

**On-Off switch, P3, 63 A, service distribution board mounting, 3 pole,  
Emergency switching off function, with red thumb grip and yellow front  
plate, Lockable in the 0 (Off) position**

**Part no.** P3-63/IVS-RT  
**Catalog No.** 045845

Similar to illustration

## Delivery program

|                                                    |                |     |                                                                                 |
|----------------------------------------------------|----------------|-----|---------------------------------------------------------------------------------|
| Product range                                      |                |     | On-Off switch                                                                   |
| Part group reference                               |                |     | P3                                                                              |
| Stop Function                                      |                |     | Emergency switching off function                                                |
|                                                    |                |     | with red thumb grip and yellow front plate                                      |
| Information about equipment supplied               |                |     | Auxiliary contact or neutral conductor fitted by user.                          |
| Number of poles                                    |                |     | 3 pole                                                                          |
| <b>Auxiliary contacts</b>                          |                |     |                                                                                 |
|                                                    |                | N/O | 0                                                                               |
|                                                    |                | N/C | 0                                                                               |
| Locking facility                                   |                |     | Lockable in the 0 (Off) position                                                |
| Degree of Protection                               |                |     | Front IP30                                                                      |
| Design                                             |                |     | service distribution board mounting                                             |
| <b>Motor rating AC-23A, 50 - 60 Hz</b>             |                |     |                                                                                 |
| 400 V                                              | P              | kW  | 30                                                                              |
| Rated uninterrupted current                        | I <sub>u</sub> | A   | 63                                                                              |
| Note on rated uninterrupted current I <sub>u</sub> |                |     | Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section. |

## Technical data

### General

|                                       |                  |      |                                                                                                  |
|---------------------------------------|------------------|------|--------------------------------------------------------------------------------------------------|
| Standards                             |                  |      | IEC/EN 60947, VDE 0660, IEC/EN 60204, CSA, UL<br>Switch-disconnector according to IEC/EN 60947-3 |
| Climatic proofing                     |                  |      | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30                   |
| Ambient temperature                   |                  |      |                                                                                                  |
| Open                                  |                  | °C   | -25 - +50                                                                                        |
| Enclosed                              |                  | °C   | -25 - +40                                                                                        |
| Overvoltage category/pollution degree |                  |      | III/3                                                                                            |
| Rated impulse withstand voltage       | U <sub>imp</sub> | V AC | 6000                                                                                             |
| Mechanical shock resistance           |                  | g    | 15                                                                                               |
| Mounting position                     |                  |      | As required                                                                                      |

### Contacts

|                                                    |                |      |                                                                                 |
|----------------------------------------------------|----------------|------|---------------------------------------------------------------------------------|
| Mechanical variables                               |                |      |                                                                                 |
| Number of poles                                    |                |      | 3 pole                                                                          |
| Auxiliary contacts                                 |                |      |                                                                                 |
|                                                    |                | N/O  | 0                                                                               |
|                                                    |                | N/C  | 0                                                                               |
| Electrical characteristics                         |                |      |                                                                                 |
| Rated operational voltage                          | U <sub>e</sub> | V AC | 690                                                                             |
| Rated uninterrupted current                        | I <sub>u</sub> | A    | 63                                                                              |
| Note on rated uninterrupted current I <sub>u</sub> |                |      | Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section. |
| Load rating with intermittent operation, class 12  |                |      |                                                                                 |

|                                                            |                 |                  |                                    |
|------------------------------------------------------------|-----------------|------------------|------------------------------------|
| AB 25 % DF                                                 |                 | x I <sub>e</sub> | 2                                  |
| AB 40 % DF                                                 |                 | x I <sub>e</sub> | 1.6                                |
| AB 60 % DF                                                 |                 | x I <sub>e</sub> | 1.3                                |
| Short-circuit rating                                       |                 |                  |                                    |
| Fuse                                                       |                 | A gG/gL          | 80                                 |
| Rated short-time withstand current (1 s current)           | I <sub>cw</sub> | A <sub>rms</sub> | 1260                               |
| Note on rated short-time withstand current I <sub>cw</sub> |                 |                  | Current for a time of 1 second     |
| Rated conditional short-circuit current                    | I <sub>q</sub>  | kA               | 4 (Load side)<br>100 (Supply side) |

## Switching capacity

|                                                 |                |                   |       |
|-------------------------------------------------|----------------|-------------------|-------|
| cos φ rated making capacity as per IEC 60947-3  |                | A                 | 800   |
| Rated breaking capacity cos φ to IEC 60947-3    |                | A                 |       |
| 230 V                                           |                | A                 | 640   |
| 400/415 V                                       |                | A                 | 600   |
| 500 V                                           |                | A                 | 590   |
| 690 V                                           |                | A                 | 340   |
| Safe isolation to EN 61140                      |                |                   |       |
| between the contacts                            |                | V AC              | 440   |
| Current heat loss per contact at I <sub>e</sub> |                | W                 | 4.5   |
| Lifespan, mechanical                            | Operations     | x 10 <sup>6</sup> | > 0.1 |
| Maximum operating frequency                     | Operations/h   |                   | 1200  |
| AC                                              |                |                   |       |
| AC-3                                            |                |                   |       |
| Rating, motor load switch                       | P              | kW                |       |
| 220 V 230 V                                     | P              | kW                | 15    |
| 400 V 415 V                                     | P              | kW                | 30    |
| 500 V                                           | P              | kW                | 30    |
| 690 V                                           | P              | kW                | 30    |
| Rated operational current motor load switch     |                |                   |       |
| 230 V                                           | I <sub>e</sub> | A                 | 51    |
| 400V 415 V                                      | I <sub>e</sub> | A                 | 55    |
| 500 V                                           | I <sub>e</sub> | A                 | 44    |
| 690 V                                           | I <sub>e</sub> | A                 | 22.1  |
| AC-23A                                          |                |                   |       |
| Motor rating AC-23A, 50 - 60 Hz                 | P              | kW                |       |
| 230 V                                           | P              | kW                | 18.5  |
| 400 V 415 V                                     | P              | kW                | 30    |
| 500 V                                           | P              | kW                | 45    |
| 690 V                                           | P              | kW                | 55    |
| Rated operational current motor load switch     |                |                   |       |
| 230 V                                           | I <sub>e</sub> | A                 | 63    |
| 400 V 415 V                                     | I <sub>e</sub> | A                 | 63    |
| 500 V                                           | I <sub>e</sub> | A                 | 63    |
| 690 V                                           | I <sub>e</sub> | A                 | 63    |
| DC                                              |                |                   |       |
| DC-1, Load-break switches L/R = 1 ms            |                |                   |       |
| Rated operational current                       | I <sub>e</sub> | A                 | 63    |
| Voltage per contact pair in series              |                | V                 | 60    |
| DC-23A, motor load switch L/R = 15 ms           |                |                   |       |
| 24 V                                            |                |                   |       |
| Rated operational current                       | I <sub>e</sub> | A                 | 50    |
| Contacts                                        |                | Quantity          | 1     |
| 48 V                                            |                |                   |       |
| Rated operational current                       | I <sub>e</sub> | A                 | 50    |

|                                               |                   |                |                                                                  |
|-----------------------------------------------|-------------------|----------------|------------------------------------------------------------------|
| Contacts                                      |                   | Quantity       | 2                                                                |
| 60 V                                          |                   |                |                                                                  |
| Rated operational current                     | I <sub>e</sub>    | A              | 50                                                               |
| Contacts                                      |                   | Quantity       | 2                                                                |
| 120 V                                         |                   |                |                                                                  |
| Rated operational current                     | I <sub>e</sub>    | A              | 25                                                               |
| Contacts                                      |                   | Quantity       | 3                                                                |
| Control circuit reliability at 24 V DC, 10 mA | Fault probability | H <sub>F</sub> | < 10 <sup>-5</sup> , < 1 failure in 100,000 switching operations |

Terminal capacities

|                                      |  |                 |                                  |
|--------------------------------------|--|-----------------|----------------------------------|
| Solid or stranded                    |  | mm <sup>2</sup> | 1 x (2,5 - 35)<br>2 x (2,5 - 10) |
| Flexible with ferrules to DIN 46228  |  | mm <sup>2</sup> | 1 x (1.5 - 25)<br>2 x (1.5 - 6)  |
| Terminal screw                       |  |                 | M5                               |
| Tightening torque for terminal screw |  | Nm              | 3                                |

Technical safety parameters:

|       |  |  |                                                         |
|-------|--|--|---------------------------------------------------------|
| Notes |  |  | B10 <sub>d</sub> values as per EN ISO 13849-1, table C1 |
|-------|--|--|---------------------------------------------------------|

Rating data for approved types

|                                          |                |       |                |
|------------------------------------------|----------------|-------|----------------|
| Contacts                                 |                |       |                |
| Rated operational voltage                | U <sub>e</sub> | V AC  | 600            |
| Rated uninterrupted current max.         |                |       |                |
| Main conducting paths                    |                |       |                |
| General use                              |                | A     | 60             |
| Auxiliary contacts                       |                |       |                |
| General Use                              | I <sub>U</sub> | A     | 10             |
| Pilot Duty                               |                |       | A 600<br>P 600 |
| Switching capacity                       |                |       |                |
| Maximum motor rating                     |                |       |                |
| Single-phase                             |                |       |                |
| 120 V AC                                 |                | HP    | 3              |
| 200 V AC                                 |                | HP    | 7.5            |
| 240 V AC                                 |                | HP    | 10             |
| Three-phase                              |                |       |                |
| 200 V AC                                 |                | HP    | 15             |
| 240 V AC                                 |                | HP    | 15             |
| 480 V AC                                 |                | HP    | 40             |
| 600 V AC                                 |                | HP    | 50             |
| Short Circuit Current Rating             |                | SCCR  |                |
| Basic Rating                             |                | kA    | 10             |
| max. Fuse                                |                | A     | 150            |
| Terminal capacity                        |                |       |                |
| Solid or flexible conductor with ferrule |                | AWG   | 14 - 2         |
| Terminal screw                           |                |       | M5             |
| Tightening torque                        |                | lb-in | 26.5           |

Design verification as per IEC/EN 61439

|                                                          |                   |    |     |
|----------------------------------------------------------|-------------------|----|-----|
| Technical data for design verification                   |                   |    |     |
| Rated operational current for specified heat dissipation | I <sub>n</sub>    | A  | 63  |
| Heat dissipation per pole, current-dependent             | P <sub>vid</sub>  | W  | 4.5 |
| Equipment heat dissipation, current-dependent            | P <sub>vid</sub>  | W  | 0   |
| Static heat dissipation, non-current-dependent           | P <sub>vs</sub>   | W  | 0   |
| Heat dissipation capacity                                | P <sub>diss</sub> | W  | 0   |
| Operating ambient temperature min.                       |                   | °C | -25 |
| Operating ambient temperature max.                       |                   | °C | 50  |
| IEC/EN 61439 design verification                         |                   |    |     |

|                                                                                                                        |  |  |                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------------------------------------------------------------------------------------------------------------|
| 10.2 Strength of materials and parts                                                                                   |  |  |                                                                                                                                  |
| 10.2.2 Corrosion resistance                                                                                            |  |  | Meets the product standard's requirements.                                                                                       |
| 10.2.3.1 Verification of thermal stability of enclosures                                                               |  |  | Meets the product standard's requirements.                                                                                       |
| 10.2.3.2 Verification of resistance of insulating materials to normal heat                                             |  |  | Meets the product standard's requirements.                                                                                       |
| 10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects |  |  | Meets the product standard's requirements.                                                                                       |
| 10.2.4 Resistance to ultra-violet (UV) radiation                                                                       |  |  | Meets the product standard's requirements.                                                                                       |
| 10.2.5 Lifting                                                                                                         |  |  | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.2.6 Mechanical impact                                                                                               |  |  | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.2.7 Inscriptions                                                                                                    |  |  | Meets the product standard's requirements.                                                                                       |
| 10.3 Degree of protection of ASSEMBLIES                                                                                |  |  | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.4 Clearances and creepage distances                                                                                 |  |  | Meets the product standard's requirements.                                                                                       |
| 10.5 Protection against electric shock                                                                                 |  |  | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.6 Incorporation of switching devices and components                                                                 |  |  | Does not apply, since the entire switchgear needs to be evaluated.                                                               |
| 10.7 Internal electrical circuits and connections                                                                      |  |  | Is the panel builder's responsibility.                                                                                           |
| 10.8 Connections for external conductors                                                                               |  |  | Is the panel builder's responsibility.                                                                                           |
| 10.9 Insulation properties                                                                                             |  |  |                                                                                                                                  |
| 10.9.2 Power-frequency electric strength                                                                               |  |  | Is the panel builder's responsibility.                                                                                           |
| 10.9.3 Impulse withstand voltage                                                                                       |  |  | Is the panel builder's responsibility.                                                                                           |
| 10.9.4 Testing of enclosures made of insulating material                                                               |  |  | Is the panel builder's responsibility.                                                                                           |
| 10.10 Temperature rise                                                                                                 |  |  | The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices. |
| 10.11 Short-circuit rating                                                                                             |  |  | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| 10.12 Electromagnetic compatibility                                                                                    |  |  | Is the panel builder's responsibility. The specifications for the switchgear must be observed.                                   |
| 10.13 Mechanical function                                                                                              |  |  | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |

## Technical data ETIM 8.0

|                                                                                                                                                                                                               |  |    |                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----|------------------------------------------|
| Low-voltage industrial components (EG000017) / Switch disconnecter (EC000216)                                                                                                                                 |  |    |                                          |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecl@ss10.0.1-27-37-14-03 [AKF060013]) |  |    |                                          |
| Version as main switch                                                                                                                                                                                        |  |    | No                                       |
| Version as maintenance-/service switch                                                                                                                                                                        |  |    | No                                       |
| Version as safety switch                                                                                                                                                                                      |  |    | No                                       |
| Version as emergency stop installation                                                                                                                                                                        |  |    | No                                       |
| Version as reversing switch                                                                                                                                                                                   |  |    | No                                       |
| Number of switches                                                                                                                                                                                            |  |    | 1                                        |
| Max. rated operation voltage Ue AC                                                                                                                                                                            |  | V  | 690                                      |
| Rated operating voltage                                                                                                                                                                                       |  | V  | 690 - 690                                |
| Rated permanent current Iu                                                                                                                                                                                    |  | A  | 63                                       |
| Rated permanent current at AC-23, 400 V                                                                                                                                                                       |  | A  | 63                                       |
| Rated permanent current at AC-21, 400 V                                                                                                                                                                       |  | A  | 63                                       |
| Rated operation power at AC-3, 400 V                                                                                                                                                                          |  | kW | 30                                       |
| Rated short-time withstand current Icw                                                                                                                                                                        |  | kA | 1.26                                     |
| Rated operation power at AC-23, 400 V                                                                                                                                                                         |  | kW | 30                                       |
| Switching power at 400 V                                                                                                                                                                                      |  | kW | 30                                       |
| Conditioned rated short-circuit current Iq                                                                                                                                                                    |  | kA | 100                                      |
| Number of poles                                                                                                                                                                                               |  |    | 3                                        |
| Number of auxiliary contacts as normally closed contact                                                                                                                                                       |  |    | 0                                        |
| Number of auxiliary contacts as normally open contact                                                                                                                                                         |  |    | 0                                        |
| Number of auxiliary contacts as change-over contact                                                                                                                                                           |  |    | 0                                        |
| Motor drive optional                                                                                                                                                                                          |  |    | No                                       |
| Motor drive integrated                                                                                                                                                                                        |  |    | No                                       |
| Voltage release optional                                                                                                                                                                                      |  |    | No                                       |
| Device construction                                                                                                                                                                                           |  |    | Built-in device fixed built-in technique |
| Suitable for floor mounting                                                                                                                                                                                   |  |    | Yes                                      |

|                                               |  |  |                  |
|-----------------------------------------------|--|--|------------------|
| Suitable for front mounting 4-hole            |  |  | No               |
| Suitable for front mounting centre            |  |  | No               |
| Suitable for distribution board installation  |  |  | Yes              |
| Suitable for intermediate mounting            |  |  | No               |
| Colour control element                        |  |  | Red              |
| Type of control element                       |  |  | Short thumb-grip |
| Interlockable                                 |  |  | No               |
| Type of electrical connection of main circuit |  |  | Screw connection |
| Degree of protection (IP), front side         |  |  | IP30             |
| Degree of protection (NEMA)                   |  |  | Other            |