



Location of Use: Main Distribution Boards
 Network Systems: TN-S, TN-C, TT (only L-N),
 IT (only 440)

Mode of Protection: L-PE, N-PE (only TN-S and IT), L-PEN, L-N
 IEC/EN Category: Class I+II / Type 1+2

Housing: Pluggable Design

Compliance: IEC 61643-11:2011
 EN 61643-11:2012+A11:2018



RoHS
COMPLIANT

Technical Data

ProTec T1S-xxx-1+0(-R)

		275	440*
IEC Electrical			
Nominal AC Voltage (50/60Hz)	U_o / U_n	240 V	400 V
Maximum Continuous Operating Voltage (AC)	U_c	275 V	440 V
Nominal Discharge Current (8/20 μ s)	I_n	25 kA	25 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	65 kA	50 kA
Impulse Discharge Current (10/350 μ s)	I_{imp}	25 kA	25 kA
Specific Energy	W/R	156.2 kJ/ Ω	156.2 kJ/ Ω
Charge	Q	12.5 As	12.5 As
Voltage Protection Level	U_p	1500 V	2500 V
Response Time	t_A	< 100 ns	< 100 ns
Overvoltage Category		III	III
Overcurrent Protection (max)		315 A gG	315 A gG / 250 A gG
Short-Circuit Current Rating (AC)	I_{SCCR}	50 kA	50 kA / 100 kA
Follow Current Interrupt Rating (AC)	I_{fi}	50 kA	50 kA / 100 kA
TOV 120min	U_T / mode	442 V / Withstand	762 V / Safe Fail
TOV Safe Fail 200ms	U_T	-	1640 V
Number of Ports		1	

Additional Electrical Parameters - Standard (Tests performed within Raycap testing laboratory only)

Residual Voltage at 5 kA (8/20 μ s)	U_{res}	1400 V	1500 V
Minimum Backup fuse, if required		250 A gG	250 A gG

Additional Electrical Parameters - Extended (Additionally tested by VDE)

Short-Circuit Current Rating (AC)	I_{SCCR}	100 kA
Minimum Overcurrent Protection, if required		315 A gG 250 A gG

Mechanical & Environmental

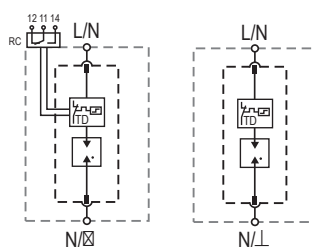
Operating Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]
Permissible Operating Humidity	RH	5%...95%
Pollution Degree		2
Altitude		6562 ft [2000m]
Terminal Screw Torque	M_{max}	40 lbf-in [4.5 Nm]
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm ² (Solid, Stranded) / 25 mm ² (Flexible)
Mounting		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: 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

*No VDE Certification.

Internal Configuration

Legend

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



ProTec T1S-xxx-1+0(-R)

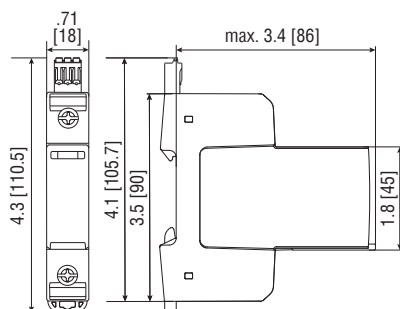
Order Information

Order Code	275	440*
ProTec T1S-xxx-1+0	59.0738	59.A517
ProTec T1S-xxx-1+0-R (with remote contacts)	59.0739	59.A518
ProTec T1S-xxx-P (plug)	59.0384	59.A515

*No VDE Certification.

Dimensions & Packaging

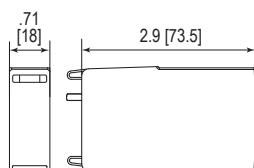
inches [mm]



Complete Unit

ProTec T1S-xxx-1+0		275	440*
Weight	pounds [grams]	.381 [173]	.392 [178]
ProTec T1S-xxx-1+0-R			
Weight	pounds [grams]	.396 [180]	.407 [185]
DIN 43880 Dimension		1 TE / .71" [18 mm]	
Packaging Dimensions (HxWxL)		4.3 × 4.5 × 13.8" [109 × 115 × 352 mm]	
Standard Order Quantity		12 Units	

Spare Plug



Single Unit

ProTec T1S-xxx-P		275	440*
Weight	pounds [grams]	.231 [105]	.242 [110]
DIN 43880 Dimension		1 TE / .71" [18 mm]	
Packaging Dimensions (HxWxL)		4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]	
Standard Order Quantity		28 Units	