

Residual current circuit-breaker, 100A, 4p, 0mA, AC-Char

Part no. PDIM-100/4
Catalog No. 111761
Alternate Catalog No. PDIM-100-4
EL-Nummer (Norway) 1609349

Similar to illustration

Delivery program

Basic function			Leakage current monitor
Number of poles			4 pole
Application			Switchgear for industrial and advanced commercial applications
Rated current	I_n	A	100
Rated short-circuit strength	I_{cn}	kA	10
Rated fault current	$I_{\Delta N}$	A	adjustable: 0.03/0.1/0.3/0.5/1
Tripping		s...	Short time-delayed, adjustable selective switch off, adjustable non-delayed, adjustable
Product range			PDIM
Sensitivity			AC and pulsating DC current sensitive

Technical data

Electrical

Types based on			DIN/EN 62020
Current test marks			As per inscription
Rated current	I_n	A	100
Response value			unverzögert
Type G			10 ms verzögert
Type S			40 ms verzögert - selektiv
Rated voltage according to IEC/EN 60947-2	U_n	V AC	230/400, 50/60 Hz 240/415, 50/60 Hz
Sensitivity			AC and pulsating DC current sensitive
Rated insulation voltage	U_i	V	440
Rated short-circuit strength	I_{cn}	kA	10
Max. admissible back-up fuse			
Short-circuit	gG/gL	A	100
Overload	gG/gL	A	63
Switch contacts			10 A / 240 V~
Response behaviour of contacts			1: 30 - 50 % $I_{\Delta n}$ 2: > 50 % $I_{\Delta n}$
lifespan			
Electrical	Operations		≥ 4000
Mechanical	Operations		≥ 20000

Mechanical

Standard front dimension		mm	45
Device height		mm	80
Built-in width		mm	70 (4TE)
Mounting			Quick attachment with 2 latch positions on top-hat rail IEC/EN 60715
Degree of Protection			IP20, IP40 with suitable enclosure
Terminals top and bottom			Twin-purpose terminals
Terminal protection			finger and hand touch safe, DGUV VS3, EN 50274
Terminal capacity (1, 2, 3, 4, 5, 6, N, N)			
Solid		mm ²	1.5 - 35

Stranded	mm ²	2 x 16
Terminal cross-section of switching contacts	mm ²	0.25 - 1.5
Thickness of busbar material	mm	0.8 - 2
Admissible ambient temperature range	°C	-25 - +60
Permissible storage and transport temperatures	°C	-35 - +60
Climatic proofing		25-55°C/90-95% relative humidity according to IEC 60068-2
Operating ambient temperature min.	°C	-25

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	A	100
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	18.8
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	60
			Starting at 40 °C, the max. permissible continuous current decreases by 1.2% for every 1 °C
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

Circuit breakers and fuses (EG000020) / Residual current circuit breaker (RCCB) (EC000003)			
Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Residual current circuit breaker (RCCB) (ecI@ss10.0.1-27-14-22-01 [AAB906014])			
Number of poles			4
Rated voltage		V	415
Rated current		A	100
Rated fault current		A	1

Rated insulation voltage U_i	V	440
Rated impulse withstand voltage U_{imp}	kV	4
Mounting method		DIN rail
Leakage current type		AC
Selective protection		Yes
Short-time delayed tripping		Yes
Short-circuit breaking capacity (I_{cw})	kA	10
Surge current capacity	kA	0.25
Voltage type		AC
With interlocking device		Yes
Frequency		60 Hz
Additional equipment possible		Yes
Degree of protection (IP)		IP20
Width in number of modular spacings		4
Built-in depth	mm	60
Ambient temperature during operating	°C	-25 - 60
Pollution degree		2
Connectable conductor cross section multi-wired	mm ²	1.5 - 16
Connectable conductor cross section solid-core	mm ²	1.5 - 35
Explosion-proof		No