

Overvoltage Protection

ProTec T2 3+1

Class II • Type 2 • Type 1CA



Location of Use: Sub-distribution Boards
 Network Systems: TT, TN-S
 Mode of Protection: L-N, N-PE
 IEC/EN/UL Category: Class II / Type 2 / Type 1CA
 Housing: Pluggable Design
 Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018
 UL 1449 5th Edition



Technical Data

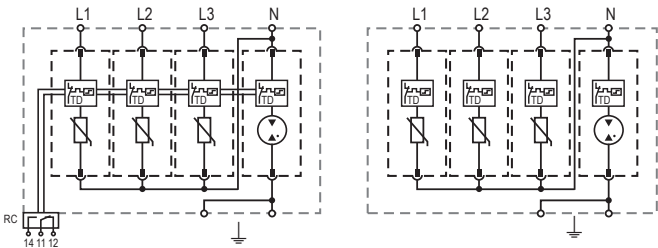
ProTec T2-xxx-3+1(-R)

ProTec T2-xxx-3+1(-R)			300	350
IEC Electrical				
Nominal AC Voltage (50/60Hz)		U _o /U _n	240 V	277 V
Maximum Continuous Operating Voltage (AC)	(L - N)/(N - PE)	U _c	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
Maximum Discharge Current (8/20 μs)	(L - N)/(N - PE)	I _{max}	50 kA / 65 kA	50 kA / 65 kA
Voltage Protection Level	(L - N)/(N - PE)	U _p	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	337 V	403 V
TOV 120min	(L - N)	U _T	442 V	529 V
		mode	Safe Fail	Safe Fail
TOV Withstand 200ms	(N - PE)	U _T	1200V	
Number of Ports	1			
UL Electrical				
Maximum Continuous Operating Voltage (AC)	(L - N)/(N - G)	MCOV	300 V / 305 V	350 V / 305 V
Voltage Protection Rating	(L - N)/(N - G)	VPR	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	150 kA	200 kA
Additional Electrical Parameters - Standard <i>(Tests performed within Raycap testing laboratory only)</i>				
Residual Voltage at 5 kA (8/20 μs)		U _{res}	1000V / 305 V	1300V / 305 V
Minimum Backup fuse, if required	80 A gG			
Additional Electrical Parameters - Extended <i>(Additionally tested by VDE)</i>				
Short-Circuit Current Rating (AC)		I _{SCCR}	100 kA	
Overcurrent Protection (max)	250 A gG			
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}	40 lbf-in [4.5 Nm]	
Conductor Cross Section (max)			2 AWG (Solid, Stranded) / 4 AWG (Flexible)	
			35 mm² (Solid, Stranded) / 25 mm² (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/1 A; DC: 48V/0.5 A, 24V/0.5 A, 12V/0.5 A			
RC Conductor Cross Section (max)	16 AWG (Solid) / 1.5 mm² (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 Disconnect

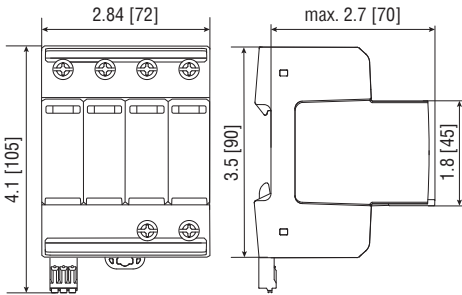


Order Information

Order Code	300	350
ProTec T2-xxx-3+1	59.0121	59.0123
ProTec T2-xxx-3+1-R (with remote contacts)	59.0122	59.0124
ProTec T2-xxx-P (plug L-N)	59.0065	59.0066
ProTube T2-40-P (plug N-PE)	59.0273	59.0273

Dimensions & Packaging

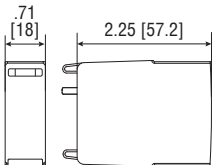
inches [mm]



Complete Unit

ProTec T2-xxx-3+1		300	350
Weight	pounds [grams]	1.020 [462]	1.053 [477]
ProTec T2-xxx-3+1-R			
Weight	pounds [grams]	1.031 [467]	1.064 [482]
DIN 43880 Dimension		4 TE / 2.84" [72 mm]	
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]	
Standard Order Quantity		4 Units	

Spare Plug



Single Unit

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