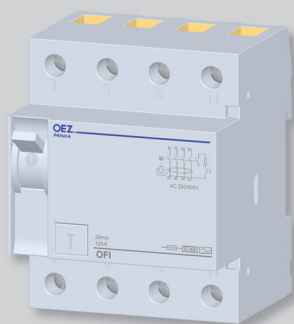


RESIDUAL CURRENT CIRCUIT BREAKERS OFI



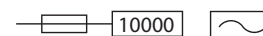
OFI-125-4-030AC

Residual current circuit breakers 100, 125 A, type AC, A

- Residual current circuit breakers with conditional short-circuit current 10 kA.
- For protection:
 - against dangerous contact with live parts ($I_{\Delta n} \leq 30$ mA)
 - against dangerous contact with dead parts
 - against fire or short-circuit in reduced insulation capacity of electrical equipment.
- Possibility of additional mounting of auxiliary switch PS-OF125-1100 on the right side of the device.
- Possibility of interconnection with circuit breakers LTP, LTS, LTN-UC by means of interconnecting busbars up or down.
- N-pole of residual current circuit breakers in switching on it closes before and in switching off it opens after the other poles.
- Residual current circuit breaker are testing once per 6 months.

Residual current circuit breakers 4-pole, type AC

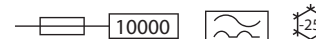
- They react to sine-wave residual current (type AC).
- Standard type for common use in building and housing installations up to 125 A, AC 230/400 V.
- Surge current resistance 1 kA (8/20 μ s).



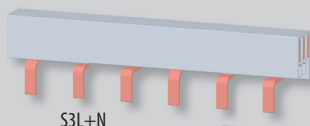
$I_{\Delta n}$ [mA]	I_n [A]	Type	Order code	Number of modules	Weight [kg]	Package [pcs]
30	100	OFI-100-4-030AC	OEZ:36819	4	0.520	1
	125	OFI-125-4-030AC	OEZ:36823	4	0.520	1
100	100	OFI-100-4-100AC	OEZ:36820	4	0.520	1
	125	OFI-125-4-100AC	OEZ:36824	4	0.520	1
300	100	OFI-100-4-300AC	OEZ:36821	4	0.520	1
	125	OFI-125-4-300AC	OEZ:36825	4	0.520	1
500	100	OFI-100-4-500AC	OEZ:36822	4	0.520	1
	125	OFI-125-4-500AC	OEZ:36826	4	0.520	1

Residual current circuit breakers 4-pole, type A

- They react to both sine-wave residual current and pulsating direct residual current (type A).
- Standard type for common use in building and industrial installations up to 125 A, AC 230/400 V.
- Surge current resistance 1 kA (8/20 μ s).



$I_{\Delta n}$ [mA]	I_n [A]	Type	Order code	Number of modules	Weight [kg]	Package [pcs]
30	100	OFI-100-4-030A	OEZ:36831	4	0.520	1
	125	OFI-125-4-030A	OEZ:36835	4	0.520	1
100	100	OFI-100-4-100A	OEZ:36832	4	0.520	1
	125	OFI-125-4-100A	OEZ:36836	4	0.520	1
300	100	OFI-100-4-300A	OEZ:36833	4	0.520	1
	125	OFI-125-4-300A	OEZ:36837	4	0.520	1
500	100	OFI-100-4-500A	OEZ:36834	4	0.520	1
	125	OFI-125-4-500A	OEZ:36838	4	0.520	1



S3L+N



AS-25-G



PS-OF125-1100





Accessories

Auxiliary switches	PS-OF125-1100	page C17
Interconnecting busbars	S3L+N, S3L-...FI-..¹⁾, S4L	page B45
Terminal extension	AS-25-G	page B47

¹⁾ For interconnection of the residual current circuit breaker with a series of circuit breakers where the series of circuit breakers needs to start from N-pole of the residual current circuit breaker.

RESIDUAL CURRENT CIRCUIT BREAKERS OFI

Specifications

Type		OFI-100-4 OFI-125-4
Standards		EN 61008 IEC 755
Approval marks		 
Number of poles		4
Type		AC, A  
Rated current	I_n	100, 125 A
Rated residual current	$I_{\Delta n}$	30, 100, 300, 500 mA
Rated operating voltage	U_e	AC 230/400 V
Min. operating voltage (for test button function)	U_{min}	AC 100 V
Max. operating voltage	U_{max}	AC 240/415 V
Rated frequency	f_n	50/60 Hz
Rated conditional short-circuit current	I_{nc}	10 kA (see table C15)
Rated making and breaking capacity	I_m	1 250 A
Surge resistance (8/20 us)		1 kA
Power loss		8.9 W/pole
Release delay		undelayed
Mechanical endurance		> 10 000 operating cycles
Electrical endurance		> 10 000 operating cycles
Degree of protection - with connected conductors		IP20
Mounting on "U" rail according to EN 60715 – type		TH 35
Connection		
Conductor Cu	upper terminal	2.5 ÷ 50 mm ²
	lower terminal	2.5 ÷ 50 mm ²
Torque		3.5 Nm
Top or bottom connection		top/bottom
Operating conditions		
Ambient temperature	A	-25 ÷ +45 °C
	AC	-5 ÷ +45 °C
Working position		arbitrary
Seismic resistance		IEC 980:1993 ¹⁾

¹⁾ It passed the seismic tests for NPP Dukovany and Temelin.

Protection of residual current circuit breakers

A) Short-circuit protection

In function principle, residual current circuit breaker is not possible to use for short-circuit protection. For circuit protection it is necessary to use a fuse or a circuit breaker, that cuts the short-circuited circuit safely off. The residual current circuit breaker must only withstand the through-going short-circuit current. The amplitude of the maximum through short-circuit current is defined as rated conditional short-circuit current I_{nc} . The table below indicates the rated conditional short-circuit current depending on the max. backup fuse and the circuit breaker.

Rated conditional short-circuit current with backup fuse

Design	Rated current I_n [A]	Max. backup fuse gG	Rated conditional short-circuit current I_{nc} [kA]
OFI	100 ÷ 125	125 A	10 kA

Rated conditional short-circuit current with backup circuit breaker

Residual current circuit breaker	Backup circuit breaker		Rated conditional short-circuit current I_{nc} [kA]
	Type	I_n of the circuit breaker	
OFI	LTS, LVN	$I_{n, MCB} \leq I_{n, RCCB}$	10 kA
	LTP	$I_{n, MCB} \leq I_{n, RCCB}$	6 kA

B) Protection against overload

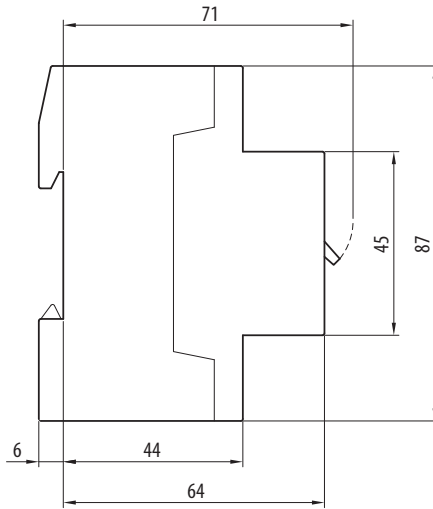
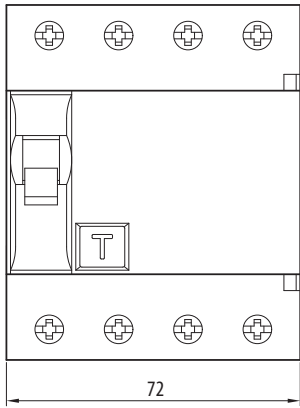
Protection of the residual current circuit breakers against overload may be provided by fuses or circuit breakers subject to following conditions:

- rated current of the fuse-link must be by one degree lower than rated current of the residual current circuit breaker $I_{n \text{ of the fuse by one degree lower}} \leq I_{n \text{ of the residual current circuit breaker}}$
- rated current of the circuit breaker must be equal or lower than the rated current of the residual current circuit breaker $I_{n \text{ of the circuit breaker}} \leq I_{n \text{ of the residual current circuit breaker}}$

RESIDUAL CURRENT CIRCUIT BREAKERS OFI

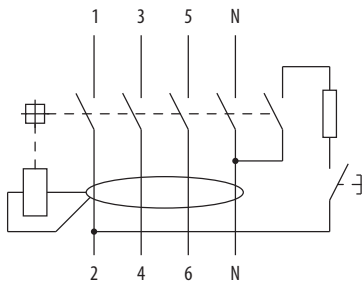
Dimensions

OFI-100/125



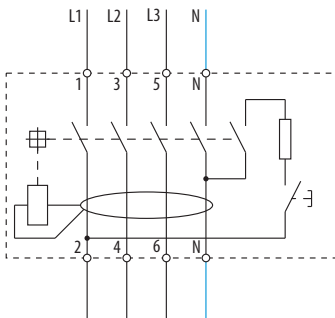
Diagram

OFI-100/125

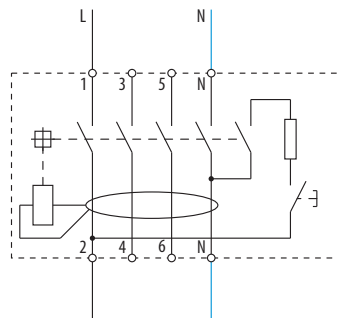


Connection

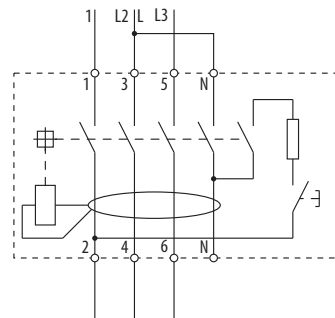
Standard connection of 4-pole residual current circuit breaker OFI 100, 125 A



4-pole residual current circuit breaker 100, 125 A in 1-phase circuits with N-pole



4-pole residual current circuit breaker 100, 125 A in 3-phase circuits without N-pole



RESIDUAL CURRENT CIRCUIT BREAKERS OFI



PS-OF125-1100

Auxiliary switches for residual current circuit breakers OFI

- Accessories only to residual current circuit breakers OFI.
- Installation on the right side of the residual current circuit breaker.
- For signalling the position of contacts of residual current circuit breakers OFI.

Accessories to	Type	Order code	Arrangement of contacts ¹⁾	Number of modules	Weight [kg]	Package [pcs]
OFI 100, 125 A	PS-OF125-1100	0EZ:36840	11	0.5	0.070	1

¹⁾ Each digit indicates successively the number of make and break contacts.

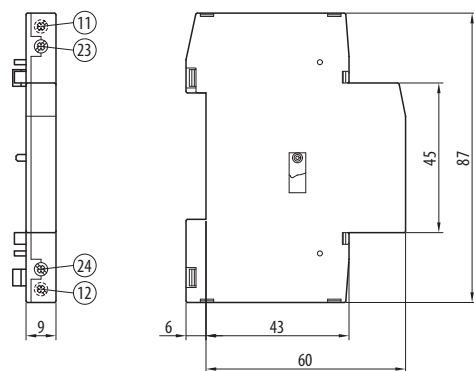
Specifications

Type		PS-OF125-1100
Standards		EN 62019 EN 60947-5-1
Approval marks		
Arrangement of contacts ¹⁾		11
Rated operating voltage/current	U _e /I _e	AC-12
		DC-12
		AC 230 V / 5 A
		DC 220 V / 0.5 A
		DC 110 V / 0.5 A
		DC 48 V / 0.5 A
		DC 24 V / 0.5 A
Min. voltage/current		AC 24 V / 50 mA
Short-circuit protection		miniature circuit breaker 6 A, characteristic B or C fuse 6 A gG
Electrical endurance		10 000 operating cycles
Degree of protection		IP20
Mounting		on the right side of the device
Connection		
Rigid conductor Cu (solid, stranded)		0.75 ÷ 2.5 mm ²
Conductor flexible		0.75 ÷ 2.5 mm ²
Torque		0.8 Nm
Top or bottom connection		top/bottom
Operating conditions		
Ambient temperature		-25 ÷ +45 °C
Working position		arbitrary

¹⁾ Each digit indicates successively the number of make and break contacts.

Dimensions

PS-OF125-1100



Diagram

PS-OF125-1100

