

Combined Lightning Current and Surge Arrester

ProTec 60 T1 3+1

Class I • Class II • Type 1 • Type 2



Location of Use: Main Distribution Boards,
60mm Busbar Systems

Network Systems: TT, TN-S

Mode of Protection: L-N, N-PE

IEC/EN: Class I+II / Type 1+2

Housing: Pluggable design

Compliance: IEC 61643-11:2011

EN 61643-11:2012 + A11:2018

Technical Data

ProTec 60 T1-xxx-3+1(-R)

300

IEC Electrical

Nominal AC Voltage (50/60Hz)	U_o / U_n	240 V
Maximum Continuous Operating Voltage (AC)	(L-N) U_c	300 V
	(N-PE) U_c	305 V
Nominal Discharge Current (8/20 μ s)	(L-N)/(N-PE) I_n	20 kA / 80 kA
Maximum Discharge Current (8/20 μ s)	(L-N)/(N-PE) I_{max}	50 kA / 100 kA
Impulse Discharge Current (10/350 μ s)	(L-N)/(N-PE) I_{imp}	12.5 kA / 50 kA
Specific Energy	(L-N)/(N-PE) W/R	39 kJ/ Ω / 625 kJ/ Ω
Charge	(L-N)/(N-PE) Q	6.25 As / 25As
Voltage Protection Level	(L-N)/(N-PE) U_p	1500V / 1500V
Follow Current Interrupt Rating	(N-PE) I_{fi}	100A
Response Time	(L-N)/(N-PE) t_A	< 25ns / < 100ns
Overcurrent Protection (max)		160 A gG
Short-Circuit Current Rating (AC)	I_{SCCR}	25 kA
TOV Withstand 5s	(L-N) U_T	337 V
TOV Safe Fail 120min	(L-N) U_T	442 V
TOV Withstand 200ms	(N-PE) U_T	1200 V
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%
Altitude (max)		13123 ft [4000m]
Terminal Screw Torque	M_{max}	PH2 / 40 lbf-in [4.5Nm]
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible)
		35 mm ² (Solid, Stranded) / 25 mm ² (Flexible)
Mounting		60mm Busbar Systems
		Width: 12, 15, 20, 25, 30mm
		Thickness: 5mm, 10mm (with removed spacers)
Degree Of Protection		IP 20*
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0
Operating State / Fault Indication		Green Flag / Not Green Flag
Remote Contacts (RC)		Optional
RC Switching Capacity		AC: 250V/1 A, 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 mm ² (Solid)

Order Information

Order Code	300
ProTec 60 T1-xxx-3+1	515 949
ProTec 60 T1-xxx-3+1-R (with remote contacts)	515 950
ProTec T1-xxx-P (plug)	59.C345

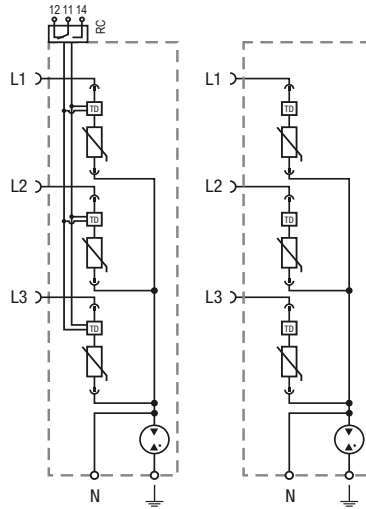
*IP 40 (in combination with cover)

ProTec 60 T1 3+1

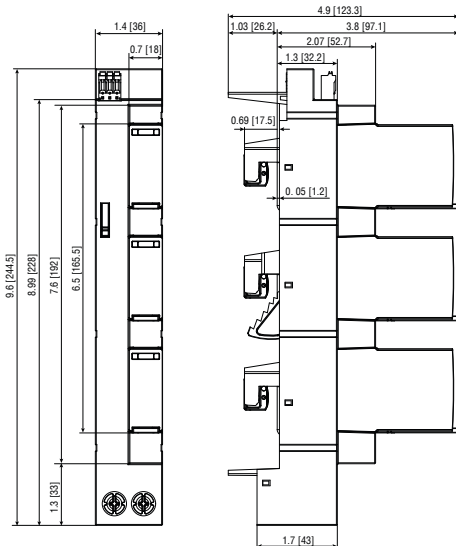
Internal Configuration

Legend

- L Line Busbar Terminal
- ⏚ PE Conductor Terminal
- N Neutral Conductor Terminal
- RC Remote Contacts Terminal (Optional)
- TD Thermal Disconnect



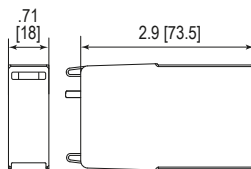
Complete Unit



Complete Unit Dimensions & Packaging

ProTec 60 T1-xxx-3+1		300
Weight	pounds [grams]	1.345 [610]
Packaging Dimensions (HxWxL)		270 × 375 × 395" [10.6 × 14.8 × 15.5]
ProTec 60 T1-xxx-3+1-R		300
Weight	pounds [grams]	1.360 [617]
Packaging Dimensions (HxWxL)		270 × 375 × 395" [10.6 × 14.8 × 15.5]
Standard Order Quantity		20 Units

Spare Unit



Single Unit

ProTec T1-xxx-P		300
Weight	pounds [grams]	.229 [104]
DIN 43880 Dimension		1 TE / .71 [18]
Packaging Dimensions (HxWxL)		4.3 × 4.5 × 13.8" [109 × 115 × 352 mm]
Standard Order Quantity		28 Units

inches
[mm]

Information contained in this document is subject to change at any time without notice.

