

## Switch-disconnector, DCM, 63 A, 4 pole, With black rotary handle and drive shaft, Vertical connection

Part no. **DCM-63/4**  
 Catalog No. **1314006**

## Delivery program

|                                                    |                |     |                                                                                 |
|----------------------------------------------------|----------------|-----|---------------------------------------------------------------------------------|
| Product range                                      |                |     | Switch-disconnector<br>Main switch<br>maintenance switch                        |
| Part group reference                               |                |     | DCM                                                                             |
|                                                    |                |     | With black rotary handle and drive shaft                                        |
| Number of poles                                    |                |     | 4 pole                                                                          |
| <b>Auxiliary contacts</b>                          |                |     |                                                                                 |
|                                                    |                | N/O | 0                                                                               |
|                                                    |                | N/C | 0                                                                               |
| Notes                                              |                |     | 1 padlock, # 5 mm                                                               |
| Locking facility                                   |                |     | Lockable in the 0 (Off) position                                                |
| Degree of Protection                               |                |     | IP20                                                                            |
| Design                                             |                |     | surface 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. |
| Connection technique                               |                |     | Vertical connection                                                             |

## Technical data

## General

|                                       |                  |    |                                                                                         |
|---------------------------------------|------------------|----|-----------------------------------------------------------------------------------------|
| Standards                             |                  |    | IEC/EN 60947, VDE 0660, IEC/EN 60204<br>Switch-disconnector according to IEC/EN 60947-3 |
| Certifications                        |                  |    | CE, RoHs, KEMA, EAC, Lloyds                                                             |
| Ambient temperature                   |                  |    |                                                                                         |
| Operation                             | θ                | °C | -25 - +55                                                                               |
| Storage                               | θ                | °C | -30 - +80                                                                               |
| Overvoltage category/pollution degree |                  |    | III/3                                                                                   |
| Rated impulse withstand voltage       | U <sub>imp</sub> | kV | 6                                                                                       |
| Rated insulation voltage              | U <sub>i</sub>   | V  | 690                                                                                     |
| Mounting position                     |                  |    | As required                                                                             |

## Contacts

|                                                    |                |      |                                                                                 |
|----------------------------------------------------|----------------|------|---------------------------------------------------------------------------------|
| Mechanical variables                               |                |      |                                                                                 |
| Number of poles                                    |                |      | 4 pole                                                                          |
| Auxiliary contacts                                 |                |      |                                                                                 |
|                                                    |                | N/O  | 0                                                                               |
|                                                    |                | N/C  | 0                                                                               |
| Electrical characteristics                         |                |      |                                                                                 |
| Rated operational voltage                          | U <sub>e</sub> | V AC | 415                                                                             |
| 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. |
| Short-circuit rating                               |                |      |                                                                                 |
| fuse                                               |                |      | 50                                                                              |
| Rated conditional short-circuit current            | I <sub>q</sub> | kA   | 50                                                                              |

|                                                            |                  |                   |                                |
|------------------------------------------------------------|------------------|-------------------|--------------------------------|
| Breaking current                                           |                  | kA                | 7                              |
| max. let-through energy                                    |                  | kA <sup>2</sup> s | 12                             |
| Rated short-time withstand current (1 s current)           | I <sub>cw</sub>  | A <sub>rms</sub>  | 1500                           |
| Note on rated short-time withstand current I <sub>cw</sub> |                  |                   | Current for a time of 1 second |
| Rated short-circuit making capacity                        | I <sub>cm</sub>  | kA <sub>eff</sub> | 1.4                            |
| Heat dissipation per pole, current-dependent               | P <sub>vid</sub> | W                 | 1.3                            |

### Switching capacity

|                                                 |                |    |       |
|-------------------------------------------------|----------------|----|-------|
| Rated breaking capacity cos φ to IEC 60947-3    |                | A  |       |
| 400/415 V                                       |                | A  | 504   |
| Safe isolation to EN 61140                      |                |    |       |
| Current heat loss per contact at I <sub>g</sub> |                | W  | 3.9   |
| Lifespan, mechanical                            | Operations     |    | 10000 |
| AC                                              |                |    |       |
| AC-21A                                          |                |    |       |
| Rated operational current switch                |                |    |       |
| 400 V 415 V                                     | I <sub>e</sub> | A  | 63    |
| AC-22A                                          |                |    |       |
| Rated operational current switch                |                |    |       |
| 400 V 415 V                                     | I <sub>e</sub> | A  | 63    |
| AC-23A                                          |                |    |       |
| Rated operational current switch                |                |    |       |
| 400 V 415 V                                     | I <sub>e</sub> | A  | 63    |
| Motor rating AC-23A, 50 - 60 Hz                 | P              | kW |       |
| 400 V 415 V                                     | P              | kW | 30    |

### Terminal capacities

|                                      |  |                 |          |
|--------------------------------------|--|-----------------|----------|
| Solid                                |  | mm <sup>2</sup> | 2.5 - 16 |
| Flexible with ferrules to DIN 46228  |  | mm <sup>2</sup> |          |
| flexible                             |  | mm <sup>2</sup> | 1.5 - 25 |
| Stripping length                     |  | mm              | 14       |
| Tightening torque for terminal screw |  | Nm              | 2        |

### Technical safety parameters:

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

## 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  | 1.3                                                                |
| 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 | 55                                                                 |
| 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 (ecI@ss10.0.1-27-37-14-03 [AKF060013]) |  |    |                                          |
| Version as main switch                                                                                                                                                                                        |  |    | Yes                                      |
| Version as maintenance-/service switch                                                                                                                                                                        |  |    | Yes                                      |
| 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  | 415                                      |
| Rated operating voltage                                                                                                                                                                                       |  | V  | 415 - 415                                |
| 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 | 0                                        |
| Rated short-time withstand current Icw                                                                                                                                                                        |  | kA | 1.5                                      |
| Rated operation power at AC-23, 400 V                                                                                                                                                                         |  | kW | 63                                       |
| Switching power at 400 V                                                                                                                                                                                      |  | kW | 0                                        |
| Conditioned rated short-circuit current Iq                                                                                                                                                                    |  | kA | 0                                        |
| Number of poles                                                                                                                                                                                               |  |    | 4                                        |
| 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                                                                                                                                                                                        |  |    | Black                                    |
| Type of control element                                                                                                                                                                                       |  |    | Short thumb-grip                         |
| Interlockable                                                                                                                                                                                                 |  |    | No                                       |
| Type of electrical connection of main circuit                                                                                                                                                                 |  |    | Screw connection                         |
| Degree of protection (IP), front side                                                                                                                                                                         |  |    | IP20                                     |
| Degree of protection (NEMA)                                                                                                                                                                                   |  |    | Other                                    |

