DATASHEET - DMV-1600N/1

Switch-disconnector, DMV, 1600 A, 3P + N (solid), Stop Function optional, Without rotary handle and drive shaft

Part no. DMV-1600N/1
1814596

General specifications

Product name	Eaton DMV Switch-disconnector
Part no.	DMV-1600N/1
EAN	8711426851481
Product Length/Depth	390 millimetre
Product height	130 millimetre
Product width	370 millimetre
Product weight	13.74 kilogram
Certifications	KEMA EAC VDE 0660 IEC/EN 60947-3 RoHS IEC/EN 60947 CE IEC/EN 60204 Lloyds
Product Tradename	DMV
Product Type	Switch-disconnector
Product Sub Type	None
Catalog Notes	Without rotary handle and drive shaft visible contacts Rated Short-time Withstand Current (Icw) for a time of 1 second

Features & Functions

Features	Version as main switch Version as emergency stop installation Version as maintenance-/service switch
Functions	Optional Stop Function
Number of poles	Three-pole + N

General information

Accessories	Connection materials included with supplied equipment. 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 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 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, Contacts, 1 second 50 kA

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	42.5 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			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			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	370
Height		mm	130
Depth		mm	390
Width in number of modular spacings			

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