



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

**Technical Data**

**ProTec T1S-35-xxx-1+0(-R)**

**275**

**440**

**IEC Electrical**

		275	440
Nominal AC Voltage (50/60Hz)	$U_o/U_n$	240V	400V
Maximum Continuous Operating Voltage (AC)	$U_c$	275V	440V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	35 kA	35 kA
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$	50 kA	50 kA
Impulse Discharge Current (10/350 $\mu$ s)	$I_{imp}$	35 kA	35 kA
Specific Energy	W/R	306.25 kJ/ $\Omega$	306.25 kJ/ $\Omega$
Charge	Q	17.5 As	17.5 As
Voltage Protection Level	$U_p$	1500V	2500V
Rated Load Current	$I_L$	100 A	100 A
Response Time	$t_A$	< 100ns	< 100ns
Overcurrent Protection (max)		500 A gG	400 A gG
Short-Circuit Current Rating (AC)	$I_{SCCR}$	100 kA	100 kA
Follow Current Interrupt Rating	$I_{fi}$	100 kA	100 kA
TOV Withstand 120min	$U_T$	442V	762V
TOV Safe Fail 200ms	$U_T$	-	1640V
Number of Ports		1	1

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

Residual Voltage at 5 kA (8/20 $\mu$ s)	$U_{res}$	1000V	1500V
Overcurrent Protection (min)		400 A gG	400 A gG

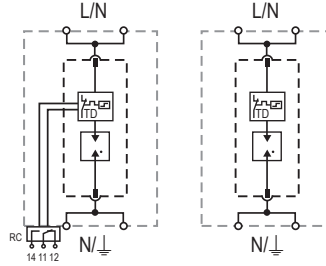
**Mechanical & Environmental**

Operating Temperature Range	$T_a$	-40 °F to +185 °F [-40 °C to +85 °C]	
Permissible Operating Humidity	RH	5%...95%	
Altitude		13123 ft [4000 m]	
Terminal Screw Torque	$M_{max}$	39.9 lbf-in [4.5Nm]	
Conductor Cross Section (max)		2 AWG (Solid, Stranded) / 4 AWG (Flexible) 35 mm <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (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/1A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A	
RC Conductor Cross Section (max)		16 AWG (Solid) / 1.5mm <sup>2</sup> (Solid)	

## Internal Configuration

### Legend

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



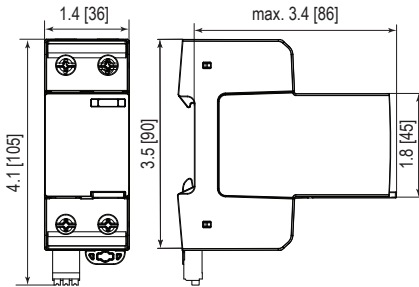
### ProTec T1S-35-xxx-1+0(-R)

#### Order Information

Order Code	275	440
ProTec T1S-35-xxx-1+0	59.A530	59.A536
ProTec T1S-35-xxx-1+0-R (with remote contacts)	59.A531	59.A537
ProTec T1S-35-xxx-P (plug)	59.A532	59.A538

## Dimensions & Packaging

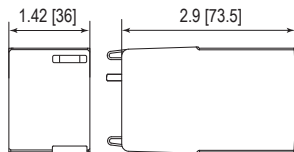
inches [mm]



#### Complete Unit Dimensions & Packaging

ProTec T1S-35-xxx-1+0	275	440	
Weight	pounds [grams]	.623 [283]	.656 [298]
ProTec T1S-35-xxx-1+0-R	275	440	
Weight	pounds [grams]	.643 [292]	.676 [307]
Single Unit DIN 43880 Dimension	2 TE / 1.42 [36]		
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]		
Standard Order Quantity	7 Units		

## Spare Plug



#### Single Unit Dimensions & Packaging

ProTec T1S-35-xxx-P	275	440	
Weight	pounds [grams]	.412 [187]	.445 [202]
Single Unit DIN 43880 Dimension	2 TE / 1.42 [36]		
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]		
Standard Order Quantity	16 Units		