

Overvoltage Protection ProTec T2 1+1-US

Type 1CA • Open Type 1 SPD Listed • Class II • Type 2



Location of Use: Sub-Distribution Boards
 Network Systems: 1-Phase, 1-Split Phase, 3-Phase
 Mode of Protection: L-N, N-PE
 UL/IEC/EN Category: Open Type 1 SPD Listed / Type 1CA
 Class II / Type 2
 Compliance: UL 1449 5th Edition
 IEC 61643-11:2011
 EN 61643-11:2012+A11:2018

Technical Data

ProTec T2-xxx-1+1-US(-R)

		75	150	300	350
UL Electrical					
Nominal System Voltage (AC)		60V	120V	240V	277V
System		1	1	1	1
Maximum Continuous Operating Voltage (AC)	(L-N)/(N-G) MCOV	75 V / 305 V	150 V / 305 V	300 V / 305 V	350 V / 305 V
Voltage Protection Rating	(L-N)/(N-G) VPR	330 V / 1000 V	600 V / 1000 V	900 V / 1000 V	1000 V / 1000 V
Nominal Discharge Current (8/20 μs)	(L-N)/(N-G) I _n	20 kA / 20 kA			
Short-Circuit Current Rating (AC)	(L-N) SCCR	100 kA	200 kA	150 kA	200 kA

IEC Electrical

Nominal AC Voltage (50/60Hz)	U _o /U _n	60V	120V	240V	277V
Maximum Continuous Operating Voltage (AC)	(L-N)/(N-PE) U _c	75 V / 305 V	150 V / 305 V	300 V / 305 V	350 V / 305 V
Nominal Discharge Current (8/20 μs)	(L-N)/(N-PE) I _n	20 kA / 40 kA	20 kA / 40 kA	20 kA / 40 kA	20 kA / 40 kA
Maximum Discharge Current (8/20 μs)	(L-N)/(N-PE) I _{max}	50 kA / 65 kA	50 kA / 65 kA	50 kA / 65 kA	50 kA / 65 kA
Voltage Protection Level	(L-N)/(N-PE) U _p	800 V / 1500 V	1250 V / 1500 V	1500 V / 1500 V	1750 V / 1500 V
Follow Current Interrupt Rating	(N-PE) I _{fi}	100 A			
Response Time	(L-N)/(N-PE) t _A	< 25 ns / < 100 ns			
Overvoltage Category		III			
Overcurrent Protection (max)		315 A / 250 A gG			
Short-Circuit Current Rating (AC)	(L-N) I _{SCCR}	25 kA / 50 kA			
TOV Withstand 5s	(L-N) U _T	114 V	229 V	337 V	403 V
TOV 120min	(L-N) U _T	114 V	229 V	442 V	529 V
	mode	Withstand	Withstand	Safe Fail	Safe Fail
TOV Withstand 200ms	(N-PE) U _T	1200V			
Number of Ports		1			

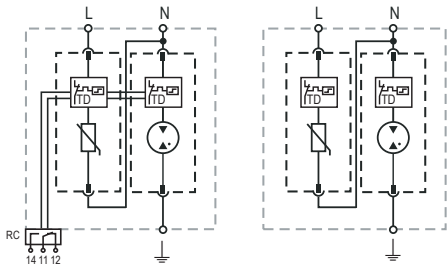
Mechanical & Environmental

Operating Temperature Range	T _a	-40 °F to +185 °F [-40 °C to +85 °C]			
Permissible Operating Humidity	RH	5%...95%			
Pollution Degree		2			
Altitude (max)		13123 ft [4000 m]			
Terminal Screw Torque	M _{max}	35 lbf-in per UL 1499 [4.5 Nm]			
Conductor Cross Section (max)		6 AWG (Solid, Stranded) per UL 1449			
		35 mm ² (Solid, Stranded) / 25 mm ² (Flexible)			
Mounting		35 mm DIN Rail, EN 60715			
Degree of Protection		IP 20 (built-in)			
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0			
Thermal Protection		Yes			
Operating State / Fault Indication		Green Flag / Not Green Flag			
Remote Contacts (RC)		Optional			
RC Switching Capacity		AC: 250V/1A, 125V/1A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A			
RC Conductor Cross Section (max)		10 AWG (Solid, Stranded) per UL 1449 [1.5 mm ² (Solid)]			
Overvoltage Category		III			

Internal Configuration

Legend

- L Line Conductor Terminal
- N Neutral Conductor Terminal
- ⏏ PE/G Conductor Terminal
- RC Remote Contacts Terminal (Optional)
- TD Thermal Disconnecter

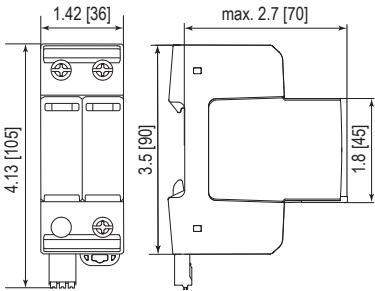


Order Information

Order Code	75	150	300	350
ProTec T2-xxx-1+1-US	59.B121	59.B123	59.B125	59.B127
ProTec T2-xxx-1+1-US-R (with remote contacts)	59.B122	59.B124	59.B126	59.B128
ProTec T2-xxx-P (plug L-N)	59.0063	59.0064	59.0065	59.0066
ProTube T2-40-P (plug N-PE)	59.0273	59.0273	59.0273	59.0273

Dimensions & Packaging

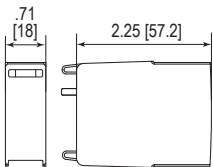
inches [mm]



Complete Unit

ProTec T2-xxx-1+1-US		75	150	300	350
Weight	pounds	.512	.527	.534	.545
	grams	232	239	242	247
ProTec T2-xxx-1+1-US-R					
Weight	pounds	.521	.536	.543	.554
	grams	236	243	246	251
DIN 43880 Dimension			2 TE / 1.42" [36]		
Packaging Dimensions (HxWxL)			4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]		
Standard Order Quantity			7 Units		

Spare Plug



Single Unit

ProTec T2-xxx-P		75	150	300	350
Weight	pounds	.108	.123	.130	.141
	grams	49	56	59	64
ProTube T2-40-P			40		
Weight	pounds [grams]		.093 [42]		
DIN 43880 Dimension			1 TE / .71" [18]		
Packaging Dimensions (HxWxL)			3.2 x 4.5 x 12" [83 x 116 x 305 mm]		
Standard Order Quantity			24 Units		