



## RCBO's - Residual current circuit breakers with overcurrent protection

**IEC 61009**

**6kA**

**Series HD90** For pulsating DC and AC fault currents

**Series D90** For sinusoidal AC fault currents

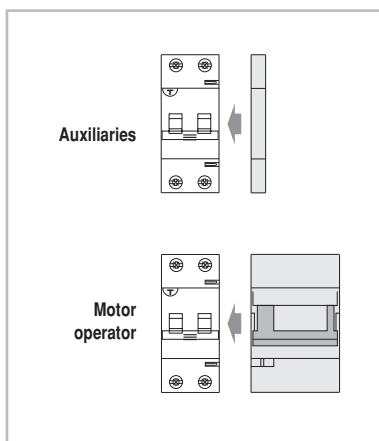
### Applications



### Approval / Marking



### Add-on devices



- Auxiliary contacts ● pg A.24
- Shunt trip ● pg A.24
- Undervoltage release ● pg A.24
- Panel board switch ● pg A.24
- Motor operator ● pg A.24

- Busbars ● chapter C
- Dimensions ● pg B.13

### Performances

<b>Thermal setting I<sub>n</sub></b>	(A) 4 to 40
<b>Residual current I<sub>Δn</sub></b>	(mA) 10, 30, 300
<b>Tripping characteristic</b>	B-C
<b>Rated voltage AC U<sub>n</sub></b>	(V) 240
<b>Minimum operating voltage U<sub>Bmin</sub></b>	(V) 117
<b>Mechanical/electrical endurance</b>	20000/10000
<b>Tropicalisation acc. to IEC 60068-2-28/2-30 and DIN 40046</b>	95%RH at 55°C
<b>Terminal capacity flexible/rigid cable (mm<sup>2</sup>)</b>	Top terminal: 16-25 Bottom terminal: 25-35
<b>Poles</b>	1+N
<b>Nuisance tripping resistance</b>	250A 8/20μs; 200A 0.5μs - 100kHz
<b>Ambient temperature</b>	(°C) Type AC: -5 upto 40 Type A: -25 upto 40
<b>Weight</b>	(g) 250

### Short-circuit capacity

According to IEC 61009 and IEC 60898	
<b>Residual making and breaking capacity</b>	I <sub>Δm</sub> = 6000A
<b>Short-circuit capacity</b>	I <sub>cn</sub> = 6000A at 240V
<b>Selectivity class</b>	3

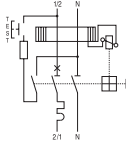
According to IEC 60947-2	
<b>Short-circuit capacity</b>	I <sub>cu</sub> =10000A at 240V

## Series HD90 - D90

Resistance to surge currents up to 250A

### B Characteristic 1P+N

230V



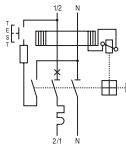
Thermal operating limit: 1.13 - 1.45 x I<sub>n</sub>  
Magnetic operating limit: 3 - 5 x I<sub>n</sub>

Rated current [A]	Rated fault current [mA]	HD90 Type A		D90 Type AC		Pack.
		Cat. No.	Ref. No.	Cat. No.	Ref. No.	
6	10	HD90 B06/010	604580	D90 B06/010	604642	1
10	10	HD90 B10/010	604581	D90 B10/010	604643	1
13	10	HD90 B13/010	604582	D90 B13/010	604644	1
16	10	HD90 B16/010	604583	D90 B16/010	604645	1
20	10	HD90 B20/010	604584	D90 B20/010	604646	1
6	30	HD90 B06/030	604585	D90 B06/030	604647	1
10	30	HD90 B10/030	604586	D90 B10/030	604648	1
13	30	HD90 B13/030	604587	D90 B13/030	604649	1
16	30	HD90 B16/030	604588	D90 B16/030	604650	1
20	30	HD90 B20/030	604589	D90 B20/030	604651	1
25	30	HD90 B25/030	604590	D90 B25/030	604652	1
32	30	HD90 B32/030	604591	D90 B32/030	604653	1
40	30	HD90 B40/030	604592	D90 B40/030	604654	1
6	300	HD90 B06/300	604601	D90 B06/300	604663	1
10	300	HD90 B10/300	604602	D90 B10/300	604664	1
13	300	HD90 B13/300	604603	D90 B13/300	604665	1
16	300	HD90 B16/300	604604	D90 B16/300	604666	1
20	300	HD90 B20/300	604605	D90 B20/300	604667	1
25	300	HD90 B25/300	604606	D90 B25/300	604668	1
32	300	HD90 B32/300	604607	D90 B32/300	604669	1
40	300	HD90 B40/300	604608	D90 B40/300	604670	1

Resistance to surge currents up to 250A

### C Characteristic 1P+N

230V



Thermal operating limit: 1.13 - 1.45 x I<sub>n</sub>  
Magnetic operating limit: 5 - 10 x I<sub>n</sub>

4	10	HD90 C04/010	604609	D90 C04/010	604671	1
6	10	HD90 C06/010	604610	D90 C06/010	604672	1
10	10	HD90 C10/010	604611	D90 C10/010	604673	1
13	10	HD90 C13/010	604612	D90 C13/010	604674	1
16	10	HD90 C16/010	604613	D90 C16/010	604675	1
20	10	HD90 C20/010	604614	D90 C20/010	604676	1
4	30	HD90 C04/030	604615	D90 C04/030	604677	1
6	30	HD90 C06/030	604616	D90 C06/030	604678	1
10	30	HD90 C10/030	604617	D90 C10/030	604679	1
13	30	HD90 C13/030	604618	D90 C13/030	604680	1
16	30	HD90 C16/030	604619	D90 C16/030	604681	1
20	30	HD90 C20/030	604620	D90 C20/030	604682	1
25	30	HD90 C25/030	604621	D90 C25/030	604683	1
32	30	HD90 C32/030	604622	D90 C32/030	604684	1
40	30	HD90 C40/030	604623	D90 C40/030	604685	1
4	300	HD90 C04/300	604633	D90 C04/300	604695	1
6	300	HD90 C06/300	604634	D90 C06/300	604696	1
10	300	HD90 C10/300	604635	D90 C10/300	604697	1
13	300	HD90 C13/300	604636	D90 C13/300	604698	1
16	300	HD90 C16/300	604637	D90 C16/300	604699	1
20	300	HD90 C20/300	604638	D90 C20/300	604700	1
25	300	HD90 C25/300	604639	D90 C25/300	604701	1
32	300	HD90 C32/300	604640	D90 C32/300	604702	1
40	300	HD90 C40/300	604641	D90 C40/300	604703	1

## Dimensions

