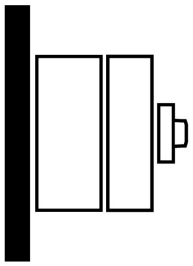
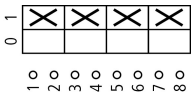
DATASHEET - DMVS-160N/4

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

Powering Business Worldwide™

Part no. DMVS-160N/4
Catalog No. 1814188

Delivery program

Product range			Switch-disconnector Main switch maintenance switch
Part group reference			DMVS
Stop Function			optional
			Without rotary handle and drive shaft
Notes			visible contacts
Information about equipment supplied			auxiliary contact fitted by user. including connection materials
Number of poles			4 pole
Auxiliary contacts			
		N/O	0
		N/C	0
Degree of Protection			IP00 IP20 with terminal cover
Design			surface mounting
			
Contact sequence			
Switching angle		°	90
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	90
Rated uninterrupted current	I_u	A	160
Note on rated uninterrupted current $!_u$			Rated uninterrupted current I_u is specified for max. cross-section.
Connection technique			9 mm connection hole

Technical data

General

Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204 Switch-disconnector according to IEC/EN 60947-3
Certifications			CE, RoHs, KEMA, EAC, Lloyds
Ambient temperature			
Operation	ϑ	°C	-25 - +55
Storage	ϑ	°C	-30 - +80
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U_{imp}	kV	8
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 I_u			Rated uninterrupted current I_u is specified for max. cross-section.
Short-circuit rating			
fuse			500/250
Rated conditional short-circuit current	Iq	kA	In = 500: 50 In = 250: 100
Breaking current		kA	In = 500: 40 In = 250: 33
max. let-through energy		kA^2s	In = 500: 1700 In = 250: 380
Rated short-time withstand current (1 s current)	I_{cw}	A_{rms}	12000
Note on rated short-time withstand current Icw			Current for a time of 0.3 seconds
Heat dissipation per pole, current-dependent	P_{vid}	W	1.8

Switching capacity

Rated breaking capacity cos φ to IEC 60947-3		A	
400/415 V		A	1280
500 V		A	1248
690 V		A	1120
Safe isolation to EN 61140			
Current heat loss per contact at I_e		W	2.3
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	160
500 V	I_e	A	156
690 V	I_e	A	140
Motor rating AC-23A, 50 - 60 Hz	P	kW	
400 V 415 V	P	kW	90
500 V	P	kW	110
690 V	P	kW	132

Terminal capacities

Flat conductor connection with busbars		mm^2	120
Terminal screw			M8 x 20
Tightening torque for terminal screw		Nm	14

Technical safety parameters:

Notes			$B10_d$ values as per EN ISO 13849-1, table C1

Design verification as per IEC/EN 61439

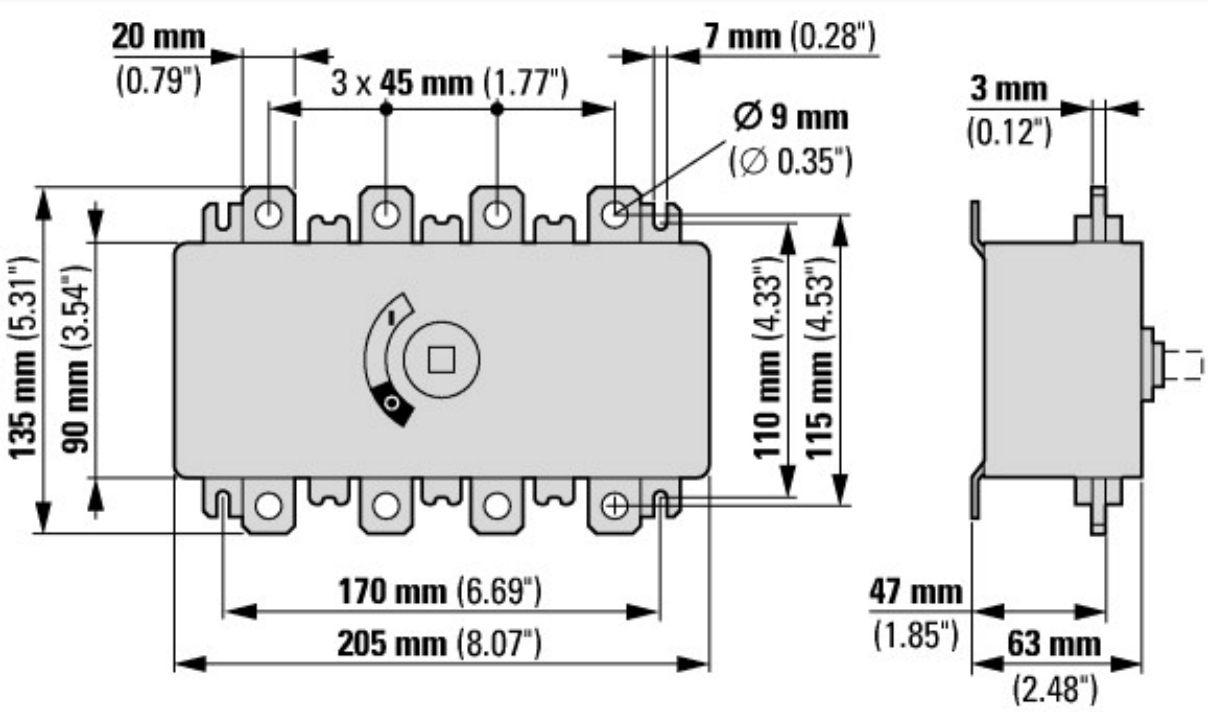
Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	160
Heat dissipation per pole, current-dependent	P_{vid}	W	1.8
Equipment heat dissipation, current-dependent	P_{vid}	W	0
Static heat dissipation, non-current-dependent	P_{vs}	W	0
Heat dissipation capacity	P_{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	55
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			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 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 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			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 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			Other
Type of control element			Other
Interlockable			No
Type of electrical connection of main circuit			Screw connection
Degree of protection (IP), front side			IP20
Degree of protection (NEMA)			Other

Dimensions



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