



clem

**Interruttori differenziali
con e senza protezione
magnetotermica tipo B**

*Residual current circuit breakers
with and without overcurrent protection B type
(RCBOs and RCCBs B type)*

INTERRUTTORI DIFFERENZIALI MAGNETOTERMICI TIPO B / RCB0s B TYPE

N° POLI N° POLES	N° MODULI N° MODULES	V _n (V)	SENSIBILITÀ (mA) SENSITIVITY (mA)	I _n (A)	SK		NK	
					curva B / B curve	curva C / C curve	curva B / B curve	curva C / C curve
1P+N	2,5	230	30mA	6	572MB6B-SK	572MC6B-SK	572MB6B-NK	572MC6B-NK
				10	572MB10B-SK	572MC10B-SK	572MB10B-NK	572MC10B-NK
				16	572MB16B-SK	572MC16B-SK	572MB16B-NK	572MC16B-NK
				20	572MB20B-SK	572MC20B-SK	572MB20B-NK	572MC20B-NK
				25	572MB25B-SK	572MC25B-SK	572MB25B-NK	572MC25B-NK
				32	572MB32B-SK	572MC32B-SK	572MB32B-NK	572MC32B-NK
			100mA	6	542MB6B-SK	542MC6B-SK	542MB6B-NK	542MC6B-NK
				10	542MB10B-SK	542MC10B-SK	542MB10B-NK	542MC10B-NK
				16	542MB16B-SK	542MC16B-SK	542MB16B-NK	542MC16B-NK
				20	542MB20B-SK	542MC20B-SK	542MB20B-NK	542MC20B-NK
				25	542MB25B-SK	542MC25B-SK	542MB25B-NK	542MC25B-NK
				32	542MB32B-SK	542MC32B-SK	542MB32B-NK	542MC32B-NK
			300mA	6	562MB6B-SK	562MC6B-SK	562MB6B-NK	562MC6B-NK
				10	562MB10B-SK	562MC10B-SK	562MB10B-NK	562MC10B-NK
				16	562MB16B-SK	562MC16B-SK	562MB16B-NK	562MC16B-NK
				20	562MB20B-SK	562MC20B-SK	562MB20B-NK	562MC20B-NK
				25	562MB25B-SK	562MC25B-SK	562MB25B-NK	562MC25B-NK
				32	562MB32B-SK	562MC32B-SK	562MB32B-NK	562MC32B-NK
3P+N	4,5	400	30mA	6	574MB6B-SK	574MC6B-SK	574MB6B-NK	574MC6B-NK
				10	574MB10B-SK	574MC10B-SK	574MB10B-NK	574MC10B-NK
				16	574MB16B-SK	574MC16B-SK	574MB16B-NK	574MC16B-NK
				20	574MB20B-SK	574MC20B-SK	574MB20B-NK	574MC20B-NK
				25	574MB25B-SK	574MC25B-SK	574MB25B-NK	574MC25B-NK
				32	574MB32B-SK	574MC32B-SK	574MB32B-NK	574MC32B-NK
			100mA	6	544MB6B-SK	544MC6B-SK	544MB6B-NK	544MC6B-NK
				10	544MB10B-SK	544MC10B-SK	544MB10B-NK	544MC10B-NK
				16	544MB16B-SK	544MC16B-SK	544MB16B-NK	544MC16B-NK
				20	544MB20B-SK	544MC20B-SK	544MB20B-NK	544MC20B-NK
				25	544MB25B-SK	544MC25B-SK	544MB25B-NK	544MC25B-NK
				32	544MB32B-SK	544MC32B-SK	544MB32B-NK	544MC32B-NK
			300mA	6	564MB6B-SK	564MC6B-SK	564MB6B-NK	564MC6B-NK
				10	564MB10B-SK	564MC10B-SK	564MB10B-NK	564MC10B-NK
				16	564MB16B-SK	564MC16B-SK	564MB16B-NK	564MC16B-NK
				20	564MB20B-SK	564MC20B-SK	564MB20B-NK	564MC20B-NK
				25	564MB25B-SK	564MC25B-SK	564MB25B-NK	564MC25B-NK
				32	564MB32B-SK	564MC32B-SK	564MB32B-NK	564MC32B-NK

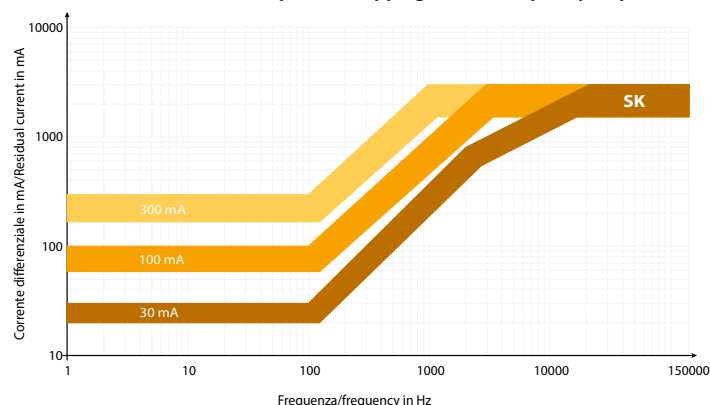


1P + N
2,5 modules only

3P + N
4,5 modules only

**INGOMBRI
RIDOTTI
REDUCED
DIMENSIONS**

Curva di intervento in frequenza / Tripping current frequency response



B+

curva B / B curve	curva C / C curve
572MB6B-B+	572MC6B-B+
572MB10B-B+	572MC10B-B+
572MB16B-B+	572MC16B-B+
572MB20B-B+	572MC20B-B+
572MB25B-B+	572MC25B-B+
572MB32B-B+	572MC32B-B+
542MB6B-B+	542MC6B-B+
542MB10B-B+	542MC10B-B+
542MB16B-B+	542MC16B-B+
542MB20B-B+	542MC20B-B+
542MB25B-B+	542MC25B-B+
542MB32B-B+	542MC32B-B+
562MB6B-B+	562MC6B-B+
562MB10B-B+	562MC10B-B+
562MB16B-B+	562MC16B-B+
562MB20B-B+	562MC20B-B+
562MB25B-B+	562MC25B-B+
562MB32B-B+	562MC32B-B+

574MB6B-B+	574MC6B-B+
574MB10B-B+	574MC10B-B+
574MB16B-B+	574MC16B-B+
574MB20B-B+	574MC20B-B+
574MB25B-B+	574MC25B-B+
574MB32B-B+	574MC32B-B+
544MB6B-B+	544MC6B-B+
544MB10B-B+	544MC10B-B+
544MB16B-B+	544MC16B-B+
544MB20B-B+	544MC20B-B+
544MB25B-B+	544MC25B-B+
544MB32B-B+	544MC32B-B+
564MB6B-B+	564MC6B-B+
564MB10B-B+	564MC10B-B+
564MB16B-B+	564MC16B-B+
564MB20B-B+	564MC20B-B+
564MB25B-B+	564MC25B-B+
564MB32B-B+	564MC32B-B+

L'impiego di apparecchiature elettroniche quali i convertitori di frequenza sta diventando sempre più comune nelle installazioni elettriche. In caso di guasto, potrebbero insorgere correnti continue e correnti alternate ad alta frequenza, che un normale interruttore differenziale tipo A non è in grado di rilevare. Per tale ragione è opportuno utilizzare nell'ambito di questa tipologia di applicazioni specifici interruttori differenziali denominati "tipo B".

Un classico esempio sono le colonnine di ricarica delle auto elettriche (CEI 64-8 art. 722.531.1). La gamma di applicazioni include macchinari quali ascensori, scale mobili, sistemi di ventilazione, azionamenti pompe, saldatrici, macchine per lavaggio industriale, sistemi di depurazione, strumentazione ed attrezzature elettro-medicali (raggi x etc.), installazioni in centri commerciali, industria, agricoltura, etc.

La gamma Italclem di interruttori tipo B comprende differenziali puri e differenziali magnetotermici sensibili alle correnti continue, installabili su barra DIN, in conformità alle normative EN 61008-1, EN 61009-1, EN 62423. Le versioni disponibili sono:

- **Versione NK:** gli interruttori NK sono destinati all'impiego in quelle installazioni elettriche dove è importante avere una valida protezione contro il rischio di incendi in presenza di una vasta gamma di frequenze;
- **Versione SK:** gli apparecchi SK sono raccomandati in quei casi in cui si possano presentare elevate correnti di dispersione nello spettro di frequenze del convertitore ma, al contempo, non è richiesta una specifica protezione antincendio. Fenomeni di scatti indesiderati sono evitati grazie ad una incrementata insensibilità alle frequenze più elevate;
- **Versione B+:** gli interruttori B+ rilevano correnti in frequenza fino a 20kHz con una soglia di intervento massima di 420mA: sono indicati nel caso di necessità di protezione contro gli incendi.

The use of electronic equipment (e.g. frequency converters) in electrical installations is constantly increasing. In the event of a fault, smooth DC residual currents and high frequency AC residual currents may arise; these will not be detected by a Standard type A residual current protective device.

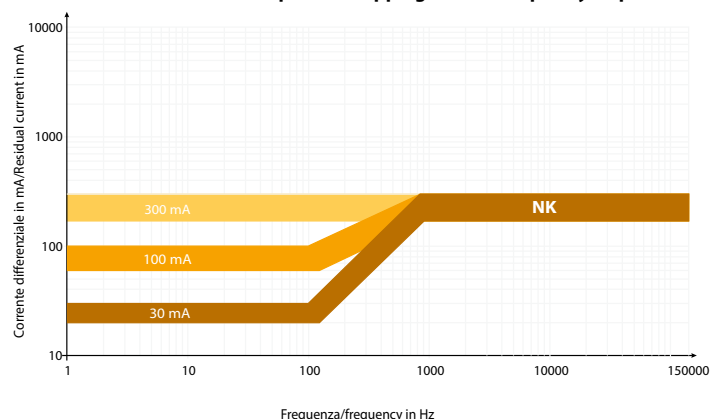
This is the reason type B residual current protective devices should be used especially for such applications.

A typical example is the protection of charging stations for EV – vehicles, as prescribed in Wiring Regulations (IEC 60364-7-722). Other cases of applications are: escalators, elevators, ventilation systems, pump controls, building site power distributions, welding equipment, industrial washing machines. In shopping centres, industry, agricultural workshops, sewage works, medical-technical applications (X-ray equipment, MRT).

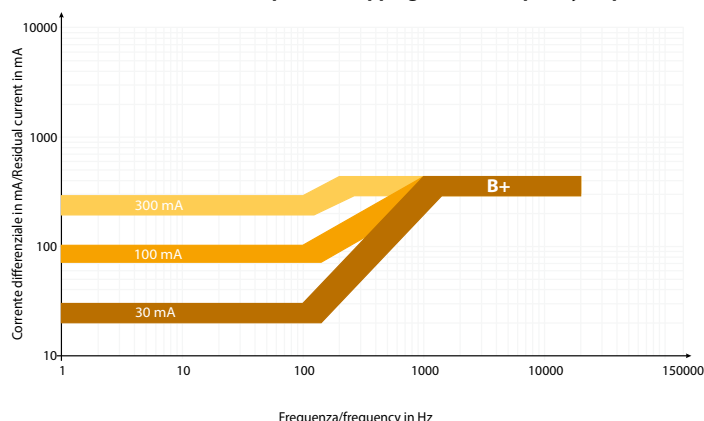
Our range includes AC-DC sensitive RCCBs and RCBOs for DIN-rail mounting which are in compliance respectively with VDE 0664 Part 10, 100 and 400, and VDE 0664 Part 20, 200 and 401. These items have three different characteristics of the tripping frequency course:

- **NK version:** devices with the NK suffix are specially designed for use in electrical installations where reliable fire protection over a wide frequency range is required;
- **SK version:** the SK version is suitable for applications in electrical installations where particularly high leakage currents within the range of the switching frequency of frequency converters are to be expected and no fire protection is demanded. Due to an increased insensitivity in the upper frequency range, unwanted tripping can largely be avoided;
- **B+ version:** these devices detect residual currents in all frequencies up to 20 kHz with a maximum tripping threshold of 420mA. They are suitable for use where fire protection is required.

Curva di intervento in frequenza / Tripping current frequency response



Curva di intervento in frequenza / Tripping current frequency response



INTERRUTTORI DIFFERENZIALI PURI TIPO B / RCCBs B TYPE

N° POLI N° POLES	N° MODULI N° MODULES	V _n (V)	SENSIBILITÀ (mA) SENSITIVITY (mA)	I _n (A)	CODICE / CODE	
					SK	NK
	2	230	30mA	25	3722P25B-SK	3722P25B-NK
				40	3722P40B-SK	3722P40B-NK
				63	3722P63B-SK	3722P63B-NK
				80	3722P80B-SK	3722P80B-NK
	4			100	372P100B-SK	372P100B-NK
				125	372P125B-SK	372P125B-NK
	2		300mA	25	3622P25B-SK	3622P25B-NK
				40	3622P40B-SK	3622P40B-NK
				63	3622P63B-SK	3622P63B-NK
				80	3622P80B-SK	3622P80B-NK
	4			100	362P100B-SK	362P100B-NK
				125	362P125B-SK	362P125B-NK
	4	400	30mA	25	374P25B-SK	374P25B-NK
				40	374P40B-SK	374P40B-NK
				63	374P63B-SK	374P63B-NK
				80	374P80B-SK	374P80B-NK
				100	374P100B-SK	374P100B-NK
				125	374P125B-SK	374P125B-NK
			300mA	25	364P25B-SK	364P25B-NK
				40	364P40B-SK	364P40B-NK
				63	364P63B-SK	364P63B-NK
				80	364P80B-SK	364P80B-NK
				100	364P100B-SK	364P100B-NK
				125	364P125B-SK	364P125B-NK

Italclem S.r.l.
www.italclem.com info@italclem.com

Stabilimento / Factory: 38089 Storo (Trento) - Italy

Sede amministrativa e commerciale / Administrative and commercial office:

25124 Brescia - Italy - Via Cefalonia, 70

Tel: +39 030 224572 / 2422281 Fax: +39 030 224468

