

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



Part no. DMV-1600N/1
Catalog No. 1814596

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			3P + N (solid)
Auxiliary contacts			
		N/O	0
		N/C	0
Degree of Protection			IP00 IP20 with terminal cover
Design			surface mounting
Contact sequence			
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	750
Rated uninterrupted current	I _u	A	1600
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	12
Rated insulation voltage	U _i	V	1000
Mounting position			As required
Contacts			
Mechanical variables			

Number of poles			3P + N (solid)
Auxiliary contacts			
		N/O	0
		N/C	0
Electrical characteristics			
Rated operational voltage	U_e	V AC	690
Rated uninterrupted current	I_u	A	1600
Note on rated uninterrupted current I_u			Rated uninterrupted current I_u is specified for max. cross-section.
Rated short-time withstand current (1 s current)	I_{cw}	A_{rms}	50000
Note on rated short-time withstand current I_{cw}			Current for a time of 1 second
Heat dissipation per pole, current-dependent	P_{vid}	W	44.75

Switching capacity

Rated breaking capacity $\cos \phi$ to IEC 60947-3		A	
400/415 V		A	10000
500 V		A	7272
690 V		A	4050
Safe isolation to EN 61140			
Current heat loss per contact at I_e		W	44.75
Lifespan, mechanical	Operations		5000
AC			
AC-21A			
Rated operational current switch			
400 V 415 V	I_e	A	1600
500 V	I_e	A	1600
690 V	I_e	A	1600
AC-22A			
Rated operational current switch			
400 V 415 V	I_e	A	1600
500 V	I_e	A	1600
690 V	I_e	A	1600
AC-23A			
Rated operational current switch			
400 V 415 V	I_e	A	1250
500 V	I_e	A	909
690 V	I_e	A	630
Motor rating AC-23A, 50 - 60 Hz			
400 V 415 V	P	kW	750
500 V	P	kW	630
690 V	P	kW	630

Terminal capacities

Flat conductor connection with busbars		mm^2	1000
Terminal screw			M12 x 50 (2 x)
Tightening torque for terminal screw		Nm	40

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	1600
Heat dissipation per pole, current-dependent	P_{vid}	W	44.75
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

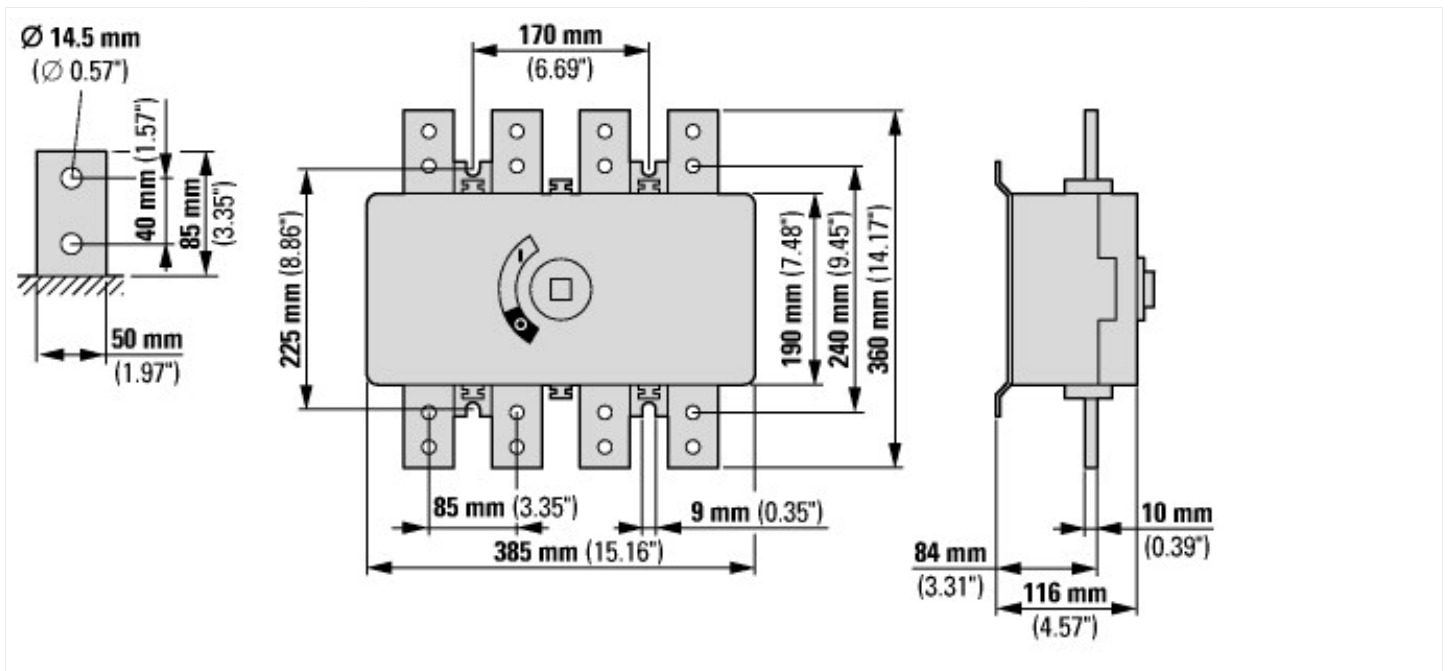
Operating ambient temperature max.	°C	55
IEC/EN 61439 design verification		
10.2 Strength of materials and parts		
10.2.2 Corrosion resistance		Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures		Meets the product standard's requirements.
10.2.3.2 Verification 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 disconnecter (EC000216)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnecter (ecI@ss10.0.1-27-37-14-03 [AKF060013])		
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 ground 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
Degree of protection (IP), front side		IP20
Degree of protection (NEMA)		Other

Dimensions



Additional product information (links)

IL008008Z Switch-disconnectors

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ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL008008ZU2018_05.pdf