Push-in socket          |         | RSZE05P      | RSZE08P      | RSZE08P      |
| Pre-mounted product     | 12 VDC  | —            | —            | RSB2A080JDPV |
|                         | 24 VDC  | RSB1A120BDPV | RSB1A160BDPV | RSB2A080BDPV |
|                         | 24 VAC  | RSB1A120B7PV | —            | RSB2A080B7PV |
|                         | 120 VAC | —            | —            | RSB2A080F7PV |
|                         | 220 VAC | —            | —            | —            |
|                         | 230 VAC | RSB1A120P7PV | RSB1A160P7PV | RSB2A080P7PV |

**Note:** RSB pre-mounted version includes: Relay + Screw connector socket + Protection Module + Clamp + Label, sold in lots of 30 units.

# Harmony Relay RSL, RXM and RPM electromechanical relays



## RSL interface relays

| Type                          |             | RSL relays     |                 | Sockets for RSL relays |                 | Pre-assembled relays/sockets |                 |
|-------------------------------|-------------|----------------|-----------------|------------------------|-----------------|------------------------------|-----------------|
| Contact                       |             | 1 CO           |                 | -                      |                 | 1 CO                         |                 |
| Current                       |             | 6 A - standard | 6 A - low level | -                      |                 | 6A - Standard                |                 |
| Connection                    |             | PCB pins       |                 | Screw connector        | Spring terminal | Screw connector              | Spring terminal |
| LED display                   |             | Without LED    |                 | With LED               |                 | With LED                     |                 |
| Control<br>Circuit<br>Voltage | 12 VAC/VDC  | RSL1AB4JD      | RSL1GB4JD       | RSLZVA1                | RSLZRA1         | RSL1PVJU                     | RSL1PRJU        |
|                               | 24 VAC/VDC  | RSL1AB4BD      | RSL1GB4BD       | RSLZVA1                | RSLZRA1         | RSL1PVBU                     | RSL1PRBU        |
|                               | 48 VAC/VDC  | RSL1AB4ED      | RSL1GB4ED       | RSLZVA2                | RSLZRA2         | RSL1PVEU                     | RSL1PREU        |
|                               | 60 VAC/VDC  | RSL1AB4ND      | -               | RSLZVA2                | RSLZRA2         | -                            |                 |
|                               | 110 VAC/VDC | -              |                 | RSLZVA3                | RSLZRA3         | RSL1PVFU                     | RSL1PRFU        |
|                               | 230 VAC/VDC | -              |                 | RSLZVA4                | RSLZRA4         | RSL1PVPU                     | RSL1PRPU        |



## RXM•AB miniature relays

| Type                          |         | RXM●AB relays with test button |                  |             |           |                  |                  |
|-------------------------------|---------|--------------------------------|------------------|-------------|-----------|------------------|------------------|
| Contact                       |         | 2 CO                           |                  | 3 CO        |           | 4 CO             |                  |
| Current                       |         | 12 A                           |                  | 10 A        |           | 6 A              |                  |
| Connection                    |         | Flat pins (Faston type)        |                  |             |           |                  |                  |
| LED display                   |         | Without LED                    | With LED         | Without LED | With LED  | Without LED      | With LED         |
| Control<br>Circuit<br>Voltage | 12 VDC  | RXM2AB1JD                      | RXM2AB2JD        | RXM3AB1JD   | RXM3AB2JD | RXM4AB1JD        | RXM4AB2JD        |
|                               | 24 VDC  | RXM2AB1BD                      | RXM2AB2BD        | RXM3AB1BD   | RXM3AB2BD | RXM4AB1BD        | RXM4AB2BD        |
|                               | 48 VDC  | RXM2AB1ED                      | RXM2AB2ED        | RXM3AB1ED   | —         | RXM4AB1ED        | RXM4AB2ED        |
|                               | 60 VDC  | RXM2AB1ND                      |                  |             |           |                  | RXM4AB2ND        |
|                               | 110 VDC | RXM2AB1FD                      | RXM2AB2FD        | RXM3AB1FD   | RXM3AB2FD | RXM4AB1FD        | RXM4AB2FD        |
|                               | 220 VDC |                                | —                |             | —         | RXM4AB1MD        | —                |
|                               | 24 VAC  | RXM2AB1B7                      | RXM2AB2B7        | RXM3AB1B7   | RXM3AB2B7 | RXM4AB1B7        | RXM4AB2B7        |
|                               | 48 VAC  | RXM2AB1E7                      | RXM2AB2E7        | RXM3AB1E7   | RXM3AB2E7 | RXM4AB1E7        | RXM4AB2E7        |
|                               | 120 VAC | RXM2AB1F7                      | RXM2AB2F7        | RXM3AB1F7   | RXM3AB2F7 | RXM4AB1F7        | RXM4AB2F7        |
|                               | 230 VAC | RXM2AB1P7                      | RXM2AB2P7        | RXM3AB1P7   | RXM3AB2P7 | RXM4AB1P7        | RXM4AB2P7        |
|                               | 240 VDC | —                              |                  | —           |           | RXM4AB1U7        | —                |
| Screw clamp socket (1)        |         | RXZE2M114                      |                  | —           |           | RXZE2M114        |                  |
| Screw connector socket (1)    |         | RXZE2M114M                     |                  | —           |           | RXZE2M114M       |                  |
| Screw connector socket (2)    |         | RXZE2S108M                     |                  | RXZE2S111M  |           | RXZE2S114M       |                  |
| Push-in socket                |         | RXZE14P                        |                  | RXZE14P     |           | RXZE14P          |                  |
| Pre-<br>mounted<br>product    | 24 VDC  | —                              | RXM2AB2BDPVM (3) | —           |           | RXM4AB1BDPVM (3) | RXM4AB2BDPVM (3) |
|                               | 24 VAC  | —                              | RXM2AB2B7PVM (3) | —           |           | RXM4AB1B7PVM (3) | RXM4AB2B7PVM (3) |
|                               | 230 VAC | —                              | RXM2AB2P7PVM (3) | —           |           | RXM4AB1P7PVM (3) | RXM4AB2P7PVM (3) |
|                               | 24 VDC  | —                              | RXM2AB2BDPVS (4) | —           |           | RXM4AB1BDPVS (4) | RXM4AB2BDPVS (4) |
|                               | 24 VAC  | —                              | RXM2AB2B7PVS (4) | —           |           | RXM4AB1B7PVS (4) | RXM4AB2B7PVS (4) |
|                               | 230 VAC | —                              | RXM2AB2P7PVS (4) | —           |           | RXM4AB1P7PVS (4) | RXM4AB2P7PVS (4) |



## RPM power relays (15 A)

| Type                          |         | RPM relays with test button |          |             |          |             |          |             |          |
|-------------------------------|---------|-----------------------------|----------|-------------|----------|-------------|----------|-------------|----------|
| Contact                       |         | 1 CO                        |          | 2 CO        |          | 3 CO        |          | 4 CO        |          |
| Current                       |         | 15 A                        |          |             |          |             |          |             |          |
| Connection                    |         | Flat pins (Faston type)     |          |             |          |             |          |             |          |
| LED display                   |         | Without LED                 | With LED | Without LED | With LED | Without LED | With LED | Without LED | With LED |
| Control<br>Circuit<br>Voltage | 12 VDC  | –                           | RPM12JD  | RPM21JD     | RPM22JD  | –           | –        | –           | –        |
|                               | 24 VDC  | RPM11BD                     | RPM12BD  | RPM21BD     | RPM22BD  | –           | RPM32BD  | RPM41BD     | RPM42BD  |
|                               | 48 VDC  | –                           | –        | –           | RPM22ED  | –           | –        | –           | RPM42ED  |
|                               | 110 VDC | –                           | –        | –           | –        | –           | –        | –           | RPM42FD  |
|                               | 24 VAC  | RPM11B7                     | RPM12B7  | RPM21B7     | RPM22B7  | –           | RPM32B7  | –           | RPM42B7  |
|                               | 48 VAC  | –                           | –        | –           | –        | –           | –        | –           | –        |
|                               | 120 VAC | RPM11F7                     | RPM12F7  | RPM21F7     | RPM22F7  | RPM31F7     | RPM32F7  | RPM41F7     | RPM42F7  |
| 230 VAC                       | –       | RPM12P7                     | RPM21P7  | RPM22P7     | –        | RPM32P7     | RPM41P7  | RPM42P7     |          |
| Screw connector socket        |         | RPZF1                       |          | RPZF2       |          | RPZF3       |          | RPZF4       |          |

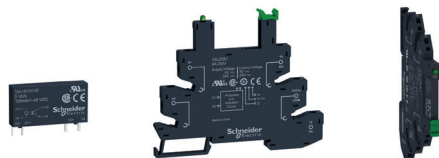
(1) With mixed contacts.

(2) With separate contacts.

(3) RXM pre-mounted version includes: Relay + Screw connector socket (mixed) + Clamp + Label, sold in lots of 30 units.

(4) RXM pre-mounted version includes: Relay + Screw connector socket (seperate, not seperate) + Clamp + Label, sold in lots of 30 units.

# Harmony Relay SSL and SSP solid state relays



## SSL1 Slim Interface Solid State Relays, 1NO contact (DC switching)

|                 |             |                                              |                                                |                                              |                                                |
|-----------------|-------------|----------------------------------------------|------------------------------------------------|----------------------------------------------|------------------------------------------------|
| Load current    |             | 0.1 A                                        |                                                | 3.5 A                                        |                                                |
| Load voltage    |             | 1...48 VDC                                   |                                                | 3...30VDC                                    |                                                |
| Type            |             | Relays and sockets for customer assembly (1) | Pre-assembled with relay mounted on socket (2) | Relays and sockets for customer assembly (1) | Pre-assembled with relay mounted on socket (2) |
| Control Voltage | 3...12 VDC  | SSL1D101JD                                   | –                                              | SSL1D03JD                                    | SSL1D03JDPV<br>SSL1D03JDPR                     |
|                 | 15...30 VDC | SSL1D101BD                                   | SSL1D101BDPV                                   | SSL1D03BD                                    | SSL1D03BDPV<br>SSL1D03BDPR                     |

## SSL1 Slim Interface Solid State Relays, 1NO contact (Random switching, Zero voltage switching)

|                 |             |                                              |                                                |                                              |                                                |
|-----------------|-------------|----------------------------------------------|------------------------------------------------|----------------------------------------------|------------------------------------------------|
| Load current    |             | 2 A                                          |                                                |                                              |                                                |
| Load voltage    |             | 24...280 VAC                                 |                                                |                                              |                                                |
| Switching       |             | Random switching                             |                                                | Zero voltage switching                       |                                                |
| Type            |             | Relays and sockets for customer assembly (1) | Pre-assembled with relay mounted on socket (2) | Relays and sockets for customer assembly (1) | Pre-assembled with relay mounted on socket (2) |
| Control Voltage | 3...12 VDC  | –                                            | –                                              | SSL1A12JD                                    | SSL1A12JDPV<br>–                               |
|                 | 15...30 VDC | SSL1A12BDR                                   | SSL1A12BDPV                                    | SSL1A12BD                                    | SSL1A12BDPV<br>SSL1A12BDPR                     |

## SSP1 1-phase Panel Mount Solid State Relays, 1NO contact (DC switching)

|                 |      |              |  |  |  |
|-----------------|------|--------------|--|--|--|
| Control voltage |      | 3.5...32 VDC |  |  |  |
| Load voltage    |      | 1...150 VDC  |  |  |  |
| Load current    | 12 A | SSP1D412BDT  |  |  |  |
|                 | 25 A | SSP1D425BDT  |  |  |  |
|                 | 40 A | SSP1D440BDT  |  |  |  |

## SSP1 1-phase Panel Mount Solid State Relays, 1NO contact (Zero voltage switching)

|                 |       |                 |                  |              |              |
|-----------------|-------|-----------------|------------------|--------------|--------------|
| Control voltage |       | 3...32 VDC      | 4...32 VDC       | 90...280 VAC |              |
| Load voltage    |       | 24...300 VAC    | 48...660 VAC     | 24...300 VAC | 48...660 VAC |
| Load current    | 10 A  | SSP1A110BDT     | –                | SSP1A110M7T  | –            |
|                 | 25 A  | SSP1A125BDT (3) | –                | SSP1A125M7T  | –            |
|                 | 50 A  | SSP1A150BDT (3) | SSP1A450BDT (3)  | SSP1A150M7T  | –            |
|                 | 75 A  | SSP1A175BDT     | SSP1A475BDT (3)  | –            | SSP1A475M7T  |
|                 | 90 A  | –               | SSP1A490BDT (3)  | –            | SSP1A490M7T  |
|                 | 125 A | –               | SSP1A4125BDT (3) | –            | SSP1A4125M7T |

## SSP3 3-phase Panel Mount Solid State Relays, 3NO contact (Zero voltage switching)

|                 |      |              |             |              |              |
|-----------------|------|--------------|-------------|--------------|--------------|
| Load voltage    |      | 42...660 VAC |             |              |              |
| Control voltage |      | 4...32 VDC   | 18...36 VAC | 90...140 VAC | 90...280 VAC |
| Load current    | 25 A | SSP3A225BDT  | –           | –            | SSP3A225P7T  |
|                 | 50 A | SSP3A250BDT  | SSP3A250B7T | –            | SSP3A250P7T  |

## SSP3 3-phase Panel Mount Solid State Relays, 3NO contact (Random switching)

|                 |      |              |             |              |              |
|-----------------|------|--------------|-------------|--------------|--------------|
| Load voltage    |      | 42...660 VAC |             |              |              |
| Control voltage |      | 4...32 VDC   | 18...36 VAC | 90...140 VAC | 90...280 VAC |
| Load current    | 25 A | SSP3A225BDRT | –           | –            | –            |
|                 | 50 A | SSP3A250BDRT | –           | –            | SSP3A250P7RT |

(1) To be used together with either screw connector socket (SSLZVA1) or spring terminal socket (SSLZRA1), sold in lots of 10 units.

(2) SSL●PV (relay with screw connector socket; SSL1●PR (relay with spring terminal socket), sold in lots of 30 units.

(3) Available in smart diagnostic version with built-in visual indicator and alarm output to enable quick response to unexpected results and correct monitoring of SSR operation; identified by adding S at end of reference (etc. SSP1A125BDS).



# Harmony Relay SSM and SSD solid state relays



## SSM modular DIN rail solid state relays (DC switching)

|                 |            |            |             |            |             |
|-----------------|------------|------------|-------------|------------|-------------|
| Contact         |            | 1 NO       |             |            |             |
| Load current    |            | 6 A        |             | 12 A       |             |
| Load voltage    |            | 1...60 VDC | 1...100 VDC | 1...60 VDC | 1...100 VDC |
|                 |            | 12 mm      |             | 18 mm      |             |
| Control Voltage | 4...32 VDC | SSM1D26BD  | SSM1D36BD   | SSM1D212BD | SSM1D312BD  |

## SSM modular DIN rail solid state relays (Random switching)

|                 |               |              |              |              |              |              |              |
|-----------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Contact         |               | 1 NO         |              |              |              | 2 NO         |              |
| Load current    |               | 6 A          |              | 12 A         |              | 6 A          |              |
| Load voltage    |               | 24...280 VAC | 48...600 VAC | 24...280 VAC | 48...600 VAC | 24...280 VAC | 48...600 VAC |
|                 |               | 12 mm        |              |              |              | 18 mm        |              |
| Control Voltage | 4...32 VDC    | SSM1A16BDR   | SSM1A36BDR   | SSM1A112BDR  | SSM1A312BDR  | SSM2A16BDR   | –            |
|                 | 18...36 VAC   | –            | –            | –            | –            | –            | –            |
|                 | 90...140 VAC  | –            | –            | –            | –            | –            | –            |
|                 | 200...265 VAC | –            | –            | –            | –            | –            | –            |

## SSM modular DIN rail solid state relays (Zero voltage switching)

|                 |               |              |              |              |              |
|-----------------|---------------|--------------|--------------|--------------|--------------|
| Contact         |               | 1 NO         |              |              |              |
| Load current    |               | 6 A          |              | 12 A         |              |
| Load voltage    |               | 24...280 VAC | 48...600 VAC | 24...280 VAC | 48...600 VAC |
| Control Voltage | 4...32 VDC    | SSM1A16BD    | SSM1A36BD    | SSM1A112BD   | SSM1A312BD   |
|                 | 18...36 VDC   | SSM1A16B7    | –            | SSM1A112B7   | –            |
|                 | 90...140 VAC  | SSM1A16F7    | –            | –            | –            |
|                 | 200...265 VAC | –            | –            | SSM1A112P7   | –            |



## SSD modular DIN rail solid state relays, 1NO contact (Zero voltage switching)

|                    |                     |              |  |  |  |
|--------------------|---------------------|--------------|--|--|--|
| Output voltage     |                     | 48...600 VAC |  |  |  |
|                    |                     | 22.5 mm      |  |  |  |
| Load current       |                     | 20 A         |  |  |  |
| Control voltage    |                     | 4...32 VDC   |  |  |  |
| Configura-<br>tion | Relay               | SSD1A320BDC1 |  |  |  |
|                    | Contact -<br>Screw  | SSD1A320BDC2 |  |  |  |
|                    | Contact -<br>Spring | SSD1A320BDC3 |  |  |  |
|                    |                     |              |  |  |  |

## SSD modular DIN rail solid state relays, 1NO contact (Random switching)

|                    |                     |              |                 |            |                 |            |                 |              |                 |
|--------------------|---------------------|--------------|-----------------|------------|-----------------|------------|-----------------|--------------|-----------------|
| Output voltage     |                     | 48...600 VAC |                 |            |                 |            |                 |              |                 |
|                    |                     | 22.5 mm      |                 |            |                 | 45 mm      |                 |              |                 |
| Load current       |                     | 20 A         |                 | 35 A       |                 | 45 A       |                 | 60 A         |                 |
| Control voltage    |                     | 4...32 VDC   | 90...280 VAC/DC | 4...32 VDC | 90...280 VAC/DC | 4...32 VDC | 90...280 VAC/DC | 4...32 VDC   | 90...280 VAC/DC |
| Configura-<br>tion | Relay               | –            | –               | –          | –               | –          | –               | SSD1A360BDC1 | –               |
|                    | Contact -<br>Screw  | –            | –               | –          | –               | –          | –               | –            | –               |
|                    | Contact -<br>Spring | –            | –               | –          | –               | –          | –               | –            | –               |
|                    |                     | –            | –               | –          | –               | –          | –               | –            | –               |

## SSD modular DIN rail solid state relays, 1NO contact (DC switching)

|                     |  |              |  |              |  |
|---------------------|--|--------------|--|--------------|--|
| Output voltage      |  | 1...200 VDC  |  |              |  |
| Control voltage     |  | 4...32 VDC   |  |              |  |
| Frontal width       |  | 22.5 mm      |  |              |  |
| Load current        |  | 20 A         |  | 30 A         |  |
| Relay Configuration |  | SSD1D520BDC1 |  | SSD1D530BDC1 |  |

# Harmony Control and Monitoring Relays



## 3-phase Monitoring Relay, 1 output

|                             |                                      |                 |                 |                 |                 |                 |     |
|-----------------------------|--------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----|
| <b>Power Supply</b>         | Self-powered (1)                     |                 |                 |                 |                 |                 |     |
| <b>Monitoring functions</b> | Phase Loss                           | Yes             | -               | Yes             | Yes             | Yes             | Yes |
|                             | Phase loss with voltage regeneration | -               | Yes             | -               | -               | -               | -   |
|                             | Phase Sequence                       | Yes             | Yes             | Yes             | Yes             | Yes             | Yes |
|                             | Asymmetry                            | -               | -               | Yes             | -               | Yes             | -   |
|                             | Overvoltage                          | -               | -               | -               | -               | Yes             | -   |
|                             | Undervoltage                         | -               | -               | -               | Yes             | Yes             | -   |
|                             | Overcurrent and Undercurrent         | -               | -               | -               | -               | -               | Yes |
| <b>Measuring Range</b>      | 208...480 VAC                        |                 |                 |                 |                 |                 |     |
| <b>Product References</b>   | <b>RM17TG00</b>                      | <b>RM17TT00</b> | <b>RM17TA00</b> | <b>RM17TU00</b> | <b>RM17TE00</b> | <b>RM35BA10</b> |     |

## 3-phase Monitoring Relay, 2 outputs

|                             |                                                                            |                                    |                                    |                                    |                       |                   |                                         |                 |     |
|-----------------------------|----------------------------------------------------------------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------|-------------------|-----------------------------------------|-----------------|-----|
| <b>Power Supply</b>         | Self-powered (1)                                                           |                                    |                                    |                                    |                       |                   |                                         | 24...240 VAC/DC |     |
| <b>Monitoring functions</b> | Phase Loss                                                                 | Yes                                | Yes                                | Yes                                | Yes                   | Yes               | Yes                                     | Yes             | Yes |
|                             | Phase Sequence                                                             | Yes                                | Yes                                | Yes                                | Yes                   | Yes               | -                                       | Yes             | Yes |
|                             | Asymmetry                                                                  | -                                  | Yes                                | -                                  | -                     | Yes               | -                                       | -               | -   |
|                             | Overvoltage                                                                | -                                  | -                                  | -                                  | Yes                   | Yes               | Yes                                     | -               | -   |
|                             | Undervoltage                                                               | -                                  | -                                  | Yes                                | Yes                   | Yes               | Yes                                     | -               | -   |
|                             | Overfrequency                                                              | -                                  | -                                  | -                                  | -                     | Yes               | -                                       | -               | -   |
|                             | Underfrequency                                                             | -                                  | -                                  | -                                  | -                     | Yes               | -                                       | -               | -   |
|                             | Absence of neutral                                                         | -                                  | -                                  | -                                  | -                     | -                 | Yes                                     | -               | -   |
|                             | Motor temperature via PTC probe                                            | -                                  | -                                  | -                                  | -                     | -                 | -                                       | Yes             | -   |
|                             | Elevator Machine room temperature (Over temperature and under temperature) | -                                  | -                                  | -                                  | -                     | -                 | -                                       | -               | Yes |
| <b>Measuring Range</b>      | 208...480 VAC                                                              | 200...240 VAC<br>380...480 VAC     | 200...240 VAC<br>380...480 VAC     | 200...240 VAC<br>380...480 VAC     | 208...480 VAC         | 120...277 VAC     | 208...480 VAC                           | 208...480 VAC   |     |
| <b>Product References</b>   | <b>RM17TG20</b><br><b>RM22TG20</b>                                         | <b>RM22TA31</b><br><b>RM22TA33</b> | <b>RM22TU21</b><br><b>RM22TU23</b> | <b>RM22TR31</b><br><b>RM22TR33</b> | <b>RMNF22TB30 (3)</b> | <b>RM35UB3N30</b> | <b>RM35TM50MW</b><br><b>RM35TM250MW</b> | -               |     |

## 1-phase Voltage Control Relay

|                             |                                                  |                                                          |                                      |                                                             |                                                             |                                                             |                   |                 |                  |
|-----------------------------|--------------------------------------------------|----------------------------------------------------------|--------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-------------------|-----------------|------------------|
| <b>Power Supply</b>         | Self-powered (1)                                 |                                                          |                                      |                                                             | 24...240 VAC/DC                                             |                                                             |                   | 380...415 V AC  | 110...240 VAC/DC |
| <b>Monitoring functions</b> | Undervoltage                                     | Yes                                                      | -                                    | -                                                           | -                                                           | -                                                           | Yes               | Yes             | -                |
|                             | Overvoltage                                      | -                                                        | -                                    | -                                                           | -                                                           | Yes                                                         | Yes               | Yes             | -                |
|                             | Overvoltage or Under-voltage                     | -                                                        | Yes                                  | -                                                           | Yes                                                         | -                                                           | -                 | -               | -                |
|                             | Overvoltage and Under-voltage in window mode (4) | -                                                        | -                                    | Yes                                                         | -                                                           | -                                                           | Yes               | Yes             | Yes              |
| <b>Relay output</b>         | 1                                                | 2                                                        |                                      |                                                             |                                                             |                                                             |                   |                 |                  |
| <b>Measuring Range</b>      | Fixed at 165 VAC                                 | 9...15 VDC<br>65...260 VAC/DC<br>20...80 VAC/DC          | 65...260 VAC/DC<br>20...80 VAC/DC    | 0.05...5 VAC/DC<br>1...100 VAC/DC<br>15...600 VAC/DC        | 0.05...5 VAC/DC<br>1...100 VAC/DC<br>15...500 VAC/DC        | 15...500 VAC/DC                                             |                   |                 | 80...300 VAC/DC  |
| <b>Product References</b>   | -                                                | <b>RM17UAS14</b><br><b>RM17UAS15</b><br><b>RM17UAS16</b> | <b>RM17UBE15</b><br><b>RM17UBE16</b> | <b>RM35UA11MW</b><br><b>RM35UA12MW</b><br><b>RM35UA13MW</b> | <b>RM22UA21MR</b><br><b>RM22UA22MR</b><br><b>RM22UA23MR</b> | <b>RM22UA31MR</b><br><b>RM22UA32MR</b><br><b>RM22UA33MR</b> | <b>RM22UA33MT</b> | <b>RM22UB34</b> |                  |

## 1-phase Current Control Relay

|                             |                                                  |                   |                                        |                                        |                   |     |   |   |   |
|-----------------------------|--------------------------------------------------|-------------------|----------------------------------------|----------------------------------------|-------------------|-----|---|---|---|
| <b>Power Supply</b>         | 24...240 VAC/DC                                  |                   |                                        |                                        | 380...415 VAC     |     |   |   |   |
| <b>Monitoring functions</b> | Undercurrent                                     | -                 | -                                      | -                                      | -                 | -   | - | - | - |
|                             | Overcurrent                                      | Yes               | Yes                                    | -                                      | -                 | -   | - | - | - |
|                             | Overcurrent or Under-current                     | -                 | -                                      | Yes                                    | Yes               | Yes | - | - | - |
|                             | Overcurrent and Under-current in window mode (2) | -                 | -                                      | -                                      | Yes               | Yes | - | - | - |
| <b>Relay output</b>         | 1                                                | 2                 |                                        |                                        |                   |     |   |   |   |
| <b>Measuring Range</b>      | 2...20 A                                         | 4 mA...1 A        | 2...500 mA<br>0.15...15 A              | 4 mA...1 A<br>0.15...15 A              | 0.15...15 A       |     |   |   |   |
| <b>Product References</b>   | <b>RM17JC00MW</b>                                | <b>RM22JA21MR</b> | <b>RM35JA31MW</b><br><b>RM35JA32MW</b> | <b>RM22JA31MR</b><br><b>RM35JA32MR</b> | <b>RM35JA32MT</b> |     |   |   |   |

## Level Control Relay

| Type               | Resistive Probes |                 |                                          | Discrete Sensor |
|--------------------|------------------|-----------------|------------------------------------------|-----------------|
| Power Supply       | 380...415 VAC    | 24...240 VAC/DC |                                          | 24...240 VAC/DC |
| Relay output       | 1                | 2               | 1                                        |                 |
| Measuring Range    | 5...100 kΩ       |                 | 0.25...5 kΩ<br>5...100 kΩ<br>0.05...1 kΩ | -               |
| Product References | RM22LG11MT       | RM22LG11MR      | RM22LA32MR<br>RM35LM33MW                 | RM35LV14MW      |

## Other Control Relays for your selection

|                          |                   |                 |                                                |
|--------------------------|-------------------|-----------------|------------------------------------------------|
| <b>Application</b>       | Frequency control | Speed control   | Temperature control for elevator machine rooms |
| <b>Product Reference</b> | <b>RM35HZ21FM</b> | <b>RM35S0MW</b> | <b>RM35ATL0MW</b>                              |

(1) No need for auxiliary voltage to power the control relay. Energy is obtained directly from the line that the control relay is monitoring.

(2) Temperature Control, low threshold: -1...11°C; high threshold: 34...46°C.

(3) 3-Phase NFC (Near Field Communication) Control Relay.

(4) Relay checks that the controlled value stays between minimum and a maximum threshold.

# Harmony Timer relays



|                            |                                                                                                         |                         |                                                                                         |                      |                                   |                               |  |
|----------------------------|---------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------------------|----------------------|-----------------------------------|-------------------------------|--|
| 1                          | Timing relays with screw terminals for DIN rail mounting, 1 contact                                     |                         |                                                                                         |                      |                                   |                               |  |
| Type                       | 1 function                                                                                              | 2 functions             | 2 functions                                                                             | 1 function           | Multifunction                     | Multifunction                 |  |
| Functions (1)              | A                                                                                                       | A, At                   | L, Li                                                                                   | C                    | A, At, B, C, H, Ht, D, Di, Ac, Bw | Ad, Ah, N, O, P, Pt, T, Tt, W |  |
| Timing range               | 0.1 s...100 h                                                                                           |                         |                                                                                         |                      |                                   |                               |  |
| Type of output/current     | 1 solid state 0.7 A                                                                                     | 1 relay output 1 CO/8 A |                                                                                         |                      |                                   |                               |  |
| Power supply               | 24...240 VAC/VDC                                                                                        | 24 VDC, 24...240 VAC    |                                                                                         |                      | 12...240 VAC/VDC                  | 24 VDC, 24...240 VAC          |  |
| Frontal width              | 17.5 mm                                                                                                 |                         |                                                                                         |                      |                                   |                               |  |
| Complete product (2)       | RE17LAMW                                                                                                | RE17RAMU                | RE17RLMU                                                                                | RE17RCMU             | RE17RMMW                          | RE17RMXMU                     |  |
| 2                          | Timing relays with screw terminals for DIN rail mounting, 2 contacts                                    |                         |                                                                                         |                      |                                   |                               |  |
| Type                       | 3 functions                                                                                             | 2 functions             | Multifunction                                                                           |                      |                                   |                               |  |
| Functions (1)              | A, At, Aw                                                                                               | C, Ct                   | A, At, Aw, C, Ct, D, Dt, Dw, Di, Dit, Diw, H, Ht, Hw, Qg, Qgt, Qgw, Qt, Qtt, Qtw, W, Wt |                      |                                   |                               |  |
| Timing range               | 0.05 s...300 h                                                                                          |                         |                                                                                         |                      |                                   |                               |  |
| Type of output/current     | 2 CO/8 A                                                                                                |                         |                                                                                         |                      |                                   |                               |  |
| Power supply               | 24 VDC, 24...240 VAC                                                                                    |                         |                                                                                         |                      |                                   |                               |  |
| Frontal width              | 22.5 mm                                                                                                 |                         |                                                                                         |                      |                                   |                               |  |
| Complete product           | RE22R1MAMR                                                                                              | RE22R2CMR               | RE22R2MYMR                                                                              |                      |                                   |                               |  |
| 3                          | Timing relays with NFC technology for DIN rail mounting,screw terminals, 2 contacts                     |                         |                                                                                         |                      |                                   |                               |  |
| Type                       | Multifunction                                                                                           |                         |                                                                                         |                      |                                   |                               |  |
| Functions (1)              | A, Ac, Ad, Ah, Ak, At, B, Bw, C, D, Di, Dt, Dit, H, Ht, L, Li, Lt, Lit, N, O, P, Pt, Qt, Qtt, Tl, Tt, W |                         |                                                                                         |                      |                                   |                               |  |
| Timing range               | 0.1 s...999 h                                                                                           |                         |                                                                                         |                      |                                   |                               |  |
| Type of output/current     | 2 relay outputs, 8A                                                                                     |                         |                                                                                         |                      |                                   |                               |  |
| Power supply               | 24...240 VDC/VAC                                                                                        |                         |                                                                                         |                      |                                   |                               |  |
| Frontal width              | 22.5 mm                                                                                                 |                         |                                                                                         |                      |                                   |                               |  |
| Complete product           | RENF22R2MMW                                                                                             |                         |                                                                                         |                      |                                   |                               |  |
| 4                          | Miniature plug-in timing relays for DIN rail mounting                                                   |                         |                                                                                         |                      |                                   |                               |  |
| Function (1)               | A (Delay on energization)                                                                               |                         |                                                                                         |                      |                                   |                               |  |
| Timing range               | 0.1 s...100 h                                                                                           |                         |                                                                                         |                      |                                   |                               |  |
| Type of output/current     | 2 CO/5 A                                                                                                |                         |                                                                                         | 4 CO/5 A             |                                   |                               |  |
| Power supply               | 24 VDC                                                                                                  | 120 VAC                 | 230 VAC                                                                                 | 24 VDC               | 120 VAC                           | 230 VAC                       |  |
| Dimension                  | 21 x 27 mm miniature plug-in                                                                            |                         |                                                                                         |                      |                                   |                               |  |
| Complete product           | REXL2TMBD                                                                                               | REXL2TMF7               | REXL2TMP7                                                                               | REXL4TMBD            | REXL4TMF7                         | REXL4TMP7                     |  |
| Socket                     | RXZE2S108M / RXZE14P                                                                                    |                         |                                                                                         | RXZE2S114M / RXZE14P |                                   |                               |  |
| 5                          | 48 x 48 mm analog plug-in (8-pins) timing relays for DIN rail or front panel mounting                   |                         |                                                                                         |                      |                                   |                               |  |
| Type                       | 1 function                                                                                              | 4 functions             | 2 functions                                                                             | 4 functions          |                                   |                               |  |
| Functions (1)              | A                                                                                                       | A1, A2, H1, H2          | L, Li                                                                                   | A, B, C, Di          |                                   |                               |  |
| Timing range               | 0.02 s...300 h                                                                                          |                         |                                                                                         |                      |                                   |                               |  |
| Type of output/current     | 1 CO/5 A                                                                                                | 1 + 1 (instant.)/5 A    | 2 CO/5 A                                                                                |                      |                                   |                               |  |
| Power supply               | 24...240 VAC/VDC                                                                                        |                         |                                                                                         |                      |                                   |                               |  |
| Dimension                  | 48 x 48 mm analog panel-mounted or plug-in                                                              |                         |                                                                                         |                      |                                   |                               |  |
| Complete product           | RE48ATM12MW                                                                                             | RE48AMH13MW             | RE48ACV12MW                                                                             | RE48AML12MW          |                                   |                               |  |
| Screw connector socket (4) | RUZC2M                                                                                                  |                         |                                                                                         | RUZC3M               |                                   |                               |  |

A: power on-delay relay  
 Ac: on-delay & off-delay relay (5)  
 Act: on-delay & off-delay relay (5) (6)  
 Ad: pulse delayed relay (5)  
 Ah: pulse delayed relay (single cycle) (5)  
 Ak: asymmetrical on-delay & off-delay relay (5)  
 Akt: asymmetrical on-delay & off-delay relay (5) (6)  
 At: power on-delay relay (6)  
 Aw: power on-delay relay with retrigger/restart control signal  
 A1: power on-delay relay (R1 instantaneous, R2 timed)  
 A2: power on-delay relay (both R1/R2 timed)  
 B: interval relay (5)  
 Bw: double interval relay (5)  
 C: off-delay relay (5)  
 Ct: off-delay relay (6)  
 D: symmetrical flashing relay (starting pulse-off)  
 Di: symmetrical flashing relay (starting pulse-on)

Dit: symmetrical flashing relay (starting pulse-on) (6)  
 Diw: symmetrical flashing relay (starting pulse-on) with retrigger/restart control signal  
 Dt: symmetrical flashing relay (starting pulse-off) (6)  
 Dw: symmetrical flashing relay (starting pulse-off) with retrigger/restart control signal  
 H: interval relay  
 He: pulse on de-energization relay  
 Ht: interval relay (6)  
 Hw: interval relay with retrigger/restart control signal  
 H1: interval relay (R1 instantaneous, R2 timed)  
 H2: interval relay (both R1/R2 timed)  
 K: delay on de-energization relay (without auxiliary supply)  
 L: asymmetrical flashing relay (starting pulse-off)  
 Li: symmetrical flashing relay (starting pulse-on)  
 Lt: symmetrical flashing relay (6)  
 N: safeguard relay

O: delayed safeguard relay  
 P: pulse delayed relay with fixed pulse length  
 Pt: pulse delayed relay with fixed pulse length (6)  
 Qc: star-delta timing relay, 1CO output  
 Qe: star-delta timing relay, 1 NC + 1 NO output & split common  
 Qg: star-delta timing relay, 2 CO outputs & same common  
 Qgt: star-delta timing relay, 2 CO outputs & same common (6)  
 Qt: star-delta timing relay, 2 CO outputs & split common  
 Qtt: star-delta timing relay, 2 CO outputs & split common (6)  
 Tt: retriggerable bistable relay with control signal on  
 W: interval relay with control signal off  
 Wt: interval relay with control signal off (6)

(1) For more details about functions, please refer to the technical descriptions and schemes on our website [www.se.com](http://www.se.com).

(2) For spring terminal version, order RE17...S, like RE17RMMWS.

(3) With separate contacts.

(4) With mixed contacts.

(5) With control signal.

(6) With pause-summation control signal.

Free

"Ecostruxure Industrial Device"  
 mobile application for IOS or Android



Download the application via  
 application stores:



A man with a beard and safety glasses, wearing a white lab coat and a green apron, stands with his arms crossed in a large industrial factory. The background is filled with complex machinery, including conveyor belts, pipes, and overhead cranes. A green semi-transparent overlay covers the lower half of the image, where the text is located. The floor has yellow safety markings, including an arrow pointing right.

# 07. Modicon PLC, power supply and transformer, Uninterruptible Power Supply



# Modicon PLC: M221



| Modicon M221 logic controllers |                             |                                                         |                                                        |                                                      |                                                          |                                                         |                                                         |                                                          |                                                         |
|--------------------------------|-----------------------------|---------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------|
| Applications                   |                             | Control of simple machines                              |                                                        |                                                      |                                                          |                                                         |                                                         |                                                          |                                                         |
| Supply voltage                 |                             | 100-240 V ~                                             | 24 V ---                                               | 24 V ---                                             | 100-240 V ~                                              | 24 V ---                                                | 24 V ---                                                | 100-240 V ~                                              | 24 V ---                                                |
| Inputs/outputs                 | Logic inputs/outputs        | 16 logic I/O                                            |                                                        |                                                      | 24 logic I/O                                             |                                                         |                                                         | 40 logic I/O                                             |                                                         |
|                                | No. and type of inputs      | 9 sink/source 24 V --- inputs, inc. 4 high-speed inputs |                                                        |                                                      | 14 sink/source 24 V --- inputs, inc. 4 high-speed inputs |                                                         |                                                         | 24 sink/source 24 V --- inputs, inc. 4 high-speed inputs |                                                         |
|                                | No. and type of outputs     | 7 relay outputs                                         | 7 source transistor outputs, inc. 2 high-speed outputs | 7 sink transistor outputs, inc. 2 high-speed outputs | 10 relay outputs                                         | 10 source transistor outputs, inc. 2 high-speed outputs | 10 source transistor outputs, inc. 2 high-speed outputs | 16 relay outputs                                         | 16 source transistor outputs, inc. 2 high-speed outputs |
|                                | Connection of logic I/O     | On removable screw terminal block                       |                                                        |                                                      |                                                          |                                                         |                                                         |                                                          |                                                         |
|                                | Analog inputs               | 2 x 0...10 V analog inputs                              |                                                        |                                                      |                                                          |                                                         |                                                         |                                                          |                                                         |
|                                | Connection of analog inputs | On dedicated removable connector                        |                                                        |                                                      |                                                          |                                                         |                                                         |                                                          |                                                         |
| Logic controller               | No Ethernet port            | TM221C16R                                               | TM221C16T                                              | TM221C16U                                            | TM221C24R                                                | TM221C24T                                               | TM221C24U                                               | TM221C40R                                                | TM221C40T                                               |
|                                | With embedded Ethernet port | TM221CE16R                                              | TM221CE16T                                             | TM221CE16U                                           | TM221CE24R                                               | TM221CE24T                                              | TM221CE24U                                              | TM221CE40R                                               | TM221CE40T                                              |



| Modicon M221 Book logic controllers |                             |                                                                |                                                          |
|-------------------------------------|-----------------------------|----------------------------------------------------------------|----------------------------------------------------------|
| Applications                        |                             | Control of simple machines                                     |                                                          |
| Supply voltage                      |                             | 24 V ---                                                       |                                                          |
| Inputs/outputs                      | Logic inputs/outputs        | 16 logic I/O                                                   | 32 logic I/O                                             |
|                                     | No. and type of inputs      | 8 sink/source 24 V --- inputs, inc. 4 high-speed inputs        | 16 sink/source 24 V --- inputs, inc. 4 high-speed inputs |
|                                     | No. and type of outputs     | 8 relay outputs                                                | 16 source transistor outputs, inc. 2 high-speed outputs  |
|                                     | Connection of logic I/O     | On removable screw terminal block or spring terminal block (1) |                                                          |
|                                     | Analog inputs               | 2 x 0...10 V analog inputs                                     |                                                          |
|                                     | Connection of analog inputs | On dedicated removable connector                               |                                                          |
| Logic controller                    | No Ethernet port            | TM221M16R                                                      | TM221M16T                                                |
|                                     |                             | TM221M16RG (1)                                                 | TM221M16TG (1)                                           |
|                                     | With embedded Ethernet port | TM221ME16R                                                     | TM221ME16T                                               |
|                                     |                             | TM221ME16RG (1)                                                | TM221ME16TG (1)                                          |

(1) Spring terminal block on references ending in the letter G.

# Modicon power supplies and transformers



## Regulated switch mode power supplies 10 to 480 W for mounting on rail

| Power                                   |       | 10 to 60 W                                                                                                                                                        |             |             | 50 to 480 W                         |             |             |
|-----------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-------------------------------------|-------------|-------------|
| Input voltage                           |       | 100...240 V ~                                                                                                                                                     |             |             | 100...240 V ~ and 140...340 V ~ (2) |             |             |
| Certifications (1)                      |       | CE marking, CB Scheme, cULus listed,  ULus recognized, RCM, EAC, NEC class 2 (3) |             |             |                                     |             |             |
| Housing                                 |       | Modular                                                                                                                                                           |             |             | Book                                |             |             |
| Output voltage                          |       | 5 V ~                                                                                                                                                             | 12 V ~      | 24 V ~      | 12 V ~                              | 24 V ~      | 48 V ~      |
| Reference (according to output current) | 0.4 A | —                                                                                                                                                                 | —           | ABLM1A24004 | —                                   | —           | —           |
|                                         | 0.6 A | —                                                                                                                                                                 | —           | ABLM1A24006 | —                                   | —           | —           |
|                                         | 1 A   | —                                                                                                                                                                 | ABLM1A12010 | —           | —                                   | —           | —           |
|                                         | 1.2 A | —                                                                                                                                                                 | —           | ABLM1A24012 | —                                   | —           | —           |
|                                         | 2.1 A | —                                                                                                                                                                 | ABLM1A12021 | —           | —                                   | —           | —           |
|                                         | 2.1 A | —                                                                                                                                                                 | —           | —           | —                                   | ABLS1A24021 | —           |
|                                         | 2.5 A | —                                                                                                                                                                 | —           | ABLM1A24025 | —                                   | —           | ABLS1A48025 |
|                                         | 3.1 A | —                                                                                                                                                                 | —           | —           | —                                   | ABLS1A24031 | —           |
|                                         | 3.6 A | ABLM1A05036                                                                                                                                                       | —           | —           | —                                   | —           | —           |
|                                         | 3.8 A | —                                                                                                                                                                 | —           | —           | —                                   | ABLS1A24038 | —           |
|                                         | 4.2 A | —                                                                                                                                                                 | ABLM1A12042 | —           | —                                   | —           | —           |
|                                         | 5 A   | —                                                                                                                                                                 | —           | —           | —                                   | ABLS1A24050 | —           |
|                                         | 6.2 A | —                                                                                                                                                                 | —           | —           | ABLS1A12062                         | —           | —           |
|                                         | 10 A  | —                                                                                                                                                                 | —           | —           | ABLS1A12100                         | ABLS1A24100 | —           |
|                                         | 20 A  | —                                                                                                                                                                 | —           | —           | —                                   | ABLS1A24200 | —           |



## Regulated switch mode power supplies 72 to 960 W for mounting on rail (wide input voltage range)

| Input voltage                           |                       | 100...120 V ~ and 200...500 V ~ (4)                          |   | 380...500 V ~ |
|-----------------------------------------|-----------------------|--------------------------------------------------------------|---|---------------|
| Certifications (1)                      |                       | CE marking, UL (508), CSA (60950-1), CB Scheme, EAC, RCM, KC |   |               |
| Compatibility                           | With function modules | Yes with all Modicon power supply function modules (5)       |   |               |
| Output voltage                          |                       | 24 V ~                                                       |   |               |
| Reference (according to output current) | 3 A                   | ABL8RPS24030                                                 | — | —             |
|                                         | 5 A                   | ABL8RPS24050                                                 | — | —             |
|                                         | 10 A                  | ABL8RPS24100                                                 | — | —             |
|                                         | 20 A                  | ABL8RPM24200                                                 | — | ABL8WPS24200  |
|                                         | 40 A                  | —                                                            | — | ABL8WPS24400  |

## Regulated switch mode power supplies 100 to 240 W for mounting on panel (6)

| Input voltage                           |       | 100...240 V ~                                                   |             |
|-----------------------------------------|-------|-----------------------------------------------------------------|-------------|
| Certifications (1)                      |       | CE marking, CB Scheme, cULus listed, CULus recognized, RCM, EAC |             |
| Output voltage                          |       | 12 V ~                                                          | 24 V ~      |
| Reference (according to output current) | 4.5 A | —                                                               | ABLP1A24045 |
|                                         | 6.2 A | —                                                               | ABLP1A24062 |
|                                         | 8.5 A | ABLP1A12085                                                     | —           |
|                                         | 10 A  | —                                                               | ABLP1A24100 |

(1) Please consult detail on certifications for each reference in the individual datasheet available on our website [www.se.com](http://www.se.com).

(2) Depending on product reference, consult our product datasheet on [www.se.com](http://www.se.com).

(3) NEC class 2 for book only for ABLM●●, ABLS1A24021, ABLS1A24031, and ABLS1A24038.

(4) Except ABL8RPM24200: 100...240 V and 200...240 V ~.

(5) Compatible modules: buffer module, batteries and battery control modules, redundancy module, and discriminating downstream protection module.

(6) Mounting on DIN rail possible with additional accessories; ABLP1A01 for all references except ABLP1A24100, ABLP1A02 for ABLP1A24100.

For more information, see the Modicon power supply catalog on our website [www.se.com](http://www.se.com).



# Modicon power supplies and transformers



| Function modules for continuity of service (only compatible with ABL8RP/ABL8WP power supplies) |       |                                                                              |                                                |                   |
|------------------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------|------------------------------------------------|-------------------|
| Type of function                                                                               |       | Battery modules (3) (4)                                                      | Solutions to microbreaks and power outages (4) | Redundancy module |
| Input voltage                                                                                  |       | 24 V ~                                                                       |                                                |                   |
| Certifications (2)                                                                             |       | CE marking, UL (508), CSA (60950-1), EAC, RCM                                |                                                |                   |
| Compatibility                                                                                  |       | With power supplies<br>Yes, but only with ABL8RP/ABL8WP Modicon power supply |                                                |                   |
| Output voltage                                                                                 |       | 24 V ~                                                                       |                                                |                   |
| Reference (according to output current)                                                        | 3 Ah  | ABL8BPK24A03                                                                 | –                                              | –                 |
|                                                                                                | 7 Ah  | ABL8BPK24A07                                                                 | –                                              | –                 |
|                                                                                                | 12 Ah | ABL8BPK24A12                                                                 | –                                              | –                 |
|                                                                                                | 20 A  | –                                                                            | ABL8BBU24200 (1)                               | –                 |
|                                                                                                | 40 A  | –                                                                            | ABL8BBU24400 (1)                               | ABL8RED24400      |

(1) Similar offer also available, see Schneider Electric DC UPS (see page below).

(2) Please consult detail on certifications for each reference in the individual datasheet available on our website [www.se.com](http://www.se.com).

(3) Supplied with 20 or 30 A fuse, depending on the model.

(4) Holding time depending on the load. Please refer to the table of compatibility of battery module with holding time in the Modicon power supply catalog on our website [www.se.com](http://www.se.com).

## Uninterruptible Power Supply (UPS)



1

| Easy UPS 24V DC DIN Rail Industrial |                             |               |  |  |  |
|-------------------------------------|-----------------------------|---------------|--|--|--|
| Power Capacity                      | 240 W                       | 480 W         |  |  |  |
| Input/Output                        | Hardwire/24 V ---           |               |  |  |  |
| Input voltage range                 | 21.6 to 28.6 V ---          |               |  |  |  |
| Mounting type                       | DIN rail mount              |               |  |  |  |
| Runtime                             | 10 mins @ 10 A              | 5 mins @ 20 A |  |  |  |
| Communication                       | I/O Relay, LEDs             |               |  |  |  |
| Number of batteries in parallel     | 4                           |               |  |  |  |
| Safety Certifications               | UL, TUV, CE and UKCA listed |               |  |  |  |

2

| Easy UPS                                  |                                           |                                  |
|-------------------------------------------|-------------------------------------------|----------------------------------|
| Series                                    | 1 Ph BVS Series                           | 1 Ph SMV Series                  |
| Nominal Input Voltage   Input Frequency   | 230 V 50/60 Hz (Auto sensing)             |                                  |
| Nominal Output Voltage   Output Frequency | 230 V ~ 50 Hz or 60 Hz +/- 1 Hz           |                                  |
| Power Capacity                            | 300 W/500 VA to 600 W/1,000 VA            | 525 W/750 VA to 2,100 W/3,000 VA |
| Topology                                  | Line interactive                          |                                  |
| Battery type                              | Maintenance-free sealed lead-acid battery |                                  |

3

| Easy UPS 1 Ph On-line                   |                                           |                  |                  |                                    |                    |
|-----------------------------------------|-------------------------------------------|------------------|------------------|------------------------------------|--------------------|
| Model                                   | SRV 1,000 VA                              | SRV 2,000 VA     | SRV 3,000 VA     | SRV 6,000 VA                       | SRV 10,000 VA      |
| Nominal Input Voltage   Input Frequency | 230 V ~ 50/60 Hz                          |                  |                  |                                    |                    |
| Output Voltage   Frequency              | 220/230/240 V ~   50/60 Hz +/-0.5%        |                  |                  | 220/230/240 V ~   50/60 Hz +/-0.1% |                    |
| Output Power Capacity (Watts/VA)        | 800 W/1,000 VA                            | 1,600 W/2,000 VA | 2,400 W/3,000 VA | 6,000 W/6,000 VA                   | 10,000 W/10,000 VA |
| Topology                                | Online                                    |                  |                  |                                    |                    |
| Mounting type                           | Rack & Tower                              |                  |                  |                                    |                    |
| Battery type                            | Maintenance-free sealed lead-acid battery |                  |                  |                                    |                    |

Note: For more information depending on product reference, consult our product datasheet on [www.se.com](http://www.se.com).

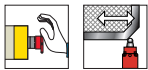




## 08. Harmony safety modules and Modicon safety controllers



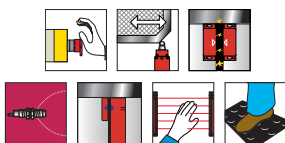
# Harmony safety modules



## Function: Emergency stop, guard switch

Harmony safety modules conforming to Cat. 4, PL e, SIL3, and STOP category 0

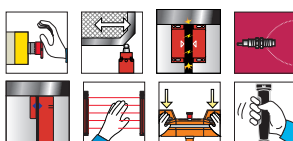
| Terminal type                                  |                 | Captive screw clamp terminal |                       |
|------------------------------------------------|-----------------|------------------------------|-----------------------|
| Connections                                    |                 | Integrated in module         | Removable from module |
| Number of instantaneous safety output contacts |                 | 3 NO                         | 3 NO                  |
| Number of additional output contacts           |                 | 1 solid state                | 1 solid state         |
| Reference                                      | 24 VAC/VDC      | XPSBAC14AP                   | XPSBAC14AC            |
|                                                | 48...240 VAC/DC | XPSBAC34AP                   | XPSBAC34AC            |



## Function: Emergency stop, switch monitoring, protective guard applications, coded magnetic switch monitoring, safety mats/edges, safety light curtain or RFID switch monitoring

Harmony safety modules conforming to Cat. 4, PL e, SILCL3, STOP category 0 (for XPSUAK) and STOP category 1 (for XPSUAT)

| Terminal type                           |                  | Captive screw clamp terminal               |                            | Spring clamp terminal                      |                            |
|-----------------------------------------|------------------|--------------------------------------------|----------------------------|--------------------------------------------|----------------------------|
| Connections                             |                  | Removable from module                      |                            |                                            |                            |
| Number of instantaneous safety circuits |                  | 3 NO                                       | 2 NO + 1 NC                | 3 NO                                       | 2 NO + 1 NC                |
| Number of delayed or immediate contacts |                  | 3 NO + 1 NC                                | –                          | 3 NO + 1 NC                                | –                          |
| Number of additional outputs            |                  | 1 solid state + 1 pulsed diagnostic output | 1 pulsed diagnostic output | 1 solid state + 1 pulsed diagnostic output | 1 pulsed diagnostic output |
| Reference                               | 24 VAC/VDC       | –                                          | XPSUAK12AP                 | –                                          | XPSUAK12AC                 |
|                                         |                  | 0...15 min                                 | XPSUAT13A3AP               | XPSUAT13A3AC                               | –                          |
|                                         | 48...240 VAC/VDC | –                                          | XPSUAK32AP                 | –                                          | XPSUAK32AC                 |
|                                         |                  | 0...15 min                                 | XPSUAT33A3AP               | XPSUAT33A3AC                               | –                          |



## Function: Emergency stop, protective guard, enabling switch or two-hand control monitoring, coded magnetic switch, SIL2 proximity switches, safety light curtain or RFID switch monitoring (1) (2)

Harmony safety modules conforming to Cat. 4, PL e, SILCL3, STOP category 0

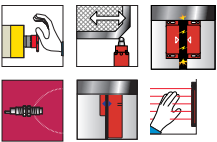
| Terminal type                                                                                 |                  | Captive screw clamp terminal | Spring clamp terminal      |
|-----------------------------------------------------------------------------------------------|------------------|------------------------------|----------------------------|
| Connections                                                                                   |                  | Removable from module        |                            |
| Type conforming to standard EN5074                                                            |                  | IIIA or IIIC                 | IIIA or IIIC               |
| Number of instantaneous safety circuits                                                       |                  | 2 NO                         | 2 NO                       |
| Maximum number of two-hand control or enabling switch monitoring (Cat. 4, PL e, SIL3)         |                  | 1                            | 1                          |
| Maximum number of safety light curtain or RFID switch monitoring (Cat. 4, PL e, SIL3)         |                  | 2                            | 2                          |
| Maximum number of safety coded magnetic switches or other safety devices (Cat. 4, PL e, SIL3) |                  | 2                            | 2                          |
| Number of additional outputs                                                                  |                  | 1 pulsed diagnostic output   | 1 pulsed diagnostic output |
| Reference                                                                                     | 24 VAC/VDC       | XPSUS12AP                    | XPSUS12AC                  |
|                                                                                               | 48...240 VAC/VDC | XPSUS32AP                    | XPSUS32AC                  |

(1) Enabling switch and two-hand control with automatic start only.

(2) Can also be used with XY2SB71 or XY2SB714 two-hand control stations.

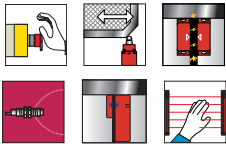


# Harmony safety modules



Function: Emergency stop, switch monitoring, protective guard applications, coded magnetic switch monitoring, safety light curtain or RFID switch monitoring

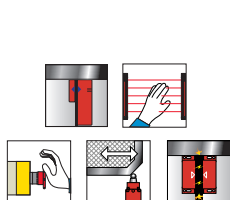
| Harmony safety modules conforming to Cat. 4, PL e, SILCL3, STOP category 0 |                              |            |                            |
|----------------------------------------------------------------------------|------------------------------|------------|----------------------------|
| Terminal type                                                              | Captive screw clamp terminal |            | Spring clamp terminal      |
| Connections                                                                | Removable from module        |            |                            |
| Number of instantaneous safety circuits                                    | 3 NO                         |            | 3 NO                       |
| Number of additional outputs                                               | 1 pulsed diagnostic output   |            | 1 pulsed diagnostic output |
| Reference                                                                  | 24 VAC/VDC                   | XPSUAF13AP | XPSUAF13AC                 |
|                                                                            | 48...240 VAC/VDC             | XPSUAF33AP | XPSUAF33AC                 |



Function: Emergency stop, switch monitoring, protective guard applications, coded magnetic switch monitoring, safety light curtain or RFID switch monitoring

| Harmony safety modules conforming to Cat. 4, PL e, SILCL3, STOP category 0 |                              |            |                            |
|----------------------------------------------------------------------------|------------------------------|------------|----------------------------|
| Terminal type                                                              | Captive screw clamp terminal |            | Spring clamp terminal      |
| Connections                                                                | Removable from module        |            |                            |
| Number of instantaneous safety circuits                                    | 3 NO + 1 NC                  |            | 3 NO + 1 NC                |
| Maximum number of safety functions for Cat. 4, PL e, SIL3                  | 6                            |            | 6                          |
| Number of additional outputs                                               | 1 pulsed diagnostic output   |            | 1 pulsed diagnostic output |
| Reference                                                                  | 24 VAC/VDC                   | XPSUDN13AP | XPSUDN13AC                 |
|                                                                            | 48...240 VAC/VDC             | XPSUDN33AP | XPSUDN33AC                 |

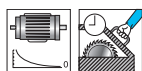
# Harmony safety modules



**Function: Emergency stop, switch monitoring and protective guard applications**

Harmony safety modules conforming to Cat. 4, PL e, SIL3, and STOP category 1

|                                                |                              |            |                       |
|------------------------------------------------|------------------------------|------------|-----------------------|
| Terminal type                                  | Captive screw clamp terminal |            | Spring clamp terminal |
| Connections                                    | Removable from module        |            |                       |
| Number of instantaneous safety output contacts | 2 NO                         |            |                       |
| Number of delayed or immediate output contacts | 1 NO                         |            |                       |
| Number of additional outputs                   | 1 solid-state                |            |                       |
| Reference                                      | 24 VAC/DC                    | 0...15 min | XPSBAT12A1AP          |
|                                                |                              |            | XPSBAT12A1AC          |



**Function: Zero speed monitoring with delayed access to dangerous area**

Harmony safety modules conforming to Cat. 3, PL e, SIL3, and STOP category 1

|                                         |                                            |            |                       |
|-----------------------------------------|--------------------------------------------|------------|-----------------------|
| Terminal type                           | Captive screw clamp terminal               |            | Spring clamp terminal |
| Connections                             | Removable from module                      |            |                       |
| Number of safety delayed output contact | 1 NO (1)                                   |            |                       |
| Number of additional outputs            | 1 Solid-state + 1 pulsed diagnostic output |            |                       |
| Voltage threshold selection             | 50...500 mV                                |            |                       |
| Time delay selection                    | 0.5...60 s                                 |            |                       |
| Reference                               | 24 VAC/DC                                  | XPSUVN11AP | XPSUVN11AC            |
|                                         | 48...240 VAC/DC                            | XPSUVN31AP | XPSUVN31AC            |



**Function: Increasing the number of safety contacts (2)**

Harmony safety modules conforming to Cat. 4, PL e, SILCL3, STOP category 0

|                                         |                              |            |                       |
|-----------------------------------------|------------------------------|------------|-----------------------|
| Terminal type                           | Captive screw clamp terminal |            | Spring clamp terminal |
| Connections                             | Removable from module        |            |                       |
| Number of instantaneous safety circuits | 4 NO                         |            | 4 NO                  |
| Number of additional outputs            | 2 NC                         |            | 2 NC                  |
| Reference                               | 24 VAC/VDC                   | XPSUEP14AP | XPSUEP14AC            |
|                                         | 48...240 VAC/VDC             | XPSUEP34AP | XPSUEP34AC            |

(1) To increase the number of safety delayed output contacts, please consider to add the appropriate XPSUEP range extension outputs.

(2) This module can be used with just XPSU safety modules and is mounted via a side expansion connection included with the product, expect for XPSUAB.

# Modicon MCM modular safety controllers



## Safety controllers CPU

### Safety controllers conforming to Cat. 4, PL e, SIL3

|                            |        |                                                   |                |                                                   |               |
|----------------------------|--------|---------------------------------------------------|----------------|---------------------------------------------------|---------------|
| Description                |        | Safety controller CPU   CPU + backplane connector |                | Safety controller CPU   CPU + backplane connector |               |
| Connections                |        | Removable from controller                         |                |                                                   |               |
| Number and type of inputs  |        | 8 digital inputs + 2 for Start/Restart interlock  |                | 8 digital inputs + 4 for Start/Restart interlock  |               |
| Number and type of outputs |        | 2 OSSD pairs + 4 test outputs + 2 status outputs  |                | 4 OSSD + 4 test outputs + 4 status outputs        |               |
| Terminal type              |        | Screw (1)                                         |                |                                                   |               |
| Reference                  | 24 VDC | XPSMCMCP0802                                      | XPSMCMCP0802BC | XPSMCMC10804                                      | XPSMCMC10804B |



## Safe expansion modules

### Safe expansion I/O modules

| Description                | Safe mixed I/O expansion modules                 |                                                   | Safe input expansion modules |                   |                                       |                                              |
|----------------------------|--------------------------------------------------|---------------------------------------------------|------------------------------|-------------------|---------------------------------------|----------------------------------------------|
| Number and type of inputs  | 8 digital inputs + 2 for Start/Restart interlock | 8 digital inputs + 4 for Start/Restart interlock  | 8 digital inputs             | 16 digital inputs | 12 digital inputs                     | 4-channel analogic inputs 0...20 mA/0...10 V |
| Number and type of outputs | 2 OSSD pairs + 4 test outputs + 2 status outputs | 4 single OSSD + 4 test outputs + 4 status outputs | 4 test outputs               | 4 test outputs    | 8 test outputs for 4-wire safety mats | —                                            |
| Resolution                 | —                                                |                                                   |                              |                   |                                       | 16 bits                                      |
| Terminal type              | Screw (1)                                        |                                                   |                              |                   |                                       |                                              |
| Reference                  | 24 VDC                                           | XPSMCMX0802                                       | XPSMCMX0804 (2)              | XPSMCMCI0800      | XPSMCMCI1600                          | XPSMCMCI1200MT XPSMCMCI0400 (2)              |



### Safe output expansion modules

| Description                | Safe digital expansion modules  |                                 | Safe relay output modules (without expansion bus connection, wired externally) |                                                  | Safe relay output modules (with expansion bus connection) |                                |
|----------------------------|---------------------------------|---------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|--------------------------------|
| Number and type of inputs  | 2 for Start/Restart interlock   | 4 for Start/Restart interlock   | 1 for Start/Restart interlock                                                  | 2 for Start/Restart interlock                    | 4 for Start/Restart interlock                             |                                |
| Number and type of outputs | 2 OSSD pairs + 2 status outputs | 4 OSSD pairs + 4 status outputs | 2 relays for 1 output (2 NO + 1 NC)                                            | 4 relays for 2 independent outputs (4 NO + 2 NC) | 4 relays                                                  | 4 relays with 8 status outputs |
| Terminal type              | Screw (1)                       |                                 |                                                                                |                                                  |                                                           |                                |
| Reference                  | 24 VDC                          | XPSMCMDO0002                    | XPSMCMDO0004                                                                   | XPSMCMER0002                                     | XPSMCMER0004                                              | XPSMCMRO0004 XPSMCMRO0004D     |



### Safe speed monitoring modules

| Description               | Safe speed monitoring modules                                          |                                                                             |                                                                        |                                                                             |                                                                        |                                                                             |
|---------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Number and type of inputs | - 1 Sin/Cos encoder and 2 proximity sensor inputs                      | - 2 Sin/Cos encoders and 2 proximity sensor inputs                          | - 1 TTL encoder and 2 proximity sensor inputs                          | - 2 TTL encoders and 2 proximity sensor inputs                              | - 1 HTL encoder and 2 proximity sensor inputs                          | - 2 HTL encoders and 2 proximity sensor inputs                              |
| Connector type            | - 1x RJ 45 (ENC1)<br>- Proximity sensor connection via terminal blocks | - 2x RJ 45 (ENC1/ENC2)<br>- Proximity sensor connection via terminal blocks | - 1x RJ 45 (ENC1)<br>- Proximity sensor connection via terminal blocks | - 2x RJ 45 (ENC1/ENC2)<br>- Proximity sensor connection via terminal blocks | - 1x RJ 45 (ENC1)<br>- Proximity sensor connection via terminal blocks | - 2x RJ 45 (ENC1/ENC2)<br>- Proximity sensor connection via terminal blocks |
| Terminal type             | Screw (1)                                                              |                                                                             |                                                                        |                                                                             |                                                                        |                                                                             |
| Reference                 | XPSMCMEN0100SC                                                         | XPSMCMEN0200SC (3)                                                          | XPSMCMEN0100TT                                                         | XPSMCMEN0200TT                                                              | XPSMCMEN0100HT                                                         | XPSMCMEN0200HT                                                              |

(1) References are given for products with a screw connector. For equivalent references with a spring clamp connector, add a "G" at the end of the reference. For example, XPSMCMX0802 becomes XPSMCMX0802G.

(2) Modules can be used with just the CPU XPSMCMC10804 or XPSMCMC10804BC CPU (screw or spring terminal type).

(3) When monitoring of only 2 proximity sensors is required, order an XPSMCMEN0200.



# Modicon MCM modular safety controllers



## Safe expansion modules (continued)

### Safe communication expansion modules

|                        |                                                                                   |                                                                                  |
|------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <b>Description</b>     | Safe RS 485 bus expansion module for remote extension                             |                                                                                  |
| <b>Characteristics</b> | 1 connection interface:<br>single channel transmitter/receiver network connection | 2 connections interface:<br>dual channel transmitter/receiver network connection |
| <b>Terminal type</b>   | Screw (1)                                                                         |                                                                                  |
| <b>Reference</b>       | <b>XPSMCMCO0000S1</b>                                                             | <b>XPSMCMCO0000S2</b>                                                            |

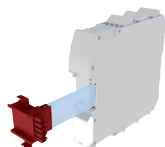


## Non-Safe communication modules

|                                |                                |                       |                       |                       |                       |                       |
|--------------------------------|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Description</b>             | Non-Safe communication modules |                       |                       |                       |                       |                       |
| <b>Fieldbus/network type</b>   | CANopen                        | Ethernet IP           | EtherCAT              | Modbus Serial (RTU)   | Modbus TCP            | Profibus DP           |
| <b>Fieldbus connector type</b> | SUB-D 9-way (female)           | 1x RJ 45 (in/out)     | 2x RJ 45 (in/out)     | 1x RJ 45              | 1x RJ 45 (in/out)     | SUB-D 9-way (male)    |
| <b>Terminal type</b>           | Screw (1)                      |                       |                       |                       |                       |                       |
| <b>Reference</b>               | <b>XPSMCMCO0000CO</b>          | <b>XPSMCMCO0000EI</b> | <b>XPSMCMCO0000EC</b> | <b>XPSMCMCO0000MB</b> | <b>XPSMCMCO0000EM</b> | <b>XPSMCMCO0000PB</b> |

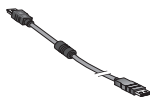
## Software

|                                 |                                                                                                                                                                                     |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b>              | SoSafe configurable software                                                                                                                                                        |
| <b>Application</b>              | To configure a logic connection between the inputs and outputs of the XPSMCMCP0802 and XPSMCMC10804 safety controller CPU (4) and the components of the application being developed |
| <b>PC hardware requirements</b> | RAM: 256 MB, Hard disk $\geq$ 300 MB of free space<br>USB connector: 1.1 or 2.0, CD-ROM drive                                                                                       |
| <b>PC software requirements</b> | Windows XP with Service Pack 3 installed or Windows Vista, 32-bit, or Windows 7 or 8.1, 32-bit and 64-bit<br>Microsoft Framework 3.5 installed on the PC                            |
| <b>Reference</b>                | <b>Free software available to download from <a href="http://www.se.com">www.se.com</a></b>                                                                                          |



## Accessories

|                    |                                                                       |                                                                                       |
|--------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Description</b> | Backplane expansion connector (2)                                     | Memory card                                                                           |
| <b>Application</b> | To connect the various expansion modules to the safety controller CPU | To save configuration data for subsequent transfer to a new device without using a PC |
| <b>Reference</b>   | <b>XPSMCMCN0000SG</b>                                                 | <b>XPSMCMME0000</b>                                                                   |



|                    |                                                                                                                                                                    |                                                  |                    |                                                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b> | Configuration cable                                                                                                                                                | RS 485 shielded cables                           |                    | Encoder splitter cables                                                                                                          |
| <b>Use</b>         | For software configuration, between a PC, the safety controller CPU, and the fieldbus communication modules. Equipped with 2x USB connectors: USB A and USB mini B | Between two Safe communication expansion modules |                    | Between SIN/COS safe speed monitoring modules and Lexium 62 (PacDrive 3), Lexium 32 servo drives and the associated servo motors |
| <b>Reference</b>   | <b>TCSXCNAMUM3P</b>                                                                                                                                                | <b>TSXSCMCN010</b>                               | <b>TSXSCMCN025</b> | <b>TSXSCMCN050</b>                                                                                                               |
|                    |                                                                                                                                                                    |                                                  |                    | <b>TSXESPP3001 (3)</b>                                                                                                           |

(1) References are given for products with a screw terminal. For equivalent references with a spring clamp connector, add a "G" at the end of the reference. For example, XPSMCMCO0000S1 becomes XPSMCMCO0000S1G.

(2) This connector only needs to be ordered for the XPSMCMCP0802 or XPSMCMC10804 safety controller when it is connected to expansion modules.

(3) With 1 m cable. For other cable lengths, replace the last number of the reference with 3 for a 3 m cable or 5 for a 5 m cable.

(4) Consider all CPUs with screw and spring clamp terminals.



A man with short dark hair and a beard, wearing a grey polo shirt, is shown in profile from the chest up. He is reaching out with his right hand to press a red button on a control panel. The panel is mounted on a grey metal structure with yellow and black diagonal safety stripes. Above the red button is a yellow emergency stop button with a red center. To the left of the buttons is a white rectangular label. The background is a blurred industrial factory floor with various equipment and overhead lights. A semi-transparent green horizontal bar is positioned behind the man's arm and the control panel.

# 09. Universal enclosures



# Spacial SDB, SBM, and SBX steel industrial boxes



## Spacial SDB steel industrial boxes

Degree of protection: IP55. Mechanical protection: IK07. Finish: painted with textured epoxy-polyester resin in RAL7035 light gray

| Type of box                                         |     |     |     | Metal junction boxes |
|-----------------------------------------------------|-----|-----|-----|----------------------|
|                                                     |     |     |     | Without knock-outs   |
| Type of cover                                       |     |     |     | Low cover            |
| Reference according to dimensions (H x W x D) in mm | 85  | 85  | 49  | <b>NSYDBN88</b>      |
|                                                     | 105 | 105 | 49  | <b>NSYDBN1010</b>    |
|                                                     | 155 | 105 | 61  | <b>NSYDBN1510</b>    |
|                                                     | 206 | 156 | 83  | <b>NSYDBN2015</b>    |
|                                                     | 256 | 206 | 93  | <b>NSYDBN2520</b>    |
|                                                     | 307 | 257 | 116 | <b>NSYDBN3025</b>    |



## Spacial SBM steel industrial boxes

Degree of protection: IP66. Mechanical protection IK10. Finish: painted with textured epoxy-polyester resin in RAL7035 light gray

| Type of box                                         |     |     |     | Steel industrial boxes |
|-----------------------------------------------------|-----|-----|-----|------------------------|
|                                                     |     |     |     | Flat boxes             |
| Reference according to dimensions (H x W x D) in mm | 150 | 150 | 80  | <b>NSYSBM15158</b>     |
|                                                     | 150 | 150 | 120 | <b>NSYSBM151512</b>    |
|                                                     | 150 | 200 | 80  | <b>NSYSBM15208</b>     |
|                                                     | 150 | 200 | 120 | <b>NSYSBM152012</b>    |
|                                                     | 150 | 300 | 80  | <b>NSYSBM15308</b>     |
|                                                     | 150 | 300 | 120 | <b>NSYSBM153012</b>    |
|                                                     | 150 | 400 | 80  | <b>NSYSBM15408</b>     |
|                                                     | 150 | 400 | 120 | <b>NSYSBM154012</b>    |
|                                                     | 200 | 200 | 80  | <b>NSYSBM20208</b>     |
|                                                     | 200 | 200 | 120 | <b>NSYSBM202012</b>    |
|                                                     | 200 | 300 | 80  | <b>NSYSBM20308</b>     |
|                                                     | 200 | 300 | 120 | <b>NSYSBM203012</b>    |
|                                                     | 200 | 400 | 80  | <b>NSYSBM20408</b>     |
|                                                     | 200 | 400 | 120 | <b>NSYSBM204012</b>    |
|                                                     | 200 | 500 | 80  | <b>NSYSBM20508</b>     |
|                                                     | 200 | 500 | 120 | <b>NSYSBM205012</b>    |
|                                                     | 200 | 600 | 80  | <b>NSYSBM20608</b>     |
|                                                     | 200 | 600 | 120 | <b>NSYSBM206012</b>    |
|                                                     | 200 | 800 | 120 | <b>NSYSBM208012</b>    |
|                                                     | 300 | 300 | 120 | <b>NSYSBM303012</b>    |
|                                                     | 300 | 400 | 120 | <b>NSYSBM304012</b>    |
|                                                     | 300 | 500 | 120 | <b>NSYSBM305012</b>    |
|                                                     | 300 | 600 | 120 | <b>NSYSBM306012</b>    |
|                                                     | 300 | 800 | 120 | <b>NSYSBM308012</b>    |
|                                                     | 400 | 400 | 120 | <b>NSYSBM404012</b>    |
|                                                     | 400 | 500 | 120 | <b>NSYSBM405012</b>    |
|                                                     | 400 | 600 | 120 | <b>NSYSBM406012</b>    |
|                                                     | 400 | 800 | 120 | <b>NSYSBM408012</b>    |



## Spacial SBX stainless steel industrial boxes

Degree of protection: IP66, stainless steel AISI 304L

| Type of box                                         |     |     |     | Stainless steel industrial boxes |
|-----------------------------------------------------|-----|-----|-----|----------------------------------|
| Reference according to dimensions (H x W x D) in mm | 150 | 150 | 80  | <b>NSYSBX15158</b>               |
|                                                     | 150 | 300 | 80  | <b>NSYSBX15308</b>               |
|                                                     | 200 | 200 | 80  | <b>NSYSBX20208</b>               |
|                                                     | 200 | 300 | 80  | <b>NSYSBX20308</b>               |
|                                                     | 200 | 400 | 120 | <b>NSYSBX204012</b>              |
|                                                     | 300 | 300 | 120 | <b>NSYSBX303012</b>              |



# Spacial CRN and Spacial S3D steel wall-mounting enclosures



## Spacial CRN and Spacial S3D (1) multi-purpose steel wall-mounting enclosures

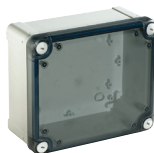
Degree of protection: IP66 (single door), IP55 (double door). Mechanical protection: IK10. Finish: painted with textured epoxy-polyester resin in RAL7035 light grey

| Range                                                                    |      |      |     |   | Spacial CRN               |                        | Spacial S3D               |                        | Mounting plate       |
|--------------------------------------------------------------------------|------|------|-----|---|---------------------------|------------------------|---------------------------|------------------------|----------------------|
| Composition                                                              |      |      |     |   | With plain mounting plate | Without mounting plate | With plain mounting plate | Without mounting plate | Plain mounting plate |
| Reference according to dimensions (H x W x D) in mm, and number of doors | 200  | 200  | 150 | 1 | —                         | NSYCRN22150            | —                         | —                      | NSYMM22              |
|                                                                          | 200  | 300  | 150 | 1 | —                         | NSYCRN23150            | —                         | —                      | NSYMM32              |
|                                                                          | 250  | 200  | 150 | 1 | NSYCRN252150P             | NSYCRN252150           | —                         | —                      | NSYMM2520            |
|                                                                          | 300  | 200  | 150 | 1 | —                         | —                      | NSYS3D3215P               | NSYS3D3215             | NSYMM32              |
|                                                                          | 300  | 250  | 150 | 1 | NSYCRN325150P             | NSYCRN325150           | NSYS3D32515P              | NSYS3D32515            | NSYMM3025            |
|                                                                          | 300  | 250  | 200 | 1 | NSYCRN325200P             | NSYCRN325200           | —                         | —                      | NSYMM3025            |
|                                                                          | 300  | 300  | 150 | 1 | NSYCRN33150P              | NSYCRN33150            | NSYS3D3315P               | NSYS3D3315             | NSYMM33              |
|                                                                          | 300  | 300  | 200 | 1 | NSYCRN33200P              | NSYCRN33200            | NSYS3D3320P               | NSYS3D3320             | NSYMM33              |
|                                                                          | 300  | 400  | 150 | 1 | —                         | —                      | NSYS3D3415P               | NSYS3D3415             | NSYMM43              |
|                                                                          | 300  | 400  | 200 | 1 | —                         | NSYCRN34200            | NSYS3D3420P               | NSYS3D3420             | NSYMM43              |
|                                                                          | 300  | 450  | 150 | 1 | —                         | NSYCRN345150           | —                         | —                      | NSYMM3045            |
|                                                                          | 400  | 300  | 150 | 1 | NSYCRN43150P              | NSYCRN43150            | NSYS3D4315P               | NSYS3D4315             | NSYMM43              |
|                                                                          | 400  | 300  | 200 | 1 | NSYCRN43200P              | NSYCRN43200            | NSYS3D4320P               | NSYS3D4320             | NSYMM43              |
|                                                                          | 400  | 400  | 200 | 1 | NSYCRN44200P              | NSYCRN44200            | NSYS3D4420P               | NSYS3D4420             | NSYMM44              |
|                                                                          | 400  | 600  | 200 | 1 | —                         | —                      | NSYS3D4620P               | NSYS3D4620             | NSYMM64              |
|                                                                          | 400  | 600  | 250 | 1 | NSYCRN46250P              | NSYCRN46250            | NSYS3D4625P               | NSYS3D4625             | NSYMM64              |
|                                                                          | 400  | 600  | 300 | 1 | —                         | NSYCRN46300            | —                         | —                      | NSYMM64              |
|                                                                          | 500  | 300  | 200 | 1 | —                         | —                      | NSYS3D5320P               | NSYS3D5320             | NSYMM53              |
|                                                                          | 500  | 400  | 150 | 1 | NSYCRN54150P              | NSYCRN54150            | —                         | —                      | NSYMM54              |
|                                                                          | 500  | 400  | 200 | 1 | NSYCRN54200P              | NSYCRN54200            | NSYS3D5420P               | NSYS3D5420             | NSYMM54              |
|                                                                          | 500  | 400  | 250 | 1 | NSYCRN54250P              | NSYCRN54250            | NSYS3D5425P               | NSYS3D5425             | NSYMM54              |
|                                                                          | 500  | 500  | 200 | 1 | —                         | —                      | NSYS3D5520P               | NSYS3D5520             | NSYMM55              |
|                                                                          | 500  | 500  | 250 | 1 | NSYCRN55250P              | NSYCRN55250            | NSYS3D5525P               | NSYS3D5525             | NSYMM55              |
|                                                                          | 600  | 400  | 150 | 1 | NSYCRN64150P              | NSYCRN64150            | —                         | —                      | NSYMM64              |
|                                                                          | 600  | 400  | 200 | 1 | NSYCRN64200P              | NSYCRN64200            | NSYS3D6420P               | NSYS3D6420             | NSYMM64              |
|                                                                          | 600  | 400  | 250 | 1 | NSYCRN64250P              | NSYCRN64250            | NSYS3D6425P               | NSYS3D6425             | NSYMM64              |
|                                                                          | 600  | 500  | 150 | 1 | NSYCRN65150P              | NSYCRN65150            | —                         | —                      | NSYMM65              |
|                                                                          | 600  | 500  | 200 | 1 | NSYCRN65200P              | NSYCRN65200            | —                         | —                      | NSYMM65              |
|                                                                          | 600  | 500  | 250 | 1 | NSYCRN65250P              | NSYCRN65250            | NSYS3D6525P               | NSYS3D6525             | NSYMM65              |
|                                                                          | 600  | 600  | 200 | 1 | NSYCRN66200P              | NSYCRN66200            | NSYS3D6620P               | NSYS3D6620             | NSYMM66              |
|                                                                          | 600  | 600  | 250 | 1 | NSYCRN66250P              | NSYCRN66250            | NSYS3D6625P               | NSYS3D6625             | NSYMM66              |
|                                                                          | 600  | 600  | 300 | 1 | NSYCRN66300P              | NSYCRN66300            | NSYS3D6630P               | NSYS3D6630             | NSYMM66              |
|                                                                          | 600  | 600  | 400 | 1 | —                         | —                      | NSYS3D6640P               | NSYS3D6640             | NSYMM66              |
|                                                                          | 600  | 800  | 300 | 1 | —                         | NSYCRN68300            | NSYS3D6830P               | NSYS3D6830             | NSYMM86              |
|                                                                          | 700  | 500  | 200 | 1 | NSYCRN75200P              | NSYCRN75200            | —                         | —                      | NSYMM75              |
|                                                                          | 700  | 500  | 250 | 1 | NSYCRN75250P              | NSYCRN75250            | NSYS3D7525P               | NSYS3D7525             | NSYMM75              |
|                                                                          | 800  | 600  | 200 | 1 | NSYCRN86200P              | NSYCRN86200            | NSYS3D8620P               | NSYS3D8620             | NSYMM86              |
|                                                                          | 800  | 600  | 250 | 1 | NSYCRN86250P              | NSYCRN86250            | NSYS3D8625P               | NSYS3D8625             | NSYMM86              |
|                                                                          | 800  | 600  | 300 | 1 | NSYCRN86300P              | NSYCRN86300            | NSYS3D8630P               | NSYS3D8630             | NSYMM86              |
|                                                                          | 800  | 600  | 400 | 1 | —                         | NSYCRN86400            | NSYS3D8640P               | NSYS3D8640             | NSYMM86              |
|                                                                          | 800  | 800  | 200 | 1 | NSYCRN88200P              | NSYCRN88200            | —                         | —                      | NSYMM88              |
|                                                                          | 800  | 800  | 250 | 1 | —                         | —                      | NSYS3D8825P               | NSYS3D8825             | NSYMM88              |
|                                                                          | 800  | 800  | 300 | 1 | NSYCRN88300P              | NSYCRN88300            | NSYS3D8830P               | NSYS3D8830             | NSYMM88              |
|                                                                          | 800  | 1000 | 300 | 1 | —                         | —                      | NSYS3D81030P              | NSYS3D81030            | NSYMM108             |
|                                                                          | 800  | 1000 | 300 | 2 | —                         | NSYCRN810300D          | —                         | —                      | NSYMM108             |
|                                                                          | 800  | 1200 | 300 | 2 | —                         | NSYCRN812300D          | NSYS3D81230DP             | NSYS3D81230D           | NSYMM128             |
|                                                                          | 1000 | 600  | 250 | 1 | NSYCRN106250P             | NSYCRN106250           | NSYS3D10625P              | NSYS3D10625            | NSYMM106             |
|                                                                          | 1000 | 600  | 300 | 1 | NSYCRN106300P             | NSYCRN106300           | NSYS3D10630P              | NSYS3D10630            | NSYMM106             |
|                                                                          | 1000 | 600  | 400 | 1 | —                         | NSYCRN106400           | NSYS3D10640P              | NSYS3D10640            | NSYMM106             |
|                                                                          | 1000 | 800  | 250 | 1 | NSYCRN108250P             | NSYCRN108250           | NSYS3D10825P              | NSYS3D10825            | NSYMM108             |
|                                                                          | 1000 | 800  | 300 | 1 | NSYCRN108300P             | NSYCRN108300           | NSYS3D10830P              | NSYS3D10830            | NSYMM108             |
|                                                                          | 1000 | 800  | 400 | 1 | —                         | NSYCRN108400           | NSYS3D10840P              | NSYS3D10840            | NSYMM108             |
|                                                                          | 1000 | 1000 | 300 | 1 | —                         | —                      | NSYS3D101030P             | NSYS3D101030           | NSYMM1010            |
|                                                                          | 1000 | 1000 | 300 | 2 | —                         | NSYCRN1010300D         | —                         | —                      | NSYMM1010            |
|                                                                          | 1000 | 1200 | 300 | 2 | —                         | NSYCRN1012300D         | NSYS3D101230DP            | NSYS3D101230D          | NSYMM1210            |
|                                                                          | 1000 | 1200 | 400 | 2 | —                         | NSYCRN1012400D         | NSYS3D101240DP            | NSYS3D101240D          | NSYMM1210            |
|                                                                          | 1200 | 600  | 300 | 1 | —                         | NSYCRN126300           | NSYS3D12630P              | NSYS3D12630            | NSYMM126             |
|                                                                          | 1200 | 600  | 400 | 1 | —                         | NSYCRN126400           | NSYS3D12640P              | NSYS3D12640            | NSYMM126             |
|                                                                          | 1200 | 800  | 300 | 1 | —                         | NSYCRN128300           | NSYS3D12830P              | NSYS3D12830            | NSYMM128             |
|                                                                          | 1200 | 800  | 400 | 1 | —                         | NSYCRN128400           | NSYS3D12840P              | NSYS3D12840            | NSYMM128             |
|                                                                          | 1200 | 1000 | 300 | 1 | —                         | —                      | NSYS3D121030P             | NSYS3D121030           | NSYMM1210            |
|                                                                          | 1200 | 1000 | 300 | 2 | —                         | NSYCRN1210300D         | —                         | —                      | NSYMM1210            |
|                                                                          | 1200 | 1000 | 400 | 2 | —                         | NSYCRN1210400D         | NSYS3D121040DP            | NSYS3D121040D          | NSYMM1210            |
|                                                                          | 1200 | 1200 | 300 | 2 | —                         | NSYCRN1212300D         | NSYS3D121230DP            | NSYS3D121230D          | NSYMM1212            |
|                                                                          | 1200 | 1200 | 400 | 2 | —                         | NSYCRN1212400D         | NSYS3D121240DP            | NSYS3D121240D          | NSYMM1212            |
|                                                                          | 1400 | 1000 | 300 | 2 | —                         | NSYCRN1410300D         | NSYS3D141030DP            | NSYS3D141030D          | NSYMM1410            |

(1) Multi-purpose enclosures are empty enclosures meeting the majority of application requirements. The Spacial S3D offer also comprises enclosures for specific applications, including electromagnetic compatibility (EMC), Voice/Data/Image (VDI), human-machine interface (HMI), modular distribution, outdoor installation, and hazardous environments (ATEX, seismic, or nuclear). In order to check the availability of this range in your country, please contact your local Schneider Electric representative.

(2) In order to check the availability of this range in your country, please contact your local Schneider Electric representative.

# Thalassa insulating industrial boxes and wall-mounting enclosures



## Thalassa TBS - TBP insulating industrial boxes

Degree of protection: IP66. Mechanical protection: IK07 (ABS boxes) and IK08 (PC boxes). Color: RAL7035 light gray

| Material                                            |     |     |     | ABS          |                   | PC           |                   |
|-----------------------------------------------------|-----|-----|-----|--------------|-------------------|--------------|-------------------|
| Type of cover                                       |     |     |     | Opaque cover | Transparent cover | Opaque cover | Transparent cover |
| Reference according to dimensions (H x W x D) in mm | 74  | 74  | 54  | NSYTBS775    | —                 | NSYTBP775    | —                 |
|                                                     | 89  | 89  | 54  | NSYTBS885    | —                 | NSYTBP885    | —                 |
|                                                     | 116 | 74  | 62  | NSYTBS1176   | —                 | NSYTBP1176   | —                 |
|                                                     | 116 | 116 | 62  | NSYTBS11116  | —                 | NSYTBP11116  | —                 |
|                                                     | 138 | 93  | 72  | NSYTBS1397   | NSYTBS1397T       | NSYTBP1397   | NSYTBP1397T       |
|                                                     | 164 | 121 | 87  | NSYTBS16128  | NSYTBS16128T      | NSYTBP16128  | NSYTBP16128T      |
|                                                     | 192 | 121 | 87  | NSYTBS19128  | NSYTBS19128T      | NSYTBP19128  | NSYTBP19128T      |
|                                                     | 192 | 164 | 87  | NSYTBS19168  | NSYTBS19168T      | NSYTBP19168  | NSYTBP19168T      |
|                                                     | 241 | 194 | 87  | NSYTBS24198  | NSYTBS24198T      | NSYTBP24198  | NSYTBP24198T      |
|                                                     | 241 | 194 | 107 | NSYTBS241910 | NSYTBS241910T     | NSYTBP241910 | NSYTBP241910T     |
|                                                     | 291 | 241 | 88  | NSYTBS29248  | NSYTBS29248T      | NSYTBP29248  | NSYTBP29248T      |
|                                                     | 291 | 241 | 128 | NSYTBS292412 | NSYTBS292412T     | NSYTBP292412 | NSYTBP292412T     |
|                                                     | 341 | 291 | 128 | NSYTBS342912 | NSYTBS342912T     | NSYTBP342912 | NSYTBP342912T     |



## Thalassa PLS polyester industrial boxes

Degree of protection: IP66. Mechanical protection: IK09. Color: RAL7035 light gray

| Material                                            |     |     |     | Polyester            |                 |                        |
|-----------------------------------------------------|-----|-----|-----|----------------------|-----------------|------------------------|
| Type of cover                                       |     |     |     | Transparent PC cover | Opaque PC cover | Opaque polyester cover |
| Reference according to dimensions (H x W x D) in mm | 180 | 270 | 180 | NSYPLS1827G          | NSYPLSC1827G    | NSYPLSP1827G           |
|                                                     | 270 | 270 | 180 | NSYPLS2727G          | NSYPLSC2727G    | NSYPLSP2727G           |
|                                                     | 270 | 270 | 230 | NSYPLS2727AG         | NSYPLSC2727AG   | —                      |
|                                                     | 270 | 360 | 180 | NSYPLS2736G          | NSYPLSC2736G    | NSYPLSP2736G           |
|                                                     | 270 | 360 | 230 | NSYPLS2736AG         | NSYPLSC2736AG   | —                      |
|                                                     | 270 | 540 | 180 | NSYPLS2754G          | NSYPLSC2754G    | NSYPLSP2754G           |
|                                                     | 270 | 540 | 230 | NSYPLS2754AG         | NSYPLSC2754AG   | —                      |
|                                                     | 360 | 360 | 180 | NSYPLS3636G          | NSYPLSC3636G    | NSYPLSP3636G           |
|                                                     | 360 | 540 | 180 | NSYPLS3654G          | NSYPLSC3654G    | NSYPLSP3654G           |
|                                                     | 360 | 540 | 230 | NSYPLS3654AG         | NSYPLSC3654AG   | —                      |
|                                                     | 360 | 720 | 230 | NSYPLS3672AG         | NSYPLSC3672AG   | —                      |
|                                                     | 540 | 540 | 180 | NSYPLS5454G          | NSYPLSC5454G    | NSYPLSP5454G           |
|                                                     | 540 | 540 | 230 | NSYPLS5454AG         | NSYPLSC5454AG   | —                      |
|                                                     | 540 | 720 | 230 | NSYPLS5472AG         | NSYPLSC5472AG   | —                      |



## Thalassa PLM polyester wall-mounting enclosures

Degree of protection: IP66. Mechanical protection: IK10 (IK08 for transparent doors). Color: RAL7035 light gray

| Material                                            |      |     |     | ABS/PC     |                    | Polyester   |                    |
|-----------------------------------------------------|------|-----|-----|------------|--------------------|-------------|--------------------|
| Type of door                                        |      |     |     | Plain door | Transparent (IK08) | Plain door  | Transparent (IK08) |
| Reference according to dimensions (H x W x D) in mm | 310  | 215 | 160 | NSYPLM32G  | NSYPLM32TG         | —           | —                  |
|                                                     | 308  | 255 | 160 | —          | —                  | NSYPLM3025G | NSYPLM3025TG       |
|                                                     | 430  | 330 | 200 | —          | —                  | NSYPLM43G   | NSYPLM43TG         |
|                                                     | 530  | 430 | 200 | —          | —                  | NSYPLM54G   | NSYPLM54TG         |
|                                                     | 647  | 436 | 250 | —          | —                  | NSYPLM64G   | NSYPLM64TG         |
|                                                     | 747  | 536 | 300 | —          | —                  | NSYPLM75G   | NSYPLM75TG         |
|                                                     | 847  | 636 | 300 | —          | —                  | NSYPLM86G   | NSYPLM86TG         |
|                                                     | 1056 | 852 | 350 | —          | —                  | NSYPLM108G  | NSYPLM108TG        |
|                                                     | —    | —   | —   | —          | —                  | —           | —                  |
|                                                     | —    | —   | —   | —          | —                  | —           | —                  |

# Lighting accessories and ClimaSys ventilation systems



## LED lamps

| Type of lamp   | Cost-effective LED lamps |             |                | Portable LED lamps |
|----------------|--------------------------|-------------|----------------|--------------------|
| Voltage (V)    | 120/230 AC               |             | 24/48 DC       | 120/230 AC         |
| Frequency (Hz) | 50 - 60                  |             | —              | 50 - 60            |
| Power (W)      | 5                        | 10          | 5              | 10                 |
| Power factor   | 0.8                      | 0.9         | 1              | 0.5                |
| Lumens (lm)    | 500                      | 1100        | 470            | 1100               |
| Reference      | NSYLAMT5LD1              | NSYLAMT5LD2 | NSYLAMT5LD1VDC | NSYLAMPORLTD       |



| Type of lamp   |                        |     | Multi-fixing LED lamps and power cables |           |           |                |                |              |                                  |  |
|----------------|------------------------|-----|-----------------------------------------|-----------|-----------|----------------|----------------|--------------|----------------------------------|--|
| Voltage (V)    |                        |     | 120/230 AC                              |           | 120 AC    |                | 24/48 DC       |              | 230 AC                           |  |
| Frequency (Hz) |                        |     | 50 - 60                                 |           |           |                |                |              |                                  |  |
| Power (W)      |                        |     | 10                                      |           |           |                |                |              |                                  |  |
| Lumens (lm)    |                        |     | 640                                     |           |           |                |                |              |                                  |  |
| Standards      |                        |     | IEC                                     |           |           | UL             |                | IEC/UL       |                                  |  |
| Type of socket |                        |     | SCHUKO                                  | UTE       | BRITISH   | USA            | Without socket |              |                                  |  |
| Reference      | LED lamps              |     | NSYLAMLDS                               | NSYLAMLDF | NSYLAMLDB | NSYLAMLDU      | NSYLAMLDD      | NSYLAMLDDVDC | NSYLAMLDD with presence detector |  |
|                | Power cables           | IEC | NSYLAM3M (1)                            |           |           | —              | NSYLAM3M (1)   | NSYLAM3MDC   | NSYLAM3M (1)                     |  |
|                |                        | UL  | —                                       |           |           | NSYLAM3MUL (1) | NSYLAM3MUL (1) | NSYLAM3MDCUL | NSYLAM3MUL (1)                   |  |
|                | Inter-connexion cables | IEC | NSYLAM1M (1)                            |           |           | —              | NSYLAM1M (1)   | —            | NSYLAM1M (1)                     |  |

(1) For orange cables, add N to the end of the reference (example: NSYLAM3MN).



## ClimaSys CV ventilation systems

Degree of protection: IP54

Color: RAL 7035 light gray

| Fan flow (m³/h) (2) | Voltage (V) | Fan reference   | Outlet grid reference |
|---------------------|-------------|-----------------|-----------------------|
| 38                  | 115         | NSYCVF38M115PF  | NSYCAG92LPF           |
|                     | 230         | NSYCVF38M230PF  | NSYCAG92LPF           |
| 85                  | 115         | NSYCVF85M115PF  | NSYCAG125LPF          |
|                     | 230         | NSYCVF85M230PF  | NSYCAG125LPF          |
| 165                 | 115         | NSYCVF165M115PF | NSYCAG223LPF          |
|                     | 230         | NSYCVF165M230PF | NSYCAG223LPF          |
| 300                 | 115         | NSYCVF300M115PF | NSYCAG223LPF          |
|                     | 230         | NSYCVF300M230PF | NSYCAG223LPF          |
| 560                 | 115         | NSYCVF560M115PF | NSYCAG291LPF          |
|                     | 230         | NSYCVF560M230PF | NSYCAG291LPF          |
| 850                 | 115         | NSYCVF850M115PF | NSYCAG291LPF          |
|                     | 230         | NSYCVF850M230PF | NSYCAG291LPF          |
|                     | 400         | NSYCVF850M400PF | NSYCAG291LPF          |

## ClimaSys CV smart ventilation systems (1)

Degree of protection: IP54

Color: RAL 9005 semi-transparent black

| Fan flow (m³/h) (2) | Voltage (V) | Smart fan reference (3) | Smart grid reference (4) |
|---------------------|-------------|-------------------------|--------------------------|
| 34                  | 115         | —                       | NSYCAG92DG               |
|                     | 230         | NSYCVF38M230DG          | NSYCAG92DG               |
| 74                  | 115         | —                       | NSYCAG125DG              |
|                     | 230         | NSYCVF85M230DG          | NSYCAG125DG              |
| 142                 | 115         | —                       | NSYCAG223DG              |
|                     | 230         | NSYCVF165M230DG         | NSYCAG223DG              |
| 259                 | 115         | —                       | NSYCAG223DG              |
|                     | 230         | NSYCVF300M230DG         | NSYCAG223DG              |
| 502                 | 115         | —                       | NSYCAG291DG              |
|                     | 230         | NSYCVF560M230DG         | NSYCAG291DG              |
| 522                 | 115         | —                       | NSYCAG291DG              |
| 638                 | 115         | —                       | NSYCAG291DG              |
| 783                 | 230         | NSYCVF850M230DG         | NSYCAG291DG              |
| 731                 | 400         | NSYCVF850M400DG         | NSYCAG291DG              |

(1) Smart fan has to be connected to a controller to relay information and alarms (see table below).

(2) Free flow rate at 50 Hz.

(3) Supply of NSYCV●●●DG fan includes: 1 fan sensor (rpm&Tor measurement), 1 dirt filter sensor.

(4) Supply of NSYCAG●●●DG grid includes: 1 dirt filter sensor.



## ClimaSys smart ventilation controllers

| Voltage (V)  | Filterstat controller reference | Thermal hub reference |
|--------------|---------------------------------|-----------------------|
| 30 VAC/VDC   | NSYCCOFST30V                    | NSYCCOFSEM8U1         |
| 90-250 VAC   | NSYCCOFST90250V                 | NSYCCOFSEM8U2         |
| No. of ports | 4                               | 8                     |

## Filterstat communication cable

| Black unshielded cable with 2 connectors at each end (material: PVC) |                  |
|----------------------------------------------------------------------|------------------|
| Length (mm)                                                          | Cable references |
| 500                                                                  | —                |
| 1000                                                                 | NSYCCA100MFST    |
| 1500                                                                 | —                |
| 2000                                                                 | NSYCCA200MFST    |
| 3000                                                                 | NSYCCA300MFST    |
| 4000                                                                 | NSYCCA400MFST    |
| 5000                                                                 | NSYCCA500MFST    |



# ClimaSys thermal management systems



1

ClimaSys CC mechanical thermostats

|                 |                                         |               |                           |               |
|-----------------|-----------------------------------------|---------------|---------------------------|---------------|
| Type of control | Control of a resistance heater or alarm |               | Control of a fan or alarm |               |
| Setting range   | 0...+60 °C                              | +32...+140 °F | 0...+60 °C                | +32...+140 °F |
| Reference       | NSYCCOTHC                               | NSYCCOTHCF    | NSYCCOTH0                 | NSYCCOTH0F    |

2

ClimaSys CC electronic thermostats, hygrotherm and hygostat with LED display

|                 |                                                   |                                                      |                                |
|-----------------|---------------------------------------------------|------------------------------------------------------|--------------------------------|
| Type of control | Electronic temperature controller                 | Electronic temperature and humidity controller       | Electronic humidity controller |
| Setting range   | -40 °C...+80 °C                                   |                                                      |                                |
| Reference       | NSYCCOTH30VID<br>NSYCCOTH120VID<br>NSYCCOTH230VID | NSYCCOHYT30VID<br>NSYCCOHYT120VID<br>NSYCCOHYT230VID | NSYCCOHY230VID                 |

3

ClimaSys CR insulated resistance heaters, 2 poles

|             |             |             |             |             |
|-------------|-------------|-------------|-------------|-------------|
| Power (W)   | 10          |             | 20          |             |
| Voltage (V) | 110-250 AC  | 12-24 DC    | 110-250 AC  | 12-24 DC    |
| Reference   | NSYCR10WU2C | NSYCR10WU1C | NSYCR20WU2C | NSYCR20WU1C |

4

ClimaSys CR aluminum resistance heaters

|             |            |            |            |            |
|-------------|------------|------------|------------|------------|
| Power (W)   | 10         |            | 20         |            |
| Voltage (V) | 12-24 DC   | 110-250 AC | 12-24 DC   | 110-250 AC |
| Reference   | NSYCR10WU1 | NSYCR10WU2 | NSYCR20WU1 | NSYCR20WU2 |
| Power (W)   | 20         | 55         | 55         | 55         |
| Voltage (V) | 270-420 AC | 12-24 DC   | 110-250 AC | 270-420 AC |
| Reference   | NSYCR20WU3 | NSYCR55WU1 | NSYCR55WU2 | NSYCR55WU3 |

5

ClimaSys CRS ultra-thin resistance heaters

|                    |        |               |        |               |        |               |
|--------------------|--------|---------------|--------|---------------|--------|---------------|
| Power (W)          | 10     |               | 25     | 50            |        |               |
| Voltage (V)        | 120 AC | 240 AC        | 120 AC | 240 AC        | 120 AC | 240 AC        |
| Inrush current (A) | 0.08   | 0.04          | 0.21   | 0.10          | 0.42   | 0.21          |
| Height (mm)        | 130    | 130           | 130    | 130           | 200    | 200           |
| Width (mm)         | 250    | 250           | 250    | 250           | 320    | 320           |
| Depth (mm)         | 1.6    | 1.6           | 1.6    | 1.6           | 1.6    | 1.6           |
| Reference          | —      | NSYCRS10W240V | —      | NSYCRS25W240V | —      | NSYCRS50W240V |

## Digital Offer

### ProClima

Find the best thermal solution for your enclosure  
Select and calculate your thermal management requirements, according to the environment and the electrical/electronic devices installed inside the enclosure.



### Product Selector

#### Fast, error-free accessory selection

Our Product Selector allows you to find your enclosure and select the accessories you need in a matter of few clicks. Move the selection to your se.com product list to compare, see the prices and order. [Want to know more about product selector?](#)



### Custom Enclosure Configurator



The Custom Enclosure Configurator allows you to adjust the enclosure to your specifications in a couple of minutes. It's a convenient, simple-to-use tool that gives you a wide variety of options to choose from, from different cut out shapes to paint colors and accessory fittings.

To access the configurator, scan the QR code or go to <https://custom-enclosures.se.com/>



**Note:** For more detailed information on our products, see the Enclosures catalog on our website [www.se.com/enclosures](http://www.se.com/enclosures).

# mySchneider, your personalized digital experience

Access an all-in-one customized online experience and benefit from tailored business services, resources, and tools to efficiently support your business operations.

- **Efficiency:** In just a few clicks, find all the information and support you need to get the job done.
- **Simplicity:** Use a single login to access all business services, in one place, available 24/7. You no longer need to log in to multiple platforms.
- **Personalization:** Benefit from content, tools, and business services tailored to your activity, and customize your landing page based on your preferences.

## Watch the How-to Videos



### Order management

- > [Select Products and Add to Cart](#)
- > [Check for Products' Price and Availability](#)
- > [Order Products with Generic Commercial References](#)



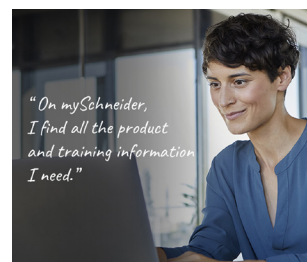
### Product information

- > [Find a Product Data Sheet and Related Documents](#)
- > [Select Products and Add to Cart](#)
- > [Stay Up to Date on the Status of My Products](#)



### Support

- > [Get Quicker Answers Thanks to Online Support](#)



### Training

- > [Access Trainings Dedicated to My Activity](#)

[Create your account](#)

Life Is On

**Schneider**  
Electric

## Notes



Life Is On



Learn more about automation and control solutions at [www.se.com](http://www.se.com)

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Schneider Electric Industries SAS  
35, rue Joseph Monier - CS 30323  
F92506 Rueil-Malmaison Cedex