



**Switch-disconnector, 3 pole, 160 A, With red rotary handle and yellow locking ring, cylinder lock, surface mounting, in CI-K5 enclosure**

**Part no.** DMM-160/3/I5/C-R  
**Catalog No.** 172803  
**EL-Nummer (Norway)** 1405709

## Delivery program

|                                                    |                |     |                                                                                 |
|----------------------------------------------------|----------------|-----|---------------------------------------------------------------------------------|
| Product range                                      |                |     | Switch-disconnector<br>Main switch<br>maintenance switch                        |
| Part group reference                               |                |     | DMM                                                                             |
| Stop Function                                      |                |     | Emergency switching off function                                                |
| Information about equipment supplied               |                |     | With red rotary handle and yellow locking ring                                  |
| Notes                                              |                |     | auxiliary contact fitted by user.                                               |
| Number of poles                                    |                |     | 3 pole                                                                          |
| <b>Auxiliary contacts</b>                          |                |     |                                                                                 |
|                                                    |                | N/O | 0                                                                               |
|                                                    |                | N/C | 0                                                                               |
| locking arrangement                                |                |     | cylinder lock                                                                   |
| Degree of Protection                               |                |     | IP65                                                                            |
| Design                                             |                |     | surface mounting                                                                |
| Contact sequence                                   |                |     |                                                                                 |
| <b>Motor rating AC-23A, 50 - 60 Hz</b>             |                |     |                                                                                 |
| 400 V                                              | P              | kW  | 80                                                                              |
| Rated uninterrupted current                        | I <sub>u</sub> | A   | 160                                                                             |
| Note on rated uninterrupted current I <sub>u</sub> |                |     | Rated uninterrupted current I <sub>u</sub> is specified for max. cross-section. |

## Technical data

|                                       |   |    |                                                                                         |
|---------------------------------------|---|----|-----------------------------------------------------------------------------------------|
| <b>General</b>                        |   |    |                                                                                         |
| 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 - +60                                                                               |
| Storage                               | θ | °C | -40 - +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  | 1000        |
| 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                 | 160                                                                             |
| 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                                                       |                  |                   | 160                                                                             |
| Rated conditional short-circuit current                    | I <sub>q</sub>   | kA                | 415 V: 30<br>690 V: 50                                                          |
| Breaking current                                           |                  | kA                | 13.5                                                                            |
| max. let-through energy                                    |                  | kA <sup>2</sup> s | 86,9                                                                            |
| Rated short-time withstand current (1 s current)           | I <sub>cw</sub>  | A <sub>rms</sub>  | 2500                                                                            |
| Note on rated short-time withstand current I <sub>cw</sub> |                  |                   | Current for a time of 1 second                                                  |
| Heat dissipation per pole, current-dependent               | P <sub>vid</sub> | W                 | 7.4                                                                             |

## Switching capacity

|                                                 |                |    |       |
|-------------------------------------------------|----------------|----|-------|
| Rated breaking capacity cos φ to IEC 60947-3    |                | A  |       |
| 400/415 V                                       |                | A  | 1080  |
| 500 V                                           |                | A  | 528   |
| 690 V                                           |                | A  | 336   |
| Safe isolation to EN 61140                      |                |    |       |
| Current heat loss per contact at I <sub>e</sub> |                | W  | 7.4   |
| Lifespan, mechanical                            | Operations     |    | 10000 |
| AC                                              |                |    |       |
| AC-21A                                          |                |    |       |
| Rated operational current switch                |                |    |       |
| 400 V 415 V                                     | I <sub>e</sub> | A  | 160   |
| 500 V                                           | I <sub>e</sub> | A  | 160   |
| 690 V                                           | I <sub>e</sub> | A  | 160   |
| AC-22A                                          |                |    |       |
| Rated operational current switch                |                |    |       |
| 400 V 415 V                                     | I <sub>e</sub> | A  | 160   |
| 500 V                                           | I <sub>e</sub> | A  | 160   |
| 690 V                                           | I <sub>e</sub> | A  | 160   |
| AC-23A                                          |                |    |       |
| Rated operational current switch                |                |    |       |
| 400 V 415 V                                     | I <sub>e</sub> | A  | 140   |
| 500 V                                           | I <sub>e</sub> | A  | 66    |
| 690 V                                           | I <sub>e</sub> | A  | 42    |
| Motor rating AC-23A, 50 - 60 Hz                 | P              | kW |       |
| 400 V 415 V                                     | P              | kW | 80    |
| 500 V                                           | P              | kW | 45    |
| 690 V                                           | P              | kW | 37    |

## Terminal capacities

|                                      |  |                 |        |
|--------------------------------------|--|-----------------|--------|
| Flexible with ferrules to DIN 46228  |  | mm <sup>2</sup> |        |
| flexible                             |  | mm <sup>2</sup> | 6 - 70 |
| Stripping length                     |  | mm              | 21     |
| Tightening torque for terminal screw |  | Nm              | 7      |

## Technical safety parameters:

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

## Design verification as per IEC/EN 61439

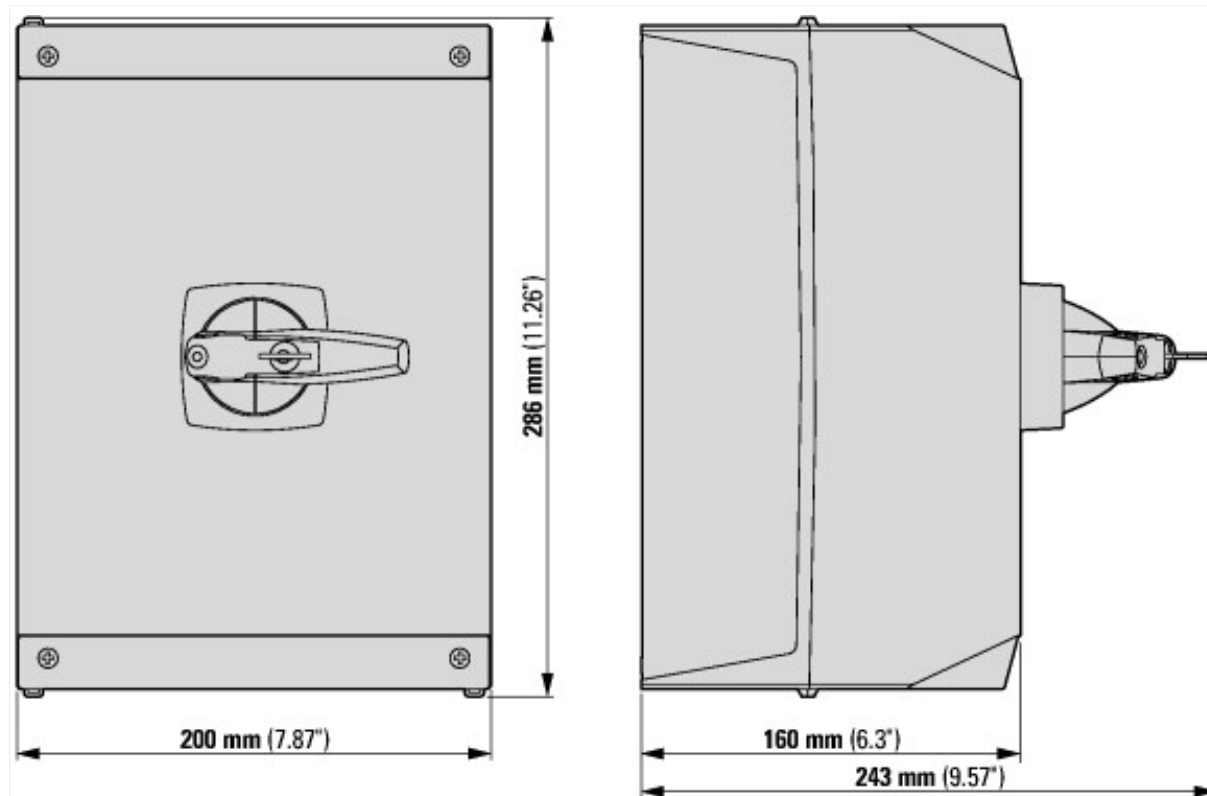
|                                                                                                                        |                   |    |                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------|-------------------|----|----------------------------------------------------------------------------------------------------------------------------------|
| Technical data for design verification                                                                                 |                   |    |                                                                                                                                  |
| Rated operational current for specified heat dissipation                                                               | I <sub>n</sub>    | A  | 160                                                                                                                              |
| Heat dissipation per pole, current-dependent                                                                           | P <sub>vid</sub>  | W  | 7.4                                                                                                                              |
| 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 | 40                                                                                                                               |
| 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                                                                       |                   |    | UV resistance only in connection with protective shield.                                                                         |
| 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 7.0

|                                                                                                                                                                                                               |  |   |           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---|-----------|
| 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                                                                                                                                                                        |  |   | Yes       |
| Version as reversing switch                                                                                                                                                                                   |  |   | No        |
| Number of switches                                                                                                                                                                                            |  |   | 1         |
| Max. rated operation voltage U <sub>e</sub> AC                                                                                                                                                                |  | V | 690       |
| Rated operating voltage                                                                                                                                                                                       |  | V | 690 - 690 |
| Rated permanent current I <sub>u</sub>                                                                                                                                                                        |  | A | 160       |
| Rated permanent current at AC-23, 400 V                                                                                                                                                                       |  | A | 140       |
| Rated permanent current at AC-21, 400 V                                                                                                                                                                       |  | A | 160       |

|                                                         |    |                            |
|---------------------------------------------------------|----|----------------------------|
| Rated operation power at AC-3, 400 V                    | kW | 0                          |
| Rated short-time withstand current I <sub>cw</sub>      | kA | 2.5                        |
| Rated operation power at AC-23, 400 V                   | kW | 0                          |
| Switching power at 400 V                                | kW | 0                          |
| Conditioned rated short-circuit current I <sub>q</sub>  | kA | 50                         |
| 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                                     |    | Complete device in housing |
| Suitable for ground mounting                            |    | Yes                        |
| Suitable for front mounting 4-hole                      |    | No                         |
| Suitable for front mounting centre                      |    | No                         |
| Suitable for distribution board installation            |    | No                         |
| Suitable for intermediate mounting                      |    | No                         |
| Colour control element                                  |    | Red                        |
| Type of control element                                 |    | Short thumb-grip           |
| Interlockable                                           |    | Yes                        |
| Type of electrical connection of main circuit           |    | Screw connection           |
| Degree of protection (IP), front side                   |    | IP65                       |
| Degree of protection (NEMA)                             |    | Other                      |

## Dimensions



## Assets (links)

### Declaration of CE Conformity

00003043

### Instruction Leaflets

IL008006ZU2018\_05