

RCD/MCB, 20A, 30mA, miniature circuit-breaker trip curve B, 3 p, residual current circuit-breaker trip characteristic: A

Part no. PKPM3-20/3/B/003-Li/A
 Catalog No. 196663

Technical data

Electrical

Types conform to			IEC/EN 61009
Current test marks			As per inscription
Tripping		s...	non-delayed
Rated frequency	f	Hz	50
Rated fault currents	$I_{\Delta n}$	mA	30, 100
Rated non-tripping current	$I_{\Delta no}$		0,5
Rated impulse withstand voltage	U_{imp}	kV	4 (1.2/50 μ s)
Max. admissible back-up fuse			
Short-circuit	gG/gL	A	100
Characteristic			B
Selectivity Class			3
lifespan			
Electrical	Operations		≥ 2000
Mechanical	Operations		≥ 10000

Mechanical

Standard front dimension		mm	45
Device height		mm	80
Built-in width		mm	70 (4TE)
Mounting			Tristable slide catch enables removal from existing combination.
Degree of Protection			IP20, IP40 (when fitted)
Terminals top and bottom			Twin-purpose terminals
Terminal protection			finger and hand touch safe, DGUV VS3, EN 50274
Terminal capacity			rigid conductors 1 x (1 - 25) mm ²
Tightening torque of fixing screws		N/m	2 - 2.4
Thickness of busbar material		mm	0.8 - 2
Admissible ambient temperature range		°C	-25 - +40
Permissible storage and transport temperatures		°C	-35 - +60
Climatic proofing			gemäß IEC/EN 61009

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	20
Heat dissipation per pole, 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	40
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

Circuit breakers and fuses (EG000020) / Earth leakage circuit breaker (EC000905)		
Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / MCB/RCCB combination (ecl@ss10.0.1-27-14-22-07 [AFZ810015])		
Number of poles (total)		3
Number of protected poles		3
Rated voltage	V	230
Rated insulation voltage U_i	V	500
Rated impulse withstand voltage U_{imp}	kV	4
Rated current	A	20
Rated fault current	A	0.03
Leakage current type		A
Current limiting class		3
Rated short-circuit breaking capacity acc. EN 61009	kA	10
Rated short-circuit breaking capacity IEC 60947-2	kA	0
Rated short-circuit breaking capacity I_{cn} acc. EN 61009-1	kA	10
Disconnection characteristic		Short-time delayed
Surge current capacity	kA	3
Voltage type		AC
Frequency		50 Hz
Release characteristic		B
Concurrently switching N-neutral		No
With interlocking device		No
Over voltage category		3
Pollution degree		2
Ambient temperature during operating	°C	-25 - 40
Width in number of modular spacings		4
Built-in depth	mm	69.5
Suitable for flush-mounted installation		No
Anti-nuisance tripping version		Yes
Degree of protection (IP)		IP20
Connectable conductor cross section solid-core	mm ²	1 - 25
Connectable conductor cross section multi-wired	mm ²	1 - 25