

PROTEC B2S(R) Series



- **Category IEC / EN / VDE:** Class I, II / Type 1, 2 / B, C
- **Location of use:** Main distribution boards
- **Network system:** TT, TN-S
- **Protection modes:** L-N, N-PE
- **Protective element:** High energy MOV and GDT
- **Surge discharge rating:**  $I_{imp}$  = 12.5kA/50kA (L-N/N-PE)
- **MOV max. withstand capability 1 x 8/20:** 100kA per pole
- **Housing:** Modular design
- **Complies with:** IEC/EN 61643-11



Technical data

Type		150	275	320	385	440
<b>Electrical characteristics</b>						
Max. continuous operating voltage (AC/DC)	$U_C$ (L-N)	150/200V	275/350V	320/420V	385/500V	440/580V
	$U_C$ (N-PE)			255V		
Nominal discharge current (8/20)	$I_n$ (L-N/N-PE)			25kA/30kA		
Max. discharge current (8/20)	$I_{max}$ (L-N/N-PE)			60kA/50kA		
Impulse current (10/350)	$I_{imp}$ (L-N/N-PE)			12.5kA/50kA		
Specific energy	W/R (L-N/N-PE)			39kJ/Ω/2.5MJ/Ω		
Charge	Q (L-N/N-PE)			6.25As/50As		
Protection level	$U_p$ (L-N)	< 1.0kV	< 1.4kV	< 1.5kV	< 1.7kV	< 2.0kV
	$U_p$ (N-PE)			< 1.7kV		
Residual voltage at $I_{imp}$	$U_{res}$ (L-N)	< 0.7kV	< 1.0kV	< 1.1kV	< 1.4kV	< 1.5kV
Residual voltage at 5kA (8/20)	$U_{res}$ (L-N)	< 0.6kV	< 0.9kV	< 1.0kV	< 1.3kV	< 1.4kV
Follow current	$I_{fi}$ (N-PE)			100ARMS		
Response time	$t_A$ (L-N/N-PE)			< 25ns/100ns		
Thermal protection	(L-N)			YES		
Back-up fuse (if mains > 160A)	(L-N)			160A gL		
Short-circuit withstand current	$I_{SCCR}$ (L-N)			25kA/50Hz		
<b>Mechanical characteristics</b>						
Temperature range				- 40°C .... + 80°C		
Terminal screw torque				max. 3.0Nm		
Terminal cross section				35mm <sup>2</sup> (solid)/25mm <sup>2</sup> (stranded)		
Mounting				35mm DIN rail, EN 60715		
Degree of protection				IP 20		
Housing material				Thermoplastic; extinguishing degree UL 94 V-0		
Indication of disconnector operation				red flag		
Remote contacts (RC)				YES		
Contact ratings				AC: 250V/0.5A; 125V/3A		
Terminal cross section				max. 1.5mm <sup>2</sup>		
Remote terminal torque				0.25Nm		

Ordering information

$U_C$	150	275	320	385	440
Ordering code PROTEC B2S 25/xxx (1+1)	506.037	506.038	506.039	506.040	506.041
Ordering code PROTEC B2SR 25/xxx (1+1) (with remote contacts)	506.042	506.043	506.044	506.045	506.046
Ordering code PROTEC B2S 50/xxx (3+1)	506.067	506.068	506.069	506.070	506.071
Ordering code PROTEC B2SR 50/xxx (3+1) (with remote contacts)	506.072	506.073	506.074	506.075	506.076
Ordering code Module PROTEC B2S(R) 12.5/xxx	506.001	506.002	506.003	506.004	506.005
Ordering code Module PROTUBE B2S 50/255			506.006		