

Modular Multi-pole SPD

ProTec C(R) 80 (1+1)

Class II•Type 2



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

Technical Data

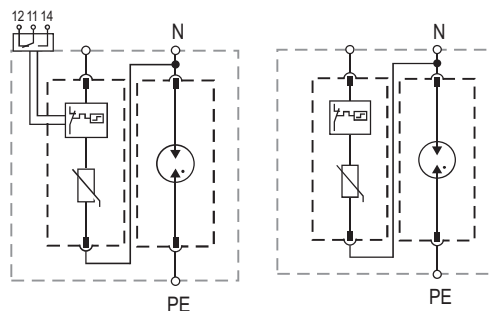
ProTec C(R) 80/xxx (1+1)		150	275	320	385	440
Electrical						
Nominal AC Voltage (50/60 Hz)	U_o	120V	230V	230V	230V	230V
Maximum Continuous Operating Voltage (AC)	(L-N) U_c	150V	275V	320V	385V	440V
	(N-PE) U_c			255V		
Nominal Discharge Current (8/20 μs)	(L-N)/(N-PE) I_n			20kA/20kA		
Maximum Discharge Current (8/20 μs)	(L-N)/(N-PE) I_{max}			40kA/40kA		
Voltage Protection Level	(L-N) U_p	< 1,0kV	< 1,5kV	< 1,5kV	< 1,9kV	< 2,0kV
	(N-PE) U_p			< 1,5kV		
Follow Current Interrupt Rating	(N-PE) I_{fi}			100 A _{RMS}		
Response Time	(L-N)/(N-PE) t_A			< 25 ns / < 100 ns		
Back-Up Fuse (if mains > 125 A)				125 A gG		
Short-Circuit Current Rating (AC)	I_{SCCR}			25 kA		
TOV Withstand 5s	(L-N) U_T	174V	335V	335V	438V	438V
TOV Withstand 200ms	(N-PE) U_T			1200V/300 A		
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	(L-N)/(N-PE)			Yes/No		
Fault Indication	(L-N)/(N-PE)			Red Flag/No		
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 C 80/xxx (1+1)		50.A116	50.A117	50.A118	50.A119	50.A120
PROTEC CR 80/xxx (1+1) (with remote contacts)		50.A121	50.A122	50.A123	50.A124	50.A125
Module PROTEC C(R) 40/xxx		50.A074	50.A075	50.A049	50.A076	50.A077
Module PROTUBE C 40/255		50.A050	50.A050	50.A050	50.A050	50.A050

ProTec C(R) 80 (1+1)

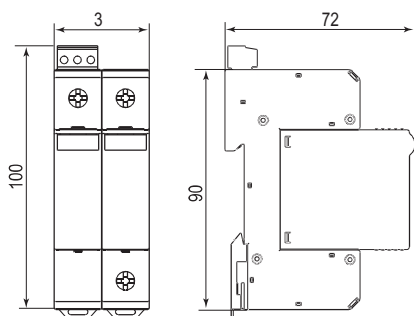
Internal Configuration

Legend

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



Dimensions & Packaging [mm]

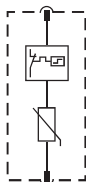


Dimensions & Packaging

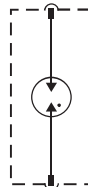
ProTec C 80/xxx (1+1)	150	275	320	385	440
Single Unit Weight	221 g	225 g	225 g	226 g	227 g
Single Unit DIN 43880 Dimension	2 TE				
Packaging Dimensions (H x W x L)	109 x 77 x 42 mm				
Minimum Order Quantity	7 Units				
ProTec CR 80/xxx (1+1)	150	275	320	385	440
Single Unit Weight	226 g	230 g	230 g	231 g	232 g
Single Unit DIN 43880 Dimension	2 TE				
Packaging Dimensions (H x W x L)	109 x 77 x 42 mm				
Minimum Order Quantity	7 Units				

Module Internal Configuration

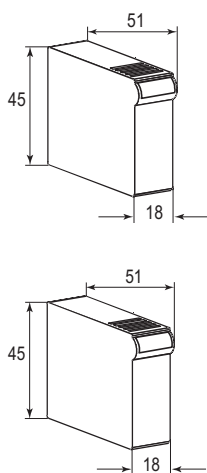
Module ProTec C(R) 40/xxx



Module ProTube C 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				

Dimensions & Packaging

Module ProTube C 40/xxx	255
Single Unit Weight	34 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.