EDF-63 RCCB

General introduction

1.1 Function

Control electric circuits.
Protect people against indirect contacts and additional protection against direct contacts.
Protect installations against fire hazard due to insulation faults.
Residual current circuit breakers are used in housing, tertiary sector and industry.

1.2 Selection

Detectable wave form

Type B

Tripping is ensured for sinusoidal AC residual currents pulsed DC residual currents, alternating residual sinusoidal currents up to 1000Hz, pulsating direct residual currents and for smooth direct residual currents, whether applied suddenly or increasing slowly.

Tripping sensitivity

30mA - additional protection against direct contact.
100mA - co-ordinated with the earth system according to the formula IΔn < 50/R, to provide protection against indirect contacts;
300mA - protection against indirect contacts, as well as fire hazard.

Tripping time

Instantaneous

It ensures instantaneous tripping (without time-delay).

Application

Industry, medical, EV charger, elevator, etc

Conforms to standard

IEC/EN61008-1, IEC/EN62423 ; certified by CCC, SEMKO, CE

Detection residual current type

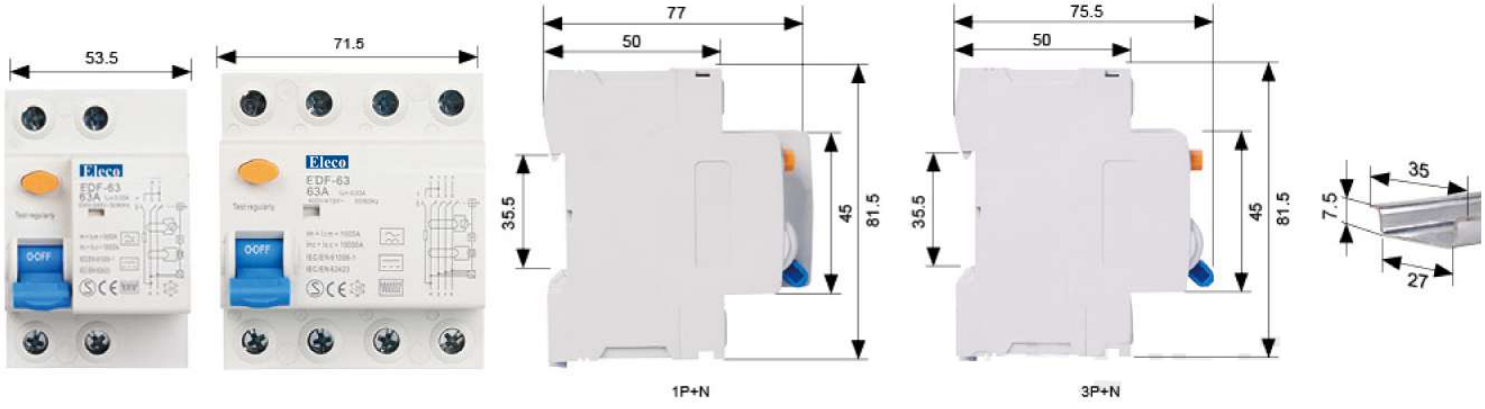
AC+A+ smoothing DC +F+ high frequency signal (1K Hz)

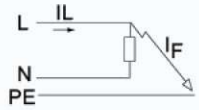
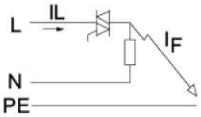
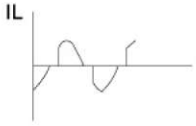
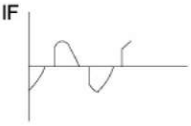
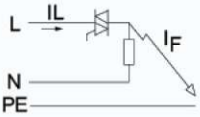
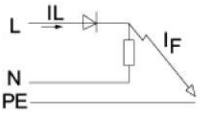
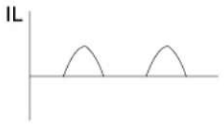
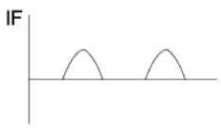
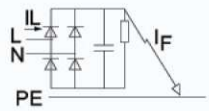
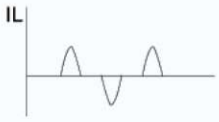
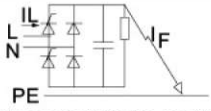
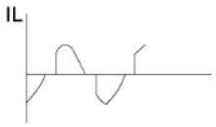
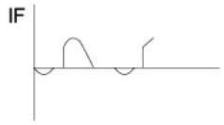
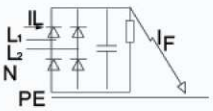
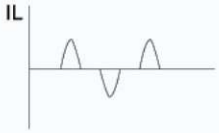
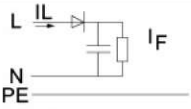
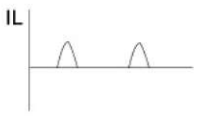
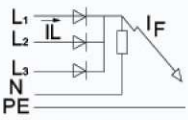
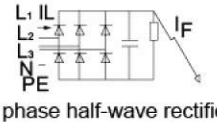
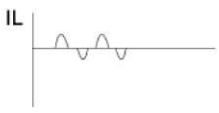
EDF-63 RCCB

2. Technical data

	Standard		IEC/EN 62423 & IEC/EN 61008-1
Electrical features	Type (wave form of the earth leakage sensed)		B
	Rated current In	A	25, 40, 63
	Poles		1P+N, 3P+N
	Rated voltage Ue	V	1P+N:230/240∨~; 3P+N:400/415v~;
	Rated sensitivity I△n	A	0.03, 0.1, 0.3
	Insulation voltage Ui	V	500
	Rated residual making and breaking capacity I△m	A	500 (In=25A/40A)
			630 (In=63A)
	Short-circuit current Inc=I△c	A	10,000
	SCPD fuse	A	10000
	break time under I△n	S	≤0.1
	Rated frequency	Hz	50
	Rated impulse withstand voltage(1.2/50) Uimp	V	4,000
	Dielectric test voltage at ind. Freq. for 1 min	kV	2.5
	Pollution degree		2
Mechanical features	Electrical life		2, 000
	Mechanical life		10,000
	Fault current indicator		Yes
	Protection degree		IP20
	Ambient temperature (with daily average≤35℃)	℃	-25...+40
	Storage temperation	℃	-25...+70
Installation	Terminal connection type		Cable/U-type busbar/Pin-type busbar
	Terminal size top/bottom for cable	mm^2	25/35
		AWG	18-3/18-2
	Terminal size top/bottom for busbar	mm^2	10/16
		AWG	18-8/18-5
	Tightening torque	N·m	2.5
		In-lbs.	22
	Mounting		On DIN rail EN 60715 (35mm) by means of fast clip device
	Connection		From top and bottom

3. Overall and mounting dimensions (mm)



Circuit diagram	Normal loop current	Loop current of earthing fault	Detection type of residual current		
			AC	A	B
 Single phase			✓	✓	✓
 Phase control			✓	✓	✓
 Impulse control			✓	✓	✓
 Single phase half-wave rectification			×	✓	✓
 Single phase full-wave rectification			×	✓	✓
 Single phase half-wave rectification, half phase control			×	✓	✓
 Single phase full-wave rectification			×	×	✓
 Single phase half-wave rectification, with filtering			×	×	✓
 Three phase half-wave rectification			×	×	✓
 Three phase half-wave rectification, with filtering			×	×	✓