

Modular Multi-pole SPD

ProTec C(R) 120 (3+0)

Class II • Type 2



Location of Use: Sub-distribution Boards
 Network Systems: TN-C
 Mode of Protection: L - PEN
 Surge Ratings: $I_n = 20 \text{ kA}$ (8/20 μs)
 $I_{\text{max}} = 40 \text{ kA}$ (8/20 μs)
 IEC/EN Category: Class II / Type 2
 Protective Elements: High Energy MOV
 Housing: Modular Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012

Technical Data

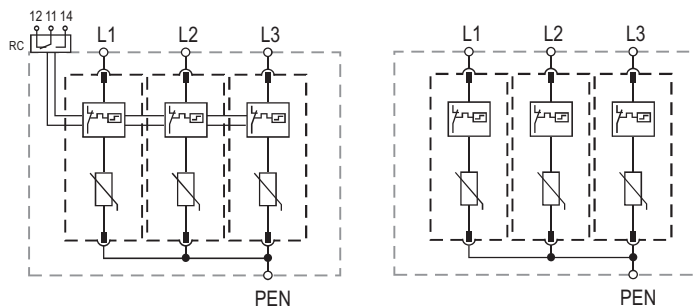
ProTec C(R) 120/xxx (3+0)		150	275	320	385	440
Electrical						
Nominal AC Voltage (50/60 Hz)	U_o	120V	230V	230V	230V	230V
Maximum Continuous Operating Voltage (AC)	U_c	150V	275V	320V	385V	440V
Nominal Discharge Current (8/20 μs)	I_n			20kA		
Maximum Discharge Current (8/20 μs)	I_{max}			40kA		
Voltage Protection Level	U_p	< 1.0kV	< 1.5kV	< 1.5kV	< 1.9kV	< 2.0kV
Response Time	t_A			< 25 ns		
Back-Up Fuse (if mains > 125 A)				125 A gG		
Short-Circuit Current Rating (AC)	I_{SCCR}			25 kA		
TOV Withstand 5s	U_T	174V	335V	335V	438V	438V
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}			3.0Nm		
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}			0.25Nm		
Order Information						
Order Code		150	275	320	385	440
PROTEC C 120/xxx (3+0)		50.A102	50.A052	50.A103	50.A059	50.A104
PROTEC CR 120/xxx (3+0) (with remote contacts)		50.A105	50.A053	50.A106	50.A060	50.A107
Module PROTEC C(R) 40/xxx		50.A074	50.A075	50.A049	50.A076	50.A077

ProTec C(R) 120 (3+0)

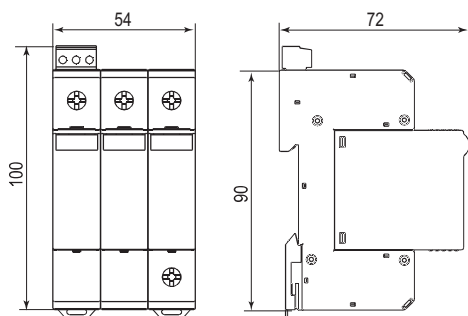
Internal Configuration

Legend

- L Line
- N Neutral
- PEN Combined Protective Earth and Neutral
- RC Remote Contacts Optional



Dimensions & Packaging [mm]

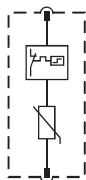


Dimensions & Packaging

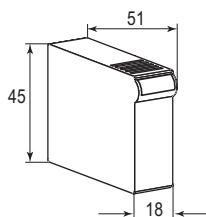
ProTec C 120/xxx (3+0)	150	275	320	385	440
Single Unit Weight	330 g	352 g	352 g	354 g	356 g
Single Unit DIN 43880 Dimension	3 TE				
Packaging Dimensions (H x W x L)	109 x 77 x 62 mm				
Minimum Order Quantity	5 Units				
ProTec CR 120/xxx (3+0)	150	275	320	385	440
Single Unit Weight	335 g	357 g	357 g	359 g	361 g
Single Unit DIN 43880 Dimension	3 TE				
Packaging Dimensions (H x W x L)	109 x 77 x 62 mm				
Minimum Order Quantity	5 Units				

Module Internal Configuration

Module ProTec C(R) 40/xxx



Dimensions & Packaging [mm]



Dimensions & Packaging

Module ProTec C(R) 40/xxx	150	275	320	385	440
Single Unit Weight	48 g	52 g	56 g	58 g	60 g
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				

Applicable connection configurations can be found on page 178.