

DATASHEET

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,
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)/(N-PE) U_c	300 V/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	1500 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 gG
Short-Circuit Current Rating (AC)	I_{SCCR}	25 kA
TOV Withstand 5s	(L-N) U_T	337 V
TOV SafeFail 120min	(L-N) U_T	442 V
TOV Withstand 200ms	(N-PE) U_T	1200 V
Number of Ports		1

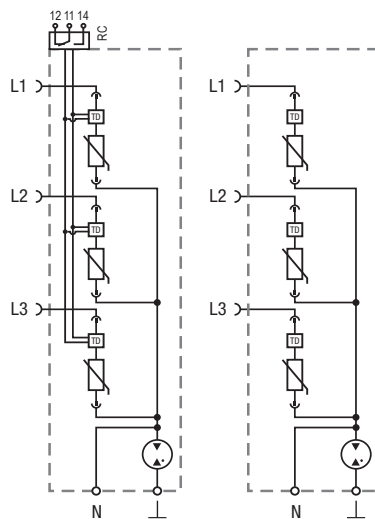
Mechanical & Environmental

Operating Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]
Permissible Operating Humidity	RH	5%...95%
Pollution Degree		2
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: 250 V/1 A, 125 V/1 A; DC: 48 V/0.5 A, 24 V/0.5 A, 12 V/0.5 A
RC Conductor Cross Section (max)		16 AWG (Solid) / 1.5 mm ² (Solid)
Overvoltage Category		III

*IP 40 (in combination with cover)

Legend

<i>L</i>	Line Busbar Terminal
	PE Conductor Terminal
<i>N</i>	Neutral Conductor Terminal
<i>RC</i>	Remote Contacts Terminal (Optional)
<i>TD</i>	Thermal Disconnect

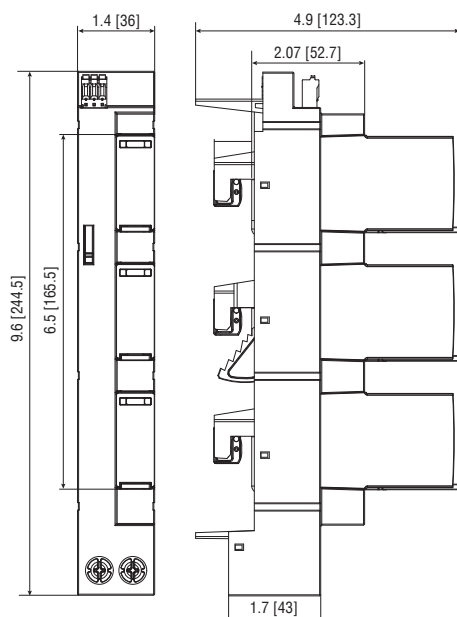


Order Information

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

Dimensions & Packaging

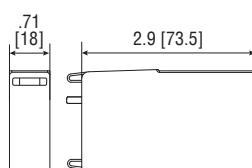
inches [mm]



Complete Unit

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

Spare Plug



Single Unit

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