

Switch-disconnector, DMM, 40 A, 4 pole, With black rotary handle and drive shaft, Vertical connection

Part no. **DMM-40/4**
Catalog No. **1314057**

Delivery program

Product range			Switch-disconnector Main switch maintenance switch
Part group reference			DMM
Information about equipment supplied			With black rotary handle and drive shaft auxiliary contact fitted by user.
Number of poles			4 pole
Auxiliary contacts			
	N/O	0	
	N/C	0	
Notes			1 padlock, # 5 mm
Locking facility			Lockable in the 0 (Off) position
Degree of Protection			IP20
Design			surface mounting
Motor rating AC-23A, 50 - 60 Hz			
400 V	P	kW	22
Rated uninterrupted current	I _u	A	40
Note on rated uninterrupted current I _u			Rated uninterrupted current I _u is specified for max. cross-section.
Connection technique			Vertical connection

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	8	°C	-25 - +55
Storage	8	°C	-30 - +80
Overvoltage category/pollution degree			III/3
Rated impulse withstand voltage	U _{imp}	kV	6
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	40
Note on rated uninterrupted current I _u			Rated uninterrupted current I _u is specified for max. cross-section.
Short-circuit rating			
fuse			80/50
Rated conditional short-circuit current	I _q	kA	I _n = 80: 50

			In = 50: 100
Breaking current	kA	In = 80: 9.7 In = 50: 9.6	
max. let-through energy	kA ² s	In = 80: 44 In = 50: 10	
Rated short-time withstand current (1 s current)	I _{CW}	A _{rms}	1000
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	0.5

Switching capacity

Rated breaking capacity cos φ to IEC 60947-3		A	
400/415 V		A	320
500 V		A	264
690 V		A	200
Safe isolation to EN 61140			
Current heat loss per contact at I _e		W	4
Lifespan, mechanical	Operations		8500
AC			
AC-21A			
Rated operational current switch			
400 V 415 V	I _e	A	40
500 V	I _e	A	40
690 V	I _e	A	40
AC-22A			
Rated operational current switch			
400 V 415 V	I _e	A	40
500 V	I _e	A	40
690 V	I _e	A	40
AC-23A			
Rated operational current switch			
400 V 415 V	I _e	A	40
500 V	I _e	A	33
690 V	I _e	A	25
Motor rating AC-23A, 50 - 60 Hz	P	kW	
400 V 415 V	P	kW	22
500 V	P	kW	22
690 V	P	kW	22

Terminal capacities

Solid		mm ²	2.5 - 16
Flexible with ferrules to DIN 46228		mm ²	
flexible		mm ²	1.5 - 25
Stripping length		mm	14
Tightening torque for terminal screw		Nm	2

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	40
Heat dissipation per pole, current-dependent	P _{vid}	W	0.5
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 [AKFO60013])	
Version as main switch	Yes
Version as maintenance-/service switch	Yes
Version as safety switch	No
Version as emergency stop installation	No
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 40
Rated permanent current at AC-23, 400 V	A 40
Rated permanent current at AC-21, 400 V	A 40
Rated operation power at AC-3, 400 V	kW 0
Rated short-time withstand current Icw	kA 1
Rated operation power at AC-23, 400 V	kW 22
Switching power at 400 V	kW 0
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	Built-in device fixed built-in technique
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		Black
Type of control element		Short thumb-grip
Interlockable		No
Type of electrical connection of main circuit		Screw connection
Degree of protection (IP), front side		IP20
Degree of protection (NEMA)		Other