

DATA SHEET

Modular Multi-pole SPD
ProTec B2S(R) 50 (4+0)
Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards
 Network Systems: TN-S
 Mode of Protection: L-PE, N-PE
 Surge Ratings: $I_{imp} = 12.5 \text{ kA (10/350}\mu\text{s)}$
 $I_n = 25 \text{ kA (8/20}\mu\text{s)}$
 IEC/EN Category: Class I, II / Type 1, 2
 Protective Elements: High Energy MOV
 Housing: Modular Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012

Technical Data

ProTec B2S(R) 50/xxx (4+0)

150 275 320 385 440

Electrical

Nominal AC Voltage (50/60 Hz)	U_o	120 V	230 V	230 V	230 V	230 V
Maximum Continuous Operating Voltage (AC)	U_c	150 V	275 V	320 V	385 V	440 V
Nominal Discharge Current (8/20 μs)	I_n			25 kA		
Maximum Discharge Current (8/20 μs)	I_{max}			60 kA		
Impulse Discharge Current (10/350 μs)	I_{imp}			12.5 kA		
Total Discharge Current (10/350 μs)	I_{total}			50 kA		
Specific Energy	W/R			39 kJ/ Ω		
Charge	Q			6.25 As		
Voltage Protection Level	U_p	< 1.0 kV	< 1.4 kV	< 1.5 kV	< 1.7 kV	< 2.0 kV
Response Time	t_A			< 25 ns		
Back-Up Fuse (if mains > 160 A)				160 A gG		
Short-Circuit Current Rating (AC)	I_{SCCR}			25 kA		
TOV withstand 5s	U_T	174 V	335 V	335 V	403 V	580 V
Number of Ports				1		

Mechanical & Environmental

Temperature Range	T_a	-40 °C to +85 °C				
Permissible Humidity	RH	5%...95%				
Terminal Screw Torque	M_{max}	3.0 Nm				
Conductor Cross Section (max)		35 mm ² (solid) / 25 mm ² (stranded)				
Mounting		35 mm DIN Rail, EN 60715				
Degree of Protection		IP 20				
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0				
Thermal Protection		Yes				
Fault Indication		Red Flag				
Remote Contacts (RC)		Optional				
RC Switching Capacity		AC: 250V/0.5 A; 125V/3 A				
RC Terminal Cross Section (max)		1.5 mm ²				
RC Terminal Screw Torque	M_{max}	0.25 Nm				

Order Information

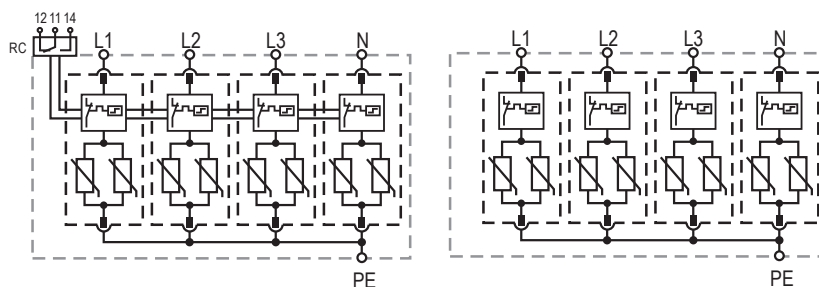
Order Code	150	275	320	385	440
PROTEC B2S 50/xxx (4+0)	506.445	506.417	506.446	506.418	506.447
PROTEC B2SR 50/xxx (4+0) (with remote contacts)	506.448	506.419	506.449	506.420	506.450
Module PROTEC B2S(R) 12.5/xxx	506.471	506.472	506.473	506.474	506.475

ProTec B2S(R) 50 (4+0)

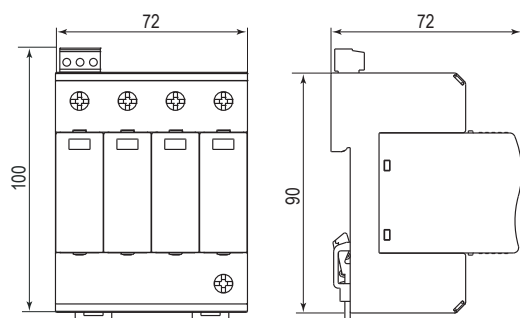
Internal Configuration

Legend

- L Line
- N Neutral
- PE Protective Earth
- RC Remote Contacts Optional



Dimensions & Packaging [mm]



Dimensions & Packaging

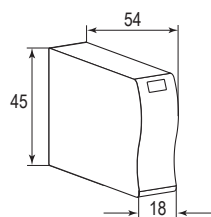
ProTec B2S 50/xxx (4+0)	150	275	320	385	440
Single Unit Weight	366 g	462 g	462 g	494 g	526 g
Single Unit DIN 43880 Dimension	4 TE				
Packaging Dimensions (H x W x L)	109 x 77 x 80 mm				
Minimum Order Quantity	3 Units				
ProTec B2SR 50/xxx (4+0)	150	275	320	385	440
Single Unit Weight	371 g	467 g	467 g	499 g	531 g
Single Unit DIN 43880 Dimension	4 TE				
Packaging Dimensions (H x W x L)	109 x 77 x 80 mm				
Minimum Order Quantity	3 Units				

Module Internal Configuration

Module ProTec B2S(R) 12.5/xxx



Dimensions & Packaging [mm]



Dimensions & Packaging

Module ProTec B2S(R) 12.5/xxx	150	275	320	385	440
Single Unit Weight	78g	88g	102g	116g	128g
Single Unit DIN 43880 Dimension	1 TE				
Packaging Dimensions (H x W x L)	98 x 77 x 110 mm				
Minimum Order Quantity	12 Units				