



## Residual current circuit breaker (RCCB), 40A, 4 p, 30mA, type AC

Part no. **PF6-40/4/003**  
 Catalog No. **286508**

**EATON**  
 Powering Business Worldwide™

## Delivery program

Basic function	Residual current circuit-breakers		
Number of poles	4 pole		
Application	Residual current circuit-breaker for residential and commercial applications		
Rated current	$I_n$	A	40
Rated short-circuit strength	$I_{cn}$	kA	6
Rated fault current	$I_{\Delta N}$	A	0.03
Type	Type AC		
Tripping	S... non-delayed		
Product range	PF6		
Sensitivity	AC current sensitive		
Impulse withstand current	Partly surge-proof 250 A		

## Technical data

## Electrical

Standards	IEC/EN 61008		
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	AC current sensitive		
Rated insulation voltage	$U_i$	V	440
Rated impulse withstand voltage	$U_{imp}$	kV	4
Rated short-circuit strength	$I_{cn}$	kA	6
Rated making and breaking capacity / Rated residual making and breaking capacity	$I_m / I_{\Delta m}$	A	500
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		
Remote control and automatic switching device	Z-FW/LP 248296		
Compact enclosure	KLV-TC-4 276241		
Switching interlock	IS/SPE-1TE 101911		
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 for DIN-rail IEC/EN 60715	
Degree of Protection		IP40, IP54 (with moisture-proof enclosure)	
Terminals top and bottom		Open mouthed/lift terminals	
Terminal protection		BGV A3, ÖVE-EN 6	
Terminal cross-section			
Solid	mm <sup>2</sup>	1.5 - 35	

Stranded	mm <sup>2</sup>	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
Thickness of busbar material	mm	
Material thickness	mm	0.8 - 2

## Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	A	40
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	9.6
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
			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 7.0

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) (ecl@ss10.0.1-27-14-22-01 [AAB906014])			
Number of poles			4
Rated voltage	V	400	
Rated current	A	40	
Rated fault current	mA	30	
Rated insulation voltage Ui	V	440	

Rated impulse withstand voltage U <sub>imp</sub>	kV	4
Mounting method		DIN rail
Leakage current type		AC
Selective protection		No
Short-time delayed tripping		No
Short-circuit breaking capacity (I <sub>cw</sub> )	kA	6
Surge current capacity	kA	0.25
Frequency		50 Hz
Additional equipment possible		Yes
With interlocking device		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 - 40
Pollution degree		2
Connectable conductor cross section multi-wired	mm <sup>2</sup>	1.5 - 16
Connectable conductor cross section solid-core	mm <sup>2</sup>	1.5 - 35