

Switch-disconnector, DMV, 400 A, 4 pole, Stop Function optional, Without rotary handle and drive shaft



Part no. **DMV-400N/4**
 Catalog No. **1814413**

Delivery program

Product range			Switch-disconnector Main switch maintenance switch
Part group reference			DMV
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	
			IP00 IP20 with terminal cover
Degree of Protection			
Design			surface mounting
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	180
Rated uninterrupted current	I _u	A	400
Note on rated uninterrupted current I _u			Rated uninterrupted current I _u is specified for max. cross-section.

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	400
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	I _q	kA	I _n = 500: 50 I _n = 250: 100
Breaking current		kA	I _n = 500: 40 I _n = 250: 33
max. let-through energy		kA ² s	I _n = 500: 1700 I _n = 250: 380
Rated short-time withstand current (1 s current)	I _{cw}	A _{rms}	12000
Note on rated short-time withstand current I _{cw}			Current for a time of 0.3 seconds
Heat dissipation per pole, current-dependent	P _{vid}	W	11.5

Switching capacity

Rated breaking capacity cos φ to IEC 60947-3		A	
400/415 V		A	2664
500 V		A	2032
690 V		A	1120
Safe isolation to EN 61140			
Current heat loss per contact at I _e		W	9
Lifespan, mechanical	Operations		10000
AC			
AC-21A			
Rated operational current switch			
400 V 415 V	I _e	A	400
500 V	I _e	A	400
690 V	I _e	A	400
AC-22A			
Rated operational current switch			
400 V 415 V	I _e	A	400
500 V	I _e	A	400
690 V	I _e	A	315
AC-23A			
Rated operational current switch			
400 V 415 V	I _e	A	333
500 V	I _e	A	254
690 V	I _e	A	140
Motor rating AC-23A, 50 - 60 Hz	P	kW	
400 V 415 V	P	kW	180
500 V	P	kW	180
690 V	P	kW	132

Terminal capacities

Flat conductor connection with busbars		mm ²	240
Terminal screw			M10 x 20
Tightening torque for terminal screw		Nm	28

Technical safety parameters:

Notes		B10 _d values as per EN ISO 13849-1, table C1
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Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	A	400
Heat dissipation per pole, current-dependent	P _{vid}	W	11.5
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 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		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	400
Rated permanent current at AC-23, 400 V	A	333
Rated permanent current at AC-21, 400 V	A	400
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	180
Switching power at 400 V	kW	180
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
Degree of protection (IP), front side	IP20
Degree of protection (NEMA)	Other