# DATASHEET - DMM-160/4/I5/P-B

**Switch-disconnector, DMM, 160 A, 4 pole, with blue knob, in CI-K5 enclosure**

**Part no.** DMM-160/4/I5/P-B
**Catalog No.** 172795

## Delivery program

| | | | |
|---|---|---|---|
| Product range | | | Switch-disconnector<br>Main switch<br>maintenance switch |
| Part group reference | | | DMM |
| | | | with blue knob |
| Information about equipment supplied | | | auxiliary contact fitted by user. |
| Notes | | | in CI-K5 enclosure |
| Number of poles | | | 4 pole |
| **Auxiliary contacts** | | | |
| | | N/O | 0 |
|  | | N/C | 0 |
| Notes | | | 1 padlock, # 5 mm |
| Locking facility | | | Lockable in the 0 (Off) position |
| Degree of Protection | | | IP65 |
| Design | | | surface mounting |
| **Motor rating AC-23A, 50 - 60 Hz** | | | |
| 400 V | P | kW | 80 |
| Rated uninterrupted current | $I_u$ | A | 160 |
| Note on rated uninterrupted current $!_u$ | | | Rated uninterrupted current $I_u$ is specified for max. cross-section. |

## 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 - +60 |
| Storage | ϑ | °C | -40 - +80 |
| Overvoltage category/pollution degree | | | III/3 |
| Rated impulse withstand voltage | $U_{imp}$ | kV | 6 |
| Rated insulation voltage | $U_i$ | V | 1000 |
| 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 | $U_e$ | V AC | 690 |
| Rated uninterrupted current | $I_u$ | A | 160 |
| Note on rated uninterrupted current $!_u$ | | | Rated uninterrupted current $I_u$ is specified for max. cross-section. |
| Short-circuit rating | | | |
| fuse | | | 160 |
| Rated conditional short-circuit current | Iq | kA | 415 V: 30 |

| | | | |
|---|---|---|---|
| | | | 690 V: 50 |
| Breaking current | | kA | 13.5 |
| max. let-through energy | | $kA^2s$ | 86,9 |
| Rated short-time withstand current (1 s current) | $I_{cw}$ | $A_{rms}$ | 2500 |
| Note on rated short-time withstand current Icw | | | Current for a time of 1 second |
| Heat dissipation per pole, current-dependent | $P_{vid}$ | W | 8 |

### 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 $I_e$ | | W | 7.4 |
| Lifespan, mechanical | Operations | | 10000 |
| AC | | | |
| AC-21A | | | |
| Rated operational current switch | | | |
| 400 V 415 V | $I_e$ | A | 160 |
| 500 V | $I_e$ | A | 160 |
| 690 V | $I_e$ | A | 160 |
| AC-22A | | | |
| Rated operational current switch | | | |
| 400 V 415 V | $I_e$ | A | 160 |
| 500 V | $I_e$ | A | 160 |
| 690 V | $I_e$ | A | 160 |
| AC-23A | | | |
| Rated operational current switch | | | |
| 400 V 415 V | $I_e$ | A | 140 |
| 500 V | $I_e$ | A | 66 |
| 690 V | $I_e$ | 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 | | $mm^2$ | |
| flexible | | $mm^2$ | 6 - 70 |
| Stripping length | | mm | 21 |
| Tightening torque for terminal screw | | Nm | 7 |

### Technical safety parameters:

| | | | |
|---|---|---|---|
| **Notes** | | | $B10_d$ 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 | $I_n$ | A | 160 |
| Heat dissipation per pole, current-dependent | $P_{vid}$ | W | 8 |
| Equipment heat dissipation, current-dependent | $P_{vid}$ | W | 0 |
| Static heat dissipation, non-current-dependent | $P_{vs}$ | W | 0 |
| Heat dissipation capacity | $P_{diss}$ | 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 8.0

| | | |
|---|---|---|
| Low-voltage industrial components (EG000017) / Switch disconnector (EC000216) | | |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@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 | 690 |
| Rated operating voltage | V | 690 - 690 |
| Rated permanent current Iu | 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 Icw | kA | 2.5 |
| Rated operation power at AC-23, 400 V | kW | 80 |
| Switching power at 400 V | kW | 0 |
| Conditioned rated short-circuit current Iq | kA | 50 |
| 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 | | Complete device in housing |
| Suitable for floor 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 | Other |
| 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) | 12 |


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