

Residual current circuit-breaker, 25A, 0p, 3mA, A-Char

Part no. PFR2-03-S/A
Catalog No. 235864
Alternate Catalog No. PFR2-03-S-A

Delivery program

Basic function			Residual current relay
Rated short-circuit strength	I_{cn}	kA	5
Rated fault current	$I_{\Delta N}$	A	0.3
Type			Type S/A
Tripping		s...	40 ms delay - selective switch off
Product range			PFR2
Sensitivity			Pulse-current sensitive

Technical data

Electrical

Rated operational voltage	U_e	V	
	U_e	V AC	
Rated operating voltage	U_e	V AC	230/400
Rated frequency	f	Hz	50
Limit values of the operating voltage			
Test circuit		V AC	184 - 440
Sensitivity			Pulse-current sensitive
Rated impulse withstand voltage	U_{imp}	kV	4
Rated short-circuit strength	I_{cn}	kA	5
lifespan			
Electrical	Operations		≥ 4000
Mechanical	Operations		≥ 20000

References

Auxiliary switch for subsequent installation			Z-HK 248432
Tripping signal contact for subsequent installation			Z-NHK 248434
Compact enclosure			KLV-TC-4 276241
Sealing cover set			Z-RC/AK-4TE 101062

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 cross-section			
Solid		mm ²	1.5 - 35
Stranded		mm ²	2 x 16
Thickness of busbar material		mm	0.8 - 2
Permissible storage and transport temperatures		°C	-35 - +60
Climatic proofing			25-55°C/90-95% relative humidity according to IEC 60068-2

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	25
Heat dissipation per pole, current-dependent	P_{vid}	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 3% 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	400
Rated current		A	25
Rated fault current		A	0.3
Rated insulation voltage U _i		V	440
Rated impulse withstand voltage U _{imp}		kV	4
Mounting method			DIN rail
Leakage current type			A
Selective protection			Yes
Short-time delayed tripping			No
Short-circuit breaking capacity (I _{cw})		kA	10
Surge current capacity		kA	5
Voltage type			AC
With interlocking device			No
Frequency			50 Hz
Additional equipment possible			Yes
Degree of protection (IP)			IP20
Width in number of modular spacings			4
Built-in depth		mm	69.5

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