DATASHEET - DMVS-160N/4

Switch-disconnector, DMVS, 160 A, 4 pole, Stop Function optional, Without rotary handle and drive shaft, 9 mm connection hole

Part no. DMVS-160N/4
1814188

General specifications

Product name	Eaton DMVS Switch-disconnector
Part no.	DMVS-160N/4
EAN	8711426847378
Product Length/Depth	206 millimetre
Product height	75 millimetre
Product width	185 millimetre
Product weight	1.72 kilogram
Certifications	RoHS IEC/EN 60947-3 CE VDE 0660 KEMA EAC IEC/EN 60947 IEC/EN 60204 Lloyds
Product Tradename	DMVS
Product Type	Switch-disconnector
Product Sub Type	None
Catalog Notes	Without rotary handle and drive shaft visible contacts Current for a time of 0.3 seconds

Features & Functions

Features	Version as emergency stop installation
Functions	Optional Stop Function
Number of poles	Four-pole

General information

Accessories	Connection materials included with supplied equipment. Auxiliary contact fitted by user.
Actuator color	Other
Actuator type	Other
Connection type	9 mm connection hole
Degree of protection	NEMA Other
Degree of protection (front side)	IP20
Lifespan, mechanical	10,000 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)	8000 V
Safety parameter (EN ISO 13849-1)	B10d values as per EN ISO 13849-1, table C.1
Suitable for	Ground mounting
Switching angle	90 °

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	120 mm^2, Flat conductor connection with busbars
Screw size	M8 x 20, Terminal screw
Tightening torque	14 Nm, Screw terminals

Electrical rating

Rated breaking capacity at 400/415 V (cos phi to IEC 60947-3)	1280 A
Rated breaking capacity at 500 V (cos phi to IEC 60947-3)	1248 A
Rated breaking capacity at 660/690 V (cos phi to IEC 60947-3)	1120 A
Rated insulation voltage (Ui)	1000 V
Rated operational current (Ie) at AC-21, 400 V, 415 V	160 A
Rated operational current (Ie) at AC-21, 500 V	160 A
Rated operational current (Ie) at AC-21, 690 V	160 A
Rated operational current (Ie) at AC-22, 380 V, 400 V, 415 V	160 A
Rated operational current (Ie) at AC-22, 500 V	160 A
Rated operational current (Ie) at AC-22, 690 V	160 A
Rated operational current (Ie) at AC-23A, 400 V, 415 V	160 A
Rated operational current (Ie) at AC-23A, 500 V	156 A
Rated operational current (Ie) at AC-23A, 690 V	140 A
Rated operational power at AC-23A, 400 V, 50 Hz	90 kW
Rated operational power at AC-23A, 500 V, 50 Hz	110 kW
Rated operational power at AC-23A, 690 V, 50 Hz	132 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)	160 A
Uninterrupted current	Rated uninterrupted current Iu is specified for max. cross-section.

Short-circuit rating

Breaking current	40 kA (at In = 500) 33 kA (at In = 250)
Let-through energy	Max. 1700 kA^2s (at In = 500) Max. 380 kA^2s (at In = 250)
Rated conditional short-circuit current (Iq)	100 kA 50 kA at In = 500
Rated short-time withstand current (Icw)	12 kA, Contacts, 1 second 12 kA
Short-circuit protection rating	500/250, Fuse, Contacts

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	1.8 W
Heat dissipation capacity Pdiss	0 W
Heat dissipation per pole, current-dependent Pvid	2.3 W
Rated operational current for specified heat dissipation (In)	160 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		No
Version as maintenance-/service switch		No
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	160
Rated permanent current at AC-23, 400 V	A	160
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	12
Rated operation power at AC-23, 400 V	kW	90
Switching power at 400 V	kW	90
Conditioned rated short-circuit current Iq	kA	100
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		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	185
Height	mm	75
Depth	mm	206

Width in number of modular spacings				

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