# DATASHEET - DMV-1600N/3

**Switch-disconnector, DMV, 1600 A, 3 pole, Stop Function optional, Without rotary handle and drive shaft**

**Part no.** **DMV-1600N/3**
**1814595**

| | |
|---|---|
| **General specifications** | |
| Product name | Eaton DMV Switch-disconnector |
| Part no. | DMV-1600N/3 |
| EAN | 8711426743489 |
| Product Length/Depth | 500 millimetre |
| Product height | 250 millimetre |
| Product width | 250 millimetre |
| Product weight | 12.7 kilogram |
| Certifications | IEC/EN 60947-3<br>Lloyds<br>IEC/EN 60204<br>KEMA<br>IEC/EN 60947<br>RoHS<br>EAC<br>CE<br>VDE 0660 |
| Product Tradename | DMV |
| Product Type | Switch-disconnector |
| Product Sub Type | None |
| Catalog Notes | Without rotary handle and drive shaft<br>visible contacts<br>Rated Short-time Withstand Current (Icw) for a time of 1 second |
| **Features & Functions** | |
| Features | Version as main switch<br>Version as emergency stop installation<br>Version as maintenance-/service switch |
| Functions | Optional Stop Function |
| Number of poles | Three-pole |
| **General information** | |
| Accessories | Connection materials included with supplied equipment.<br>Auxiliary contact fitted by user. |
| Actuator color | Other |
| Actuator type | Other |
| Degree of protection | NEMA Other |
| Degree of protection (front side) | IP20 |
| Lifespan, mechanical | 5,000 Operations |
| Mounting method | Surface mounting |
| Mounting position | As required |
| Overvoltage category | III |
| Pollution degree | 3 |
| Product Category | Switch-disconnector<br>Main switch |
| Rated impulse withstand voltage (Uimp) | 12000 V |
| Safety parameter (EN ISO 13849-1) | B10d values as per EN ISO 13849-1, table C.1 |
| Suitable for | Distribution board installation<br>Ground mounting |
| **Climatic environmental conditions** | |
| Ambient operating temperature - min | -25 °C |
| Ambient operating temperature - max | 55 °C |
| Ambient storage temperature - min | -30 °C |
| Ambient storage temperature - max | 80 °C |
| **Terminal capacities** | |

| | |
|---|---|
| Terminal capacity | 1000 mm², Flat conductor connection with busbars |
| Screw size | M12 x 50 (2 x), Terminal screw |
| Tightening torque | 40 Nm, Screw terminals |

## Electrical rating

| | |
|---|---|
| Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3) | 10000 A |
| Rated breaking capacity at 500 V (cos phi to IEC 60947-3) | 7272 A |
| Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3) | 4050 A |
| Rated insulation voltage (Ui) | 1000 V |
| Rated operational current (Ie) at AC-21, 400 V, 415 V | 1600 A |
| Rated operational current (Ie) at AC-21, 500 V | 1600 A |
| Rated operational current (Ie) at AC-21, 690 V | 1600 A |
| Rated operational current (Ie) at AC-22, 380 V, 400 V, 415 V | 1600 A |
| Rated operational current (Ie) at AC-22, 500 V | 1600 A |
| Rated operational current (Ie) at AC-22, 690 V | 1600 A |
| Rated operational current (Ie) at AC-23A, 400 V, 415 V | 1250 A |
| Rated operational current (Ie) at AC-23A, 500 V | 909 A |
| Rated operational current (Ie) at AC-23A, 690 V | 630 A |
| Rated operational power at AC-23A, 400 V, 50 Hz | 750 kW |
| Rated operational power at AC-23A, 500 V, 50 Hz | 630 kW |
| Rated operational power at AC-23A, 690 V, 50 Hz | 630 kW |
| Rated operational power at AC-3, 380/400 V, 50 Hz | 0 kW |
| Rated operational voltage (Ue) at AC - max | 690 V |
| Rated uninterrupted current (Iu) | 1600 A |
| Uninterrupted current | Rated uninterrupted current Iu is specified for max. cross-section. |

## Short-circuit rating

| | |
|---|---|
| Rated conditional short-circuit current (Iq) | 0 kA |
| Rated short-time withstand current (Icw) | 50 kA<br>50 kA, Contacts, 1 second |

## Contacts

| | |
|---|---|
| Number of auxiliary contacts (change-over contacts) | 0 |
| Number of auxiliary contacts (normally closed contacts) | 0 |
| Number of auxiliary contacts (normally open contacts) | 0 |

## Design verification

| | |
|---|---|
| Equipment heat dissipation, current-dependent Pvid | 44.9 W |
| Heat dissipation capacity Pdiss | 0 W |
| Heat dissipation per pole, current-dependent Pvid | 44.75 W |
| Rated operational current for specified heat dissipation (In) | 1600 A |
| Static heat dissipation, non-current-dependent Pvs | 0 W |
| 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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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. |
| 10.9.2 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 9.0

Low-voltage industrial components (EG000017) / Switch disconnector (low voltage) (EC000216)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss13-27-37-14-03 [AKF060018])

| | | | |
|---|---|---|---|
| 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 Ue AC | | V | 690 |
| Rated operating voltage | | V | 690 - 690 |
| Rated permanent current Iu | | A | 1600 |
| Rated permanent current at AC-23, 400 V | | A | 1250 |
| Rated permanent current at AC-21, 400 V | | A | 1600 |
| Rated operation power at AC-3, 400 V | | kW | 0 |
| Rated short-time withstand current Icw | | kA | 50 |
| Rated operation power at AC-23, 400 V | | kW | 750 |
| Switching power at 400 V | | kW | 710 |
| Conditioned rated short-circuit current Iq | | kA | 0 |
| 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 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 | | | Other |
| Type of control element | | | Other |
| Interlockable | | | No |
| Type of electrical connection of main circuit | | | Screw connection |
| With pre-assembled cabling | | | No |
| Degree of protection (IP), front side | | | IP20 |
| Degree of protection (NEMA) | | | Other |
| Width | | mm | 250 |
| Height | | mm | 250 |
| Depth | | mm | 500 |
| Width in number of modular spacings | | | |


© 04/2023 by Eaton Industries GmbH