

Modular Multi-pole SPD

ProTec C(R) 160 (3+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

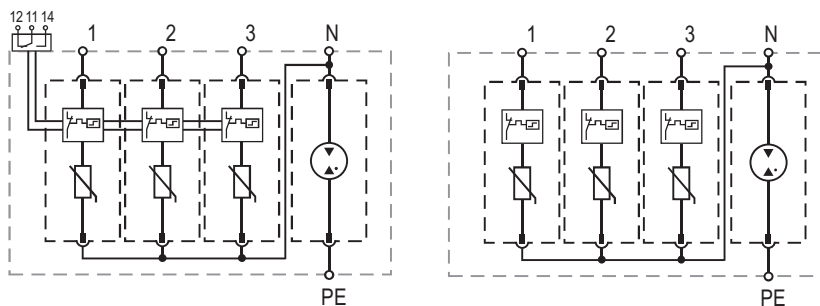
ProTec C(R) 160/xxx (3+1)		275	320	385	440
Electrical					
Nominal AC Voltage (50/60 Hz)	U_o	230V	230V	230V	230V
Maximum Continuous Operating Voltage (AC)	(L-N) U_c	275V	320V	385V	440V
	(N-PE) U_c			255V	
Nominal Discharge Current (8/20 μs)	(L-N)/(N-PE) I_n		20 kA/20 kA		
Maximum Discharge Current (8/20 μs)	(L-N)/(N-PE) I_{max}		40 kA/40 kA		
Voltage Protection Level	(L-N) U_p	< 1.5 kV	< 1.5 kV	< 1.9 kV	< 2.0 kV
	(N-PE) U_p			< 1.5 kV	
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	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)		
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		275	320	385	440
PROTEC C 160/xxx (3+1)		50.A127	50.A047	50.A128	50.A056
PROTEC CR 160/xxx (3+1) (with remote contacts)		50.A130	50.A048	50.A061	50.A057
Module PROTEC C(R) 40/xxx		50.A075	50.A049	50.A076	50.A077
Module PROTUBE C 40/255		50.A050	50.A050	50.A050	50.A050

ProTec C(R) 160 (3+1)

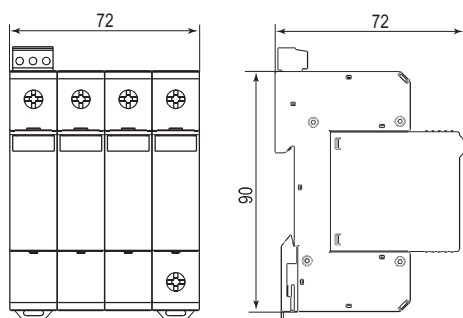
Internal Configuration

Legend

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



Dimensions & Packaging [mm]

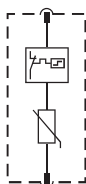


Dimensions & Packaging

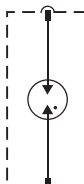
ProTec C 160/xxx (3+1)	275	320	385	440
Single Unit Weight	441 g	441 g	445 g	447 g
Single Unit DIN 43880 Dimension	4 TE			
Packaging Dimensions (H x W x L)	109 x 77 x 80 mm			
Minimum Order Quantity	3 Units			
ProTec CR 160/xxx (3+1)	275	385	385	440
Single Unit Weight	446 g	446 g	450 g	452 g
Single Unit 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

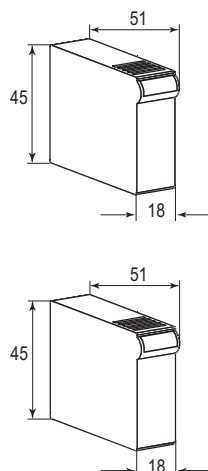
Module ProTec C(R) 40/xxx



Module ProTube C 40/xxx



Dimensions & Packaging [mm]



Dimensions & Packaging

Module ProTec C(R) 40/xxx	275	320	385	440
Single Unit Weight	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.