

Residual current protection circuit breakers

90 RCD

MDC - MONOBLOC COMPACT RCBO'S



90 RCD

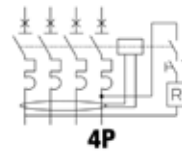
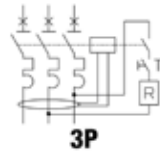
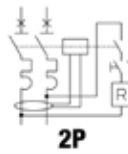
Modular circuit breakers for residual current protection

The 90 RCD range meets any ground fault protection requirement for any area of application. The range comprises MDC compact residual current c.b. with overcurrent protection (from 6 to 32 A, curves B and C, up to 10 kA and $I_{\Delta n}$ from 30 and 300 mA type AC, A, A[IR] and A[S]) BD and BDHP, add-on residual current devices for circuit breakers MT and MTHP ($I_{\Delta n}$ from 10 mA to 3 A type AC, A, A[IR], A[S] and A adjustable) SD residual current circuit breakers (up to 125 A, $I_{\Delta n}$ from 10 to 500 mA type AC, A, A[IR], A[S], B[IR] and B[S]).



Technical characteristics page 629

MDC - MONOBLOC COMPACT RCBO'S



MDC 45 - AC TYPE - C CURVE - 4500 A (EN 61009-1) - 4.5 KA (EN 60947-2)

BREAKING CAPACITY 1P+N-2P		
230V	EN61009-1	EN60947-2
I_{cn}	I_{cu}	I_{cu}
$I_n=6-32 A$	4500 A	6 kA

BREAKING CAPACITY 3-4P		
400V	EN61009-1	EN60947-2
I_{cn}	I_{cu}	I_{cu}
$I_n=6-32 A$	4500 A	4.5 kA



GW 94 027

COMPACT RESIDUAL CURRENT CIRCUIT BREAKERS WITH OVERCURRENT PROTECTION



Code	$I_{\Delta n}$	Rated current	Rated voltage	No. of modules EN 50022	Pack Carton
No. of poles: 1P+N					
GW 94 005	30 mA	6 A	230 V	2	1/6
GW 94 006	30 mA	10 A	230 V	2	1/6
GW 94 011	30 mA	13 A	230 V	2	1/6
GW 94 007	30 mA	16 A	230 V	2	1/6
GW 94 008	30 mA	20 A	230 V	2	1/6
GW 94 009	30 mA	25 A	230 V	2	1/6
GW 94 010	30 mA	32 A	230 V	2	1/6
GW 94 015	300 mA	6 A	230 V	2	1/6
GW 94 016	300 mA	10 A	230 V	2	1/6
GW 94 017	300 mA	16 A	230 V	2	1/6
GW 94 018	300 mA	20 A	230 V	2	1/6
GW 94 019	300 mA	25 A	230 V	2	1/6
GW 94 020	300 mA	32 A	230 V	2	1/6
No. of poles: 2P					
GW 94 025	30 mA	6 A	230 V	2	1/6
GW 94 026	30 mA	10 A	230 V	2	1/6
GW 94 031	30 mA	13 A	230 V	2	1/6
GW 94 027	30 mA	16 A	230 V	2	1/6
GW 94 028	30 mA	20 A	230 V	2	1/6
GW 94 029	30 mA	25 A	230 V	2	1/6
GW 94 030	30 mA	32 A	230 V	2	1/6
GW 94 035	300 mA	6 A	230 V	2	1/6
GW 94 036	300 mA	10 A	230 V	2	1/6
GW 94 037	300 mA	16 A	230 V	2	1/6
GW 94 038	300 mA	20 A	230 V	2	1/6
GW 94 039	300 mA	25 A	230 V	2	1/6
GW 94 040	300 mA	32 A	230 V	2	1/6

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90 RCD

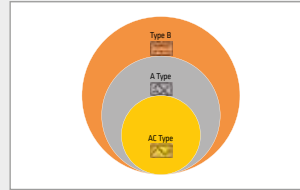


MAXIMUM PROTECTION IN MINIMUM SPACE



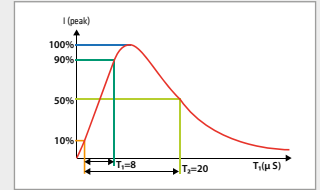
In the same application, the use of compact RCBO's guarantees a saving of the number of modules used which allows the installation of smaller distribution boards and therefore the cost is cheaper.

A CIRCUIT BREAKER FOR EVERY NEED



The 90 RCD range allows to meet all the needs of protection in electrical circuit with different types of earth fault currents, from sinusoidal alternating shape (AC type) and pulsating (A type), up to smooth DC shape (B type).

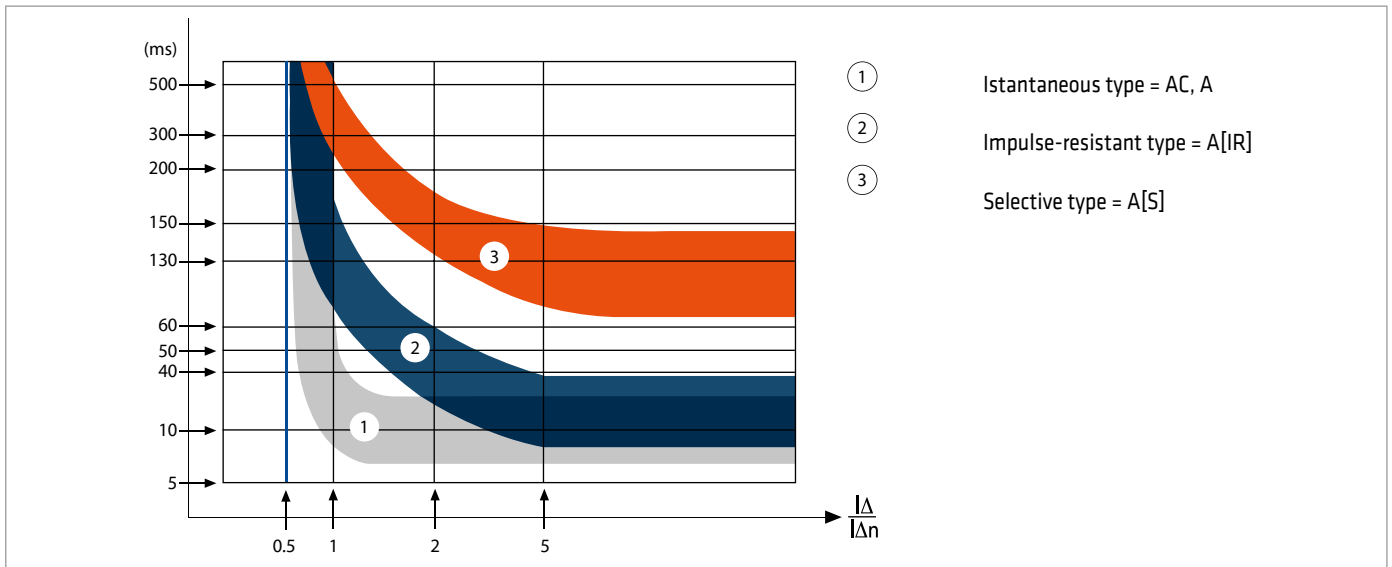
WITHOUT INTERRUPTION



The 90 RCD range also includes Impulse Resistant IR versions with high resistance to untimely tripping due to overvoltage impulses. These versions are particularly suitable for installations where the continuity of service is extremely important.

Residual current circuit breaker tripping characteristics

The following diagram shows the tripping range (relation between leakage current and tripping time) of the different type of RCCBs:



RCD TYPE	AC	A	B	Level of immunity (8/20μs)
RESIDUAL FAULT CURRENT TYPE	 • sinusoidal alternating	 • sinusoidal alternating • pulsating	 • sinusoidal alternating • pulsating • smooth DC	
1. INSTANTANEUS First level of residual-current protection against direct and indirect contacts	✓	✓		250A
2. IMPULSE RESISTANT Prevention of untimely tripping caused by: • overvoltages due to indirect lightning strikes (8/20 μs impulse current waveform up to 3000A) • overvoltages due to manoeuvres on electrical network • overvoltages due to earth fault on three-phase system • permanent harmonics due electronic devices (immunity to currents with frequency higher than 50Hz) • starting current (immunity to the ring wave waveform)		✓	✓	3000A
3. SELECTIVE Second level of residual-current protection for total or chronometric selectivity with downstream RCDs		✓	✓	3000A 5000A