

Changover switch, QM, 40 A, 2 x 3 pole + N (switched), without rotary handle, With drive shaft, 6 mm square

Part no. **QM40/3N**
Catalog No. **1319970**

Delivery program

Product range			Changover switches
Part group reference			QM
Stop Function			optional
			without rotary handle With drive shaft, 6 mm square
Information about equipment supplied			auxiliary contact fitted by user.
Number of poles			2 x 3 pole + N (switched)
Auxiliary contacts			
	N/O	0	
	N/C	0	
Degree of Protection			IP20
Design			rear mounting
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.

Technical data

General			
Standards			IEC/EN 60947, VDE 0660, IEC/EN 60204 Switch-disconnector according to IEC/EN 60947-3
Certifications			CE, RoHS
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	690
Mounting			Top-hat rail mounting
Mounting position			As required

Contacts

Mechanical variables			
Number of poles			2 x 3 pole + N (switched)
Auxiliary contacts			
	N/O	0	
	N/C	0	
Electrical characteristics			
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.
Heat dissipation per pole, current-dependent	P _{vid}	W	4

Switching capacity

Safe isolation to EN 61140			
Current heat loss per contact at I _e		W	4

Terminal capacities

Solid	mm ²	2.5 - 16
Flexible with ferrules to DIN 46228	mm ²	

flexible	mm ²	2.5 - 10
Flexible	mm ²	4 - 10
Stripping length	mm	10
Tightening torque for terminal screw	Nm	1.8

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 40
Heat dissipation per pole, current-dependent	P _{vid}	W 4
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 5.0

Low-voltage industrial components (EG000017) / Switch disconnector (EC000210)	
Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Switch disconnector (ecl@ss8-27-37-14-03 [AKFO60009])	
Version as switch disconnector compact	Yes
Version as main switch	No
Version as maintenance-/service switch	No
Version as safety switch	No
Version as emergency stop installation	No
Max. rated operation voltage Ue AC	V 690
Rated permanent current I _n	A 40

Rated operation power AC-3, 400 V	kW	11
Rated operation power at AC-23, 400 V	kW	15
Conditioned rated short-circuit current I_q	kA	0
Number of poles		8
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 ground mounting		Yes
Suitable for front mounting		No
Suitable for front mounting center		No
Suitable for distribution board installation		No
Suitable for intermediate mounting		No
Type of control element		-
Interlockable		No
Connection type main current circuit		Screw connection
Degree of protection (IP), front side		IP20