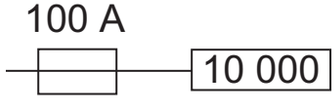
Rated current of the residual current protective device		Rated switching capacity I_m acc. to IEC/EN 61008 (VDE 0664) for a grid distance of 35 mm	Maximum permissible short-circuit back-up fuse, LV HRC, DIAZED, NEOZED operational class gL/gG for residual current protective device	
			125 ... 400 V AC	500 V AC
A		A	A	A
	Type A			
16 ... 40	2 MW	500	63	--
63	2.5 MW	800	100	--
80	2.5 MW	800	100	--
100	2 MW	1000	125	--
125	2 MW	1250	125	--
25 ... 63	4 MW	800	100	63
80	4 MW	800	100	--
100	4 MW	1000	125	--
125	4 MW	1250	125	--
	Type B			
25 ... 80	4 MW	800	100	--

Example:



Short-circuit strength 10 kA with max. permissible short-circuit back-up fuse 100 A.

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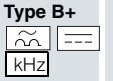
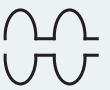
Types of current

Due to the use of electronic components in household appliances and industrial plants, insulation faults can also cause residual currents that are not AC residual currents to flow through residual current protective devices, even in the case of devices with PE/ground terminals (safety class I).

The regulations for residual current protective devices contain additional requirements and test regulations for residual currents whose power supply frequency is zero or virtually zero within a certain period.

Residual current protective devices that trip for both sinusoidal AC residual currents and pulsating DC residual currents (type A) are identified by the mark  .

Residual current protective devices that also trip for smooth DC residual currents (type B) are identified by the mark .

Type of current	Current waveform	Correct function of residual current protective devices of type			Tripping current[1]
		Type AC 	Type A 	Type B  Type B+ 	
AC residual current		✓	✓	✓	0.5 ... 1.0 $I_{\Delta n}$
Pulsating DC residual currents (pos. or neg. half-waves)		--	✓	✓	0.35 ... 1.4 $I_{\Delta n}$
Started half-wave currents					
Start angle 90° el		--	✓	✓	0.25 ... 1.4 $I_{\Delta n}$
Start angle 135° el			✓	✓	0.11 ... 1.4 $I_{\Delta n}$
Half-wave current during superimposition with smooth direct current of 6 mA		--	✓	✓	Max. 1.4 $I_{\Delta n}$ + 6 mA
Smooth direct current		--	--	✓	0.5 ... 2.0 $I_{\Delta n}$

[1] Tripping currents according to IEC/EN 61008-1 (VDE 0664, Part -10); for smooth DC residual currents defined to IEC 60755 UB1 INT.

Note:

You will find further information on the subject of residual current protective devices in the technology primer "Residual current protective devices", Order No.: E10003-E38-9T-B3011.