

Combined Lightning Current and Surge Arrester



ProTec 60 T1H, T1, T2 and T2F Series

Special features:

- For TN-C, TT and TN-S network systems
- Plugs available with Type 1 or Type 2 surge protection; and Type 2 with integrated fuse
- Better overall voltage protection levels due to less wiring
- Visual status monitoring of SPD and fuse (T2F) available via remote signalization
- Can be used with a variety of busbar widths and thickness
- Reduces installation cost and space requirements
- Shorter wiring time and minimized complexity
- Pluggable concept enables fast & simplified installation
- Shorter connecting cables improve voltage protection level across installation points



IEC 61643-11:2011

EN 61643-11:2012 +A11:2018



The Raycap ProTec 60mm Busbar series reduces installation time and space requirements, and enables fast and simplified installation. Shorter connecting cables improve the overall voltage protection level, providing optimal electrical protection to the installation.



More Product Information





Location of Use: Main Distribution Boards,
60 mm 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 / 25 As
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)		250 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 [4000 m]
Terminal Screw Torque	M_{max}	PH2 / 40 lbf-in [4.5 Nm]
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible)
Mounting		60 mm Busbar Systems Width: 12, 15, 20, 25, 30 mm Thickness: 5 mm, 10 mm (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

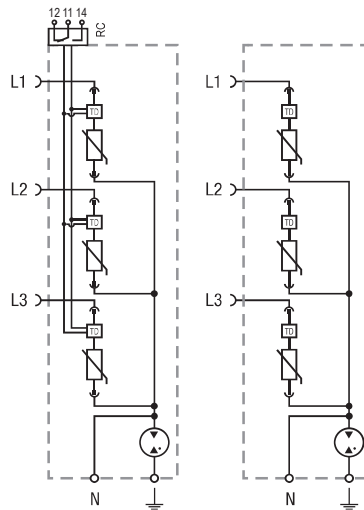
*IP 40 (in combination with cover)

ProTec 60 T1 3+1

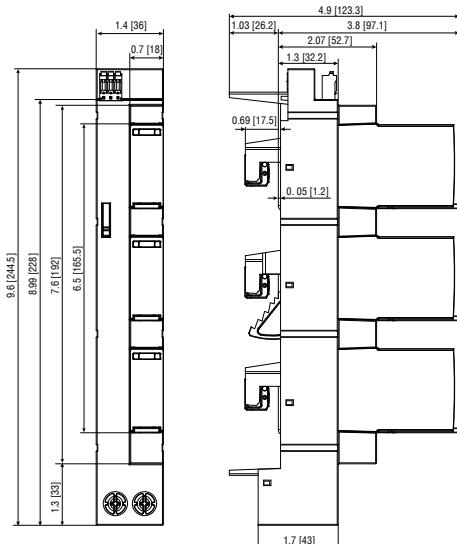
Internal Configuration

Legend

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



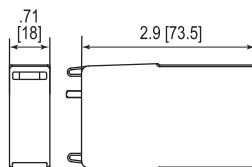
Complete Unit



Complete Unit Dimensions & Packaging

ProTec 60 T1-xxx-3+1		300
Weight	pounds [grams]	1.345 [610]
Packaging Dimensions (HxWxL)		270 x 375 x 395" [10.6 x 14.8 x 15.5]
ProTec 60 T1-xxx-3+1-R		300
Weight	pounds [grams]	1.360 [617]
Packaging Dimensions (HxWxL)		270 x 375 x 395" [10.6 x 14.8 x 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 x 4.5 x 13.8" [109 x 115 x 352 mm]
Standard Order Quantity		28 Units

inches
[mm]

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

