

Changeover 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			Changeover 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	θ	°C	-25 - +55
Storage	θ	°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 $I_θ$		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

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 (EC000216)			
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 [AKF060009])			
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 Iu		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