



Residual Current Devices - General Data Short description of the most important RCD types Symbol Description Eaton standard. Suitable for outdoor installation (distribution boxes for outdoor installation and building sites) up to 1-25 Conditionally surge-current proof (>250 A, 8/20 µs) for general application. Type AC: AC current sensitive RCCB Type A: AC and pulsating DC current sensitive RCCB, not affected by smooth DC fault currents up to 6 mA Type F: AC and pulsating DC current sensitive RCCB, trips also at frequency mixtures (10 Hz, 50 Hz, 1000 Hz), min. 10 ms time-delayed, min. 3 kA surge current proof, higher load capacity with smooth DC fault currents up to 10 mA Frequency range up to 20 kHz kHz Trips also at frequency mixtures (10 Hz, 50 Hz, 1000 Hz) 144441 Type B: All-current sensitive RCD switchgear for applications where DC fault currents may occur. Non-selective, nondelayed. Protection against all kinds of fault currents. Type B+: All-current sensitive RCD switchgear for applications where DC fault currents may occur. Non-selective, non-delayed. Protection against all kinds of fault currents. Provides enhanced fire safety. kHz RCD of type G (min 10 ms time delay) surge current-proof up to 3 kA. For system components where protection G against unwanted tripping is needed to avoid personal injury and damage to property. Also for systems involving long lines with high capacitive reactance. Some versions are sensitive to pulsating DC. Some versions are available in all-current sensitive design. RCD of type S (selective, min 40 ms time delay) surge current-proof up to 5 kA. Mainly used as main switch, as well as in combination with surge arresters. This is the only RCD suitable for series connection with other types if the rated tripping current of the downstream RCD does not exceed one third of the rated tripping current of the device of type S. Some versions are sensitive to pulsating DC. Some versions are available in all-current sensitive design. "X-ray-proof", for avoiding unwanted tripping caused by x-ray devices. "röntgenfest" "Frequency converter-proof", for avoiding unwanted tripping caused by frequency converters, speed-controlled umrichterfest" drives, etc.

1

Kind of residual current and correct use of RCD Types

Kind of current	Current profile		t use / appl B types	lication fiel	d		Tripping current
	•	AC	A	F	B ₩ [/ B+	
Sinusoidal AC residual current	\sim	V	V	~	V		0.5 to 1.0 I _{Δn}
Pulsating DC residual current (positive or negative half-wave)		-	V	~	V		0.35 to 1.4 $I_{\Delta n}$
Cut half-wave current	7_7_	-	V	~	V		Lead angle 90°:
Lead angle 90° el Lead angle 135° el	VV		~	✓	•		0.25 to 1.4 $I_{\Delta n}$ Lead angle 135°: 0.11 to 1.4 $I_{\Delta n}$
Half-wave with smooth DC current of 6 mA		-	V	✓	V		max. 1.4 $I_{\Delta n}$ + 6 mA
Half-wave with smooth DC current of 10 mA		-	-	✓	V		max. 1.4 Ι _{Δn} + 10 mA
Smooth DC current		-	-	_	V		0.5 to 2.0 I _{Δn}

Tripping time

Break time and non-actuating time for alternating residual currents (r.m.s. values) for type AC and A RCCB

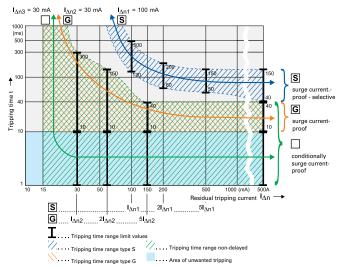
Classification	$oldsymbol{I}_{\Delta n}$ m $oldsymbol{A}$		$\mathbf{I}_{\Delta\mathbf{n}}$	2 x I _{∆n}	5 x I _{∆n}	5 x I _{∆n} or 0.25A	500A
Standard RCD Conditionally surge current- proof 250 A	≤30	Max. tripping time (s)	0.3	0,15		0,04	0.04
Standard RCD Conditionally surge current- proof 250 A	>30	Max. tripping time (s)	0.3	0.15	0.04		0.04
RCCBType G (Short-time-delay) Surge current-proof 3 kA	30	Min. non actuating time(s) Max. tripping time (s)	0.01 0.3	0.01 0.15		0.01 0.04	0.01 0.04
RCCBType G (Short-time-delay) Surge current-proof 3 kA	>30	Min. non actuating time(s) Max. tripping time (s)	0.01 0.3	0.01 0.15	0.01 0.04		0.01 0.04
RCCBType S (Selective) Surge current-proof 5 kA	>30	Min. non actuating time(s) Max. tripping time (s)	0.13 0.5	0.06 0.2	0.05 0.15		0.04 0.15

Break time for half-wave pulsating residual currents (r.m.s. values) for type A RCCB

Classification	$oldsymbol{I}_{\Delta n}$ m $oldsymbol{A}$		1.4 x I _{∆n}	2 x $I_{\Delta n}$	2.8 x I _{∆n}	4 x $I_{\Delta n}$	7 x l _{∆n}	0.35 A	0.5 A	350A
Standard RCD Conditionally surge current-proof 250 A	<30	Max. tripping time (s)		0.3		0.15			0.04	0.04
Standard RCD Conditionally surge current-proof 250 A	30	Max. tripping time (s)	0.3		0.15			0.04		0.04
Standard RCD Conditionally surge current-proof 250 A	>30	Max. tripping time (s)	0.3		0.15		0.04			0.04
RCCBType G (Short-time-delay) Surge current-proof 3 kA	30	Max. tripping time (s)	0.3		0.15			0.04		0.04
RCCBType G (Short-time-delay) Surge current-proof 3 kA	>30	Max. tripping time (s)	0.3		0.15		0.04			0.04
RCCBType S (Selective) Surge current-proof 5 kA	>30	Max. tripping time (s)	0.5		0.2		0.15			0.15

Tripping Characteristics (IEC/EN 61008)

Tripping characteristics, tripping time range and selectivity of instantaneous, surge current-proof "G" and surge current-proof - selective "S" residual current devices.



IEC 60364-4-41 deals with additional protection: The use of RCDs with a rated residual operating current not exceeding 30 mA, is recognized in a.c. systems as additional protection in the event of failure of the provision for basic protection and/or the provision for fault protection or carelessness by users.

This means when using RCDs for fault current/residual current protection two RCDs must be connected in series.

Testing:

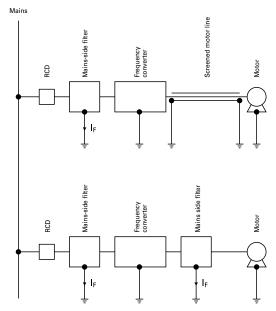
RCDs with tripping time delay (Types -G and -S) may be function tested with conventional testing equipment which must be set according to the instructions for operation of the testing device. Due to reasons inherent in the measuring process, the tripping time determined in this way may be longer than expected in accordance with the specifications of the manufacturer of the measuring instrument.

However, the device is ok if the result of measurement is within the time range specified by the manufacturer of the measuring instrument.

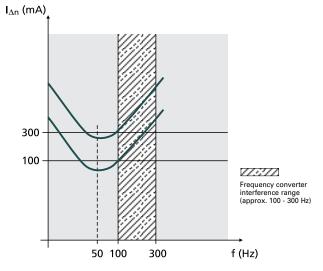
General

Hints for the application of our frequency converter-proof RCDs:

Due to the currents flowing off through the filters (designated IF), the sum of currents through the RCD is not exactly zero, which causes unwanted tripping.



Tripping characteristic



Frequency converters are used in a wide variety of systems and equipment requiring variable speed, such as lifts, escalators, conveyor belts, and large washing machines. Using them for such purposes in circuits with conventional residual current devices causes frequent problems with unwanted tripping.

The technical root cause of this phenomenon is the following: Fast switching operations involving high voltages cause high interference levels which propagate through the lines on the one hand, and in the form of interfering radiation on the other. In order to eliminate this problem, a mains-side filter (also referred to as input filter or EMC-filter) is connected between the RCD and frequency converter. The anti-interference capacitors in the filters produce discharge currents against earth which may cause unwanted tripping of the RCD due to the apparent residual currents. Connecting a filter on the output side between frequency converter and 3-phase AC motor results in the same behaviour.

This sample tripping characteristic of a 100 mA RCD and a 300 mA RCD shows the following: In the frequency range around 50 Hz, the RCDs trip as required (50 - 100 % of the indicated $I_{\Delta n}$).

In the range shown hatched in the diagram, i. e. from approx. 100 to 300 Hz, unwanted tripping occurs frequently due to the use of frequency converters. Frequency converter-proof residual current devices are much less sensitive in this frequency range than in the 50 - 60 Hz range, which leads to an enormous increase in the reliability of systems.

Therefore, we recommend to use RCDs designed for applications with frequency converter!

These special residual current devices can be recognised by an extension of the type designation ("-F"). They meet the requirements of compatibility between RCDs and frequency converters with respect to unwanted tripping.

These are NOT AC/DC-sensitive (IEC 62423) RCDs of type B !!!

Our RCDs of type "-F" are characterised by SENSITIVITY TO RESIDUAL PULSATING DC And SELECTIVITY S or SHORT-TIME DELAY G

SG17011



Description

- A complete spectrum of compact residual current devices for a wide range of applications
- For fault current/residual current protection and additional protection
- Wide variety of nominal currents
- Comprehensive range of accessories
- Real contact position indicator
- Automatic re-setting possible

 $I_n/I_{\Delta n}$ (A) Туре Article No. Units per Designation package

Type AC

Conditionally surge current-proof 250 A, type AC



2-pole			
16/0.01	PFIM-16/2/001	235389	1/60
25/0.03	PFIM-25/2/003	235390	1/60
25/0.10	PFIM-25/2/01	235391	1/60
25/0.30	PFIM-25/2/03	235392	1/60
25/0.50	PFIM-25/2/05	235393	1/60
40/0.03	PFIM-40/2/003	235394	1/60
40/0.10	PFIM-40/2/01	235395	1/60
40/0.30	PFIM-40/2/03	235396	1/60
40/0.50	PFIM-40/2/05	235397	1/60
63/0.03	PFIM-63/2/003	235398	1/60
63/0.10	PFIM-63/2/01	235399	1/60
63/0.30	PFIM-63/2/03	235400	1/60
63/0.50	PFIM-63/2/05	235401	1/60
80/0.03	PFIM-80/2/003	235402	1/60
80/0.10	PFIM-80/2/01	235403	1/60
80/0.30	PFIM-80/2/03	235404	1/60
80/0.50	PFIM-80/2/05	235405	1/60
100/0.03	PFIM-100/2/003	102821	1/60
100/0.10	PFIM-100/2/01	102874	1/60
100/0.30	PFIM-100/2/03	102822	1/60



PFIM-25/4/003	235406 1/30
PFIM-25/4/01	235407 1/30
PFIM-25/4/03	235408 1/30
PFIM-25/4/05	235409 1/30
PFIM-40/4/003	235410 1/30
PFIM-40/4/01	235411 1/30
PFIM-40/4/03	235412 1/30
PFIM-40/4/05	235413 1/30
PFIM-63/4/003	235414 1/30
PFIM-63/4/01	235415 1/30
PFIM-63/4/03	235416 1/30
PFIM-63/4/05	235417 1/30
PFIM-80/4/003	235418 1/30
PFIM-80/4/01	235419 1/30
PFIM-80/4/03	235420 1/30
PFIM-80/4/05	235421 1/30
PFIM-100/4/003	102823 1/30
PFIM-100/4/01	102824 1/30
PFIM-100/4/03	102825 1/30
PFIM-100/4/05	102826 1/30
	PFIM-25/4/01 PFIM-25/4/03 PFIM-25/4/05 PFIM-40/4/003 PFIM-40/4/01 PFIM-40/4/03 PFIM-40/4/05 PFIM-63/4/003 PFIM-63/4/01 PFIM-63/4/03 PFIM-63/4/03 PFIM-80/4/003 PFIM-80/4/003 PFIM-80/4/003 PFIM-80/4/01 PFIM-80/4/01 PFIM-80/4/03 PFIM-80/4/03 PFIM-80/4/03 PFIM-80/4/03 PFIM-100/4/003 PFIM-100/4/003

Protective Devices

Residual Current Devices PFIM (MW)

 $I_n/I_{\Delta n}$ (A) Туре Article No. Units per Designation package

Type A

Conditionally surge current-proof 250 A, sensitive to residual pulsating DC, type A







2-pole		
16/0.01	PFIM-16/2/001-A	235422 1/60
16/0.03	PFIM-16/2/003-A	235423 1/60
25/0.03	PFIM-25/2/003-A	235424 1/60
25/0.10	PFIM-25/2/01-A	235425 1/60
25/0.30	PFIM-25/2/03-A	235426 1/60
40/0.03	PFIM-40/2/003-A	235427 1/60
40/0.10	PFIM-40/2/01-A	235428 1/60
40/0.30	PFIM-40/2/03-A	235429 1/60
40/0.50	PFIM-40/2/05-A	235430 1/60
63/0.03	PFIM-63/2/003-A	235431 1/60
63/0.10	PFIM-63/2/01-A	235432 1/60
63/0.30	PFIM-63/2/03-A	235433 1/60
63/0.50	PFIM-63/2/05-A	235434 1/60
100/0.10	PFIM-100/2/01-A	102827 1/60
100/0.30	PFIM-100/2/03-A	102828 1/60

SG17011



4-pole		
25/0.03	PFIM-25/4/003-A	235435 1/30
25/0.10	PFIM-25/4/01-A	235436 1/30
25/0.30	PFIM-25/4/03-A	235437 1/30
25/0.50	PFIM-25/4/05-A	235438 1/30
40/0.03	PFIM-40/4/003-A	235439 1/30
40/0.10	PFIM-40/4/01-A	235440 1/30
40/0.30	PFIM-40/4/03-A	235441 1/30
40/0.50	PFIM-40/4/05-A	235442 1/30
63/0.03	PFIM-63/4/003-A	235443 1/30
63/0.10	PFIM-63/4/01-A	235444 1/30
63/0.30	PFIM-63/4/03-A	235445 1/30
63/0.50	PFIM-63/4/05-A	235446 1/30
80/0.03	PFIM-80/4/003-A	235447 1/30
80/0.30	PFIM-80/4/03-A	235448 1/30
100/0.03	PFIM-100/4/003-A	102829 1/30
100/0.10	PFIM-100/4/01-A	102870 1/30
100/0.30	PFIM-100/4/03-A	102871 1/30
100/0.50	PFIM-100/4/05-A	102872 1/30

$I_n/I_{\Delta n}$	Туре	Article No.	Units per
(A)	Designation		package

Type G

Surge current-proof 3 kA, type G (ÖVE E 8601)

G1661



2-pole		
25/0.03	PFIM-25/2/003-G	235449 1/60
25/0.10	PFIM-25/2/01-G	235450 1/60
40/0.03	PFIM-40/2/003-G	235451 1/60
40/0.10	PFIM-40/2/01-G	235452 1/60
100/0.10	PFIM-100/2/01-G	110100 1/60

G1701



4-pole		
40/0.03	PFIM-40/4/003-G	235453 1/30
40/0.10	PFIM-40/4/01-G	235455 1/30
63/0.03	PFIM-63/4/003-G	235456 1/30
63/0.10	PFIM-63/4/01-G	235458 1/30
80/0.03	PFIM-80/4/003-G	104385 1/30
100/0.03	PFIM-100/4/003-G	104383 1/30
100/0.3	PFIM-100/4/03-G	104384 1/30

Type G/A

Surge current-proof 3 kA, sensitive to residual pulsating DC, type G/A (ÖVE E 8601)

G16611



•		- <u> </u>
2-pole		
40/0.03	PFIM-40/2/003-G/A	108045 1/60
40/0.10	PFIM-40/2/01-G/A	109429 1/60
63/0.03	PFIM-63/2/003-G/A	108046 1/60
80/0.03	PFIM-80/2/003-G/A	108047 1/60
100/0.03	PFIM-100/2/003-G/A	108048 1/60

SG17011



4-pole		
40/0.03	PFIM-40/4/003-G/A	235454 1/30
63/0.03	PFIM-63/4/003-G/A	235457 1/30
63/0.10	PFIM-63/4/01-G/A	109771 1/30
100/0.03	PFIM-100/4/003-G/A	102875 1/30
100/0.30	PFIM-100/4/03-G/A	102873 1/30

Protective Devices

Residual Current Devices PFIM (MW)

 ${\rm I_n/I}_{\Delta \rm n}$ Туре Article No. Units per (A) Designation package

Type R

Surge current-proof 3 kA, X-ray application, type R



-			
- Л	n	•	l٠
-4-	μ	U	IC

63/0.03	PFIM-63/4/003-R	235459	1/30
100/0.03	PFIM-100/4/003-R	102876	1/30

Type S

40/0.30



Selective +	surge	current-	brooi a	κA, ι	/he o	· \

Polo	
)/0.10	PFIM-40/2/01-S

SG17011



4-pole		
25/0.30	PFIM-25/4/03-S	235463 1/30
80/0.10	PFIM-80/4/01-S	235473 1/30

PFIM-40/2/03-S

Type S/A

Selective + surge current-proof 5 kA, sensitive to residual pulsating DC, type S/A

235460

235461

1/60

1/60

2-pole			
40/0.10	PFIM-40/2/01-S/A	109770	1/60



PFIM-25/4/01-S/A	235464 1/30
PFIM-40/4/01-S/A	235467 1/30
PFIM-40/4/03-S/A	235468 1/30
PFIM-63/4/01-S/A	235471 1/30
PFIM-63/4/03-S/A	235472 1/30
PFIM-80/4/03-S/A	235475 1/30
PFIM-100/4/03-S/A	290220 1/30
	PFIM-40/4/01-S/A PFIM-40/4/03-S/A PFIM-63/4/01-S/A PFIM-63/4/03-S/A PFIM-80/4/03-S/A

Туре	Type Designation	Article No.	Units per package
Sealing Cover Set Z-RC/AK			
• for PFIM, PFR, PF6, PF7, dRCM			
2-pole	Z-RC/AK-2TE	285385	10/30
4-pole	Z-RC/AK-4 MU	101062	10/600



Residual Current Devices PFIM - Technical Data

Specifications | Residual Current Devices PFIM

Description

- · Residual Current Devices
- Shape compatible with and suitable for standard busbar connection to other devices of the P-series
- · Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- · Free terminal space despite installed busbar
- Universal tripping signal switch, also suitable for PLS., PKN., Z-A. can be mounted subsequently
- Auxiliary switch Z-HK can be mounted subsequently
- · Contact position indicator red green
- Delayed types suitable for being used with standard fluorescent tubes with or without electronical ballast (30mA-RCD: 30 units per phase conductor, 100mA-RCD: 90 units per phase conductor).
 - Notes: Depending of the fluorescent lamp ballast manufacturer partly more possible. Symmetrical allocation of the fluorescent lamp ballasts on all phases favourably. Shifting references of the fluorescent lamp ballast manufacturer consider.
- · The device functions irrespective of the position of installation
- Tripping is line voltage-independent. Consequently, the RCD is suitable for "fault current/residual current protection" and "additional protection" within the the meaning of the applicable installation rules
- · Mains connection at either side
- The 4-pole device can also be used for 2- or 3-pole connection. See connection possibilities.
- The test key "T" must be pressed every 6 month. The system operator must
 be informed of this obligation and his responsibility in a way that can be
 proven (self-adhesive RCD-label enclosed). The test intervall of 6 month is
 valid for residential and similar applications. Under all other conditions (e.g.
 damply or dusty environments), it's recommended to test in shorter intervalls
 (e.g. monthly).
- Pressing the test key "T" serves the only purpose of function testing the
 residual current device (RCD). This test does not make earthing resistance
 measurement (R_E), or proper checking of the earth conductor condition
 redundant, which must be performed separately.

- Type -A: Protects against special forms of residual pulsating DC which have not been smoothed.
- Type -G: High reliability against unwanted tripping. Suitable for any circuit
 where personal injury or damage to property may occur in case of unwanted
 tripping.
- Type -G/A: Additionally protects against special forms of residual pulsating DC which have not been smoothed.
- Special types for X-ray application PFIM-...-R.
- **Type -R**: To aviod unwanted tripping due to X-ray devices.
- Type -S: Selective residual current device sensitive to AC, type -S.
 Suitable for systems with surge arresters downstream of the RCD.
- Type -S/A: Additionally protects against special forms of residual pulsating DC which have not been smoothed.
- **Type -F**: Suitable for speed-controlled drives with frequency converters in household, trade, and industry.
 - Unwanted tripping is avoided thanks to a tripping characteristic designed particularly for frequency converters.

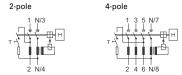
Accessories:			
Auxiliary switch for subsequent installation to the left	Z-HK	248432	
Tripping signal contact for subsequent installation to the right	Z-NHK	248434	
Remote control and automatic switching device	Z-FW/LP	248296	
Sealing cover set	Z-RC/AK-2TE	285385	
	Z-RC/AK-4 MU	101062	

Residual Current Devices PFIM - Technical Data

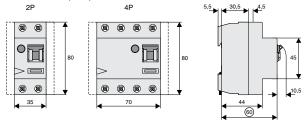
Technical Data					
				PFIM	
Electrical					
Design according to				IEC/EN 61008	
Current toot marke as	printed anto the device	20		Type G according to ÖVE E 8601	
	s printed onto the device	.e 			
Tripping Type G, R				instantaneous	
Type S				10 ms delay 40 ms delay - selective disconnectin	a function
Type U (only 30	1 mΛ\			10 ms delay	y function
Type U (withou				40 ms delay - selective disconnectin	a function
Rated voltage	it 50 mA)		U _n	230/400 V AC, 50 Hz	grancion
Rated tripping curren	†		$I_{\Delta n}$	10, 30, 100, 300, 500 mA	
Sensitivity			' <u>A</u> n	AC and pulsating DC	
Rated insulation volta	age		Ui	440 V	
Rated impulse withst	•		U _{imp}	4 kV (1.2/50 μs)	
Rated short-circuit st			I _{cn}	10 kA	
Maximum back-up fu	se PFIM				
Rating	Fuses			MCB's (Characteristic B/C)	
In [A]	Short-circuit [A]	Overload [A]		Short-circuit [A]	Overload [A]
16	63 gG/gl	10 gG/gl		_	_
25	63 gG/gl	16 gG/gl		C20	C20
40	63 gG/gl	25 gG/gl		C25	C25
63	63 gG/gl	40 gG/gl		C40	C40
80	80 gG/gl	50 gG/gl		_	-
100	100 gG/gl	63 gG/gl		_	_
Type PFIM-X:				_	
40	63 gG/gl	40 gG/gl		C25	C25
63	63 gG/gl	63 gG/gl		C40	C40
mplemented. Overload of the RCD.	d protection must be im			ossible operating current of the electrical	of the RCD only short-circuit protection must be installation can exceed the rated current
Rated breaking capac			I _m		
Rated fault breaking	capacity		$I_{\Delta m}$		
$I_n = 16-40 \text{ A}$				500 A	
$I_n = 63 \text{ A}$				630 A	
$I_n = 80 \text{ A}$				800 A	
I _n = 100 A	h			1000 A	
/oltage range of test	button			100 204 \/	
2-pole 4-pole 30 mA				196 - 264 V~ 196 - 264 V~	
4-pole 30 mA 4-pole 10, 100	200 E00 mA			196 - 456 V~	
ndurance	, 300, 300 IIIA			190 - 450 V~	
electrical comp	nonents			≥ 4,000 switching operations	
mechanical com				≥ 4,000 switching operations ≥ 20,000 switching operations	
Wechanical	тропоны			_ 20,000 Switching Operations	
rame size				45 mm	
Device height				80 mm	
Device width				35 mm (2 MU), 70 mm (4 MU)	
Mounting				quick fastening with 2 lock-in position	ons on DIN rail IEC/EN 60715
Degree of protection,	built-in			IP40	·
	in moisture-proof encl	osure		IP54	
Jpper and lower tern				open-mouthed/lift terminals	
erminal protection				finger and hand touch safe, DGUV V	S3, EN 50274
erminal capacity				1.5 - 35 mm ² single wire	
				2 x 16 mm ² multi wire	
Terminal screw				M5 (mit geschlitzter Schraube accord	ding to EN ISO 4757-Z2, Pozidriv PZ2)
erminal torque				2 - 2.4 Nm	
Busbar thickness				0.8 - 2 mm	
Operating temperatur				-25°C to +40°C	
Storage- and transpo				-35°C to +60°C	
Resistance to climati	c conditions			25-55°C/90-95% relative humidity a	ccording to IEC 60068-2

Residual Current Devices PFIM - Technical Data

Connection diagrams



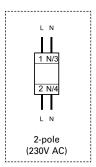




Correct connection

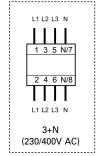
2-pole

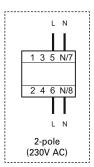
30, 100, 300, 500mA types:

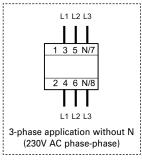


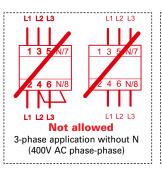
4-pole

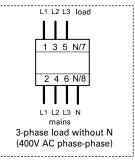
30mA types:



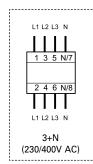


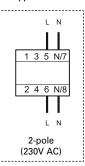


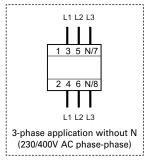


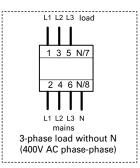


10, 100, 300, 500mA types:









1.14

Residual Current Devices PFIM - Technical Data

Influence of the ambient temperature to the maximum continuous current (A)

	16A		25A		25A 40A		63A				100A	
Ambient temperature	2р	4p	2р	4р	2р	4р	2р	4р	2р	4p	2p	4р
40°	16	16	25	25	40	40	63	63	80	80	100	100
45°	14	14	21	22	37	37	59	59	76	76	95	95
50°	11	11	18	19	33	34	55	55	72	72	90	90
55°	9	9	14	16	30	31	50	50	68	68	85	85
60°	- *)	_	_	_	26	27	45	45	64	64	80	80

Annotation: It has to be ensured that the values in the table are not exceeded and the back-up fuse/thermal protection works properly.

^{*)} not applicable

Eaton's electrical business is a global leader with deep regional application expertise in power distribution and circuit protection; power quality, backup power and energy storage; control and automation; life safety and security; structural solutions; and harsh and hazardous environment solutions. Through end-to-end services, channel and an integrated digital platform & insights Eaton is powering what matters across industries and around the world, helping customers solve their most critical electrical power management challenges.

For more information, visit **Eaton.com**.



Eaton Industries (Austria) GmbH Scheydgasse 42 1210 Vienna

EatonEMEA Headquarters
Route de la Longeraie 7
1110 Morges, Switzerland

© 2020 Eaton All Rights Reserved Printed in Austria Publication No. CA019027EN Article number 302697-MK December 2020 Grafics: SRA, Schrems Changes to the products, to the information contained in this document, and to prices are reserved; as are errors and omissions. Only order confirmations and technical documentation by Eaton is binding. Photos and pictures also do not warrant a specific layout or functionality. Their use in whatever form is subject to prior approval by Eaton. The same applies to trademarks (especially Eaton, Moeller, and Cutler-Hammer). The Terms and Conditions of Eaton apply, as referenced on Eaton Internet pages and Eaton order confirmations.

Eaton is a registered trademark.

All other trademarks are property of their respective owners.

Follow us on social media to get the latest product and support information.









