

**ProTube T1 0+1****Class I • Class II • Type 1 • Type 2 • Type 1CA • Open Type 1 SPD Listed**

Location of Use: Main Distribution Boards  
 Network Systems: TT, TN-S  
 Mode of Protection: N-PE  
 IEC/EN/UL Category: Class I+II / Type 1+2 / Type 1CA,  
 Open Type 1 SPD Listed  
 Housing: Pluggable Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012 +A11:2018  
 UL 1449 5th Edition

**Technical Data****ProTube T1-xxx-0+1 & ProTube T1-xxx-0+1-US****50****100****IEC Electrical**

Maximum Continuous Operating Voltage	$U_c$	305 V	305 V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	50 kA	100 kA
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$	100 kA	150 kA
Impulse Discharge Current (10/350 $\mu$ s)	$I_{imp}$	50 kA	100 kA
Specific Energy	W/R	625 kJ/ $\Omega$	2500 kJ/ $\Omega$
Charge	Q	25 As	50 As
Voltage Protection Level	$U_p$	1500 V	1500 V
Follow Current Interrupt Rating (AC)	$I_{fi}$	100 A	100 A
Response Time	$t_A$	< 100 ns	< 100 ns
TOV Withstand 200ms	$U_T$	1200 V	1200 V
Number of Ports		1	1

**UL Electrical**

Maximum Continuous Operating Voltage (AC)	MCOV	305 V	305 V
Voltage Protection Rating	VPR	1200 V	1200 V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	20 kA	20 kA

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

Residual Voltage at 5 kA (8/20 $\mu$ s)	$U_{res}$	305 V	305 V
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**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	$M_{max}$	35 lbf-in per UL 1499 [4.5 Nm]	
Conductor Cross Section (max)		6 AWG (Solid, Stranded) per UL 1449	
		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	

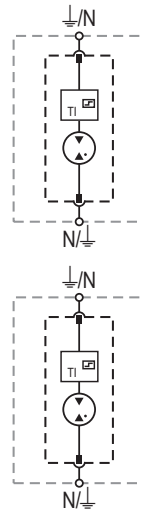
## Internal Configuration

### Legend

<i>N</i>	Neutral Conductor Terminal
	PE/G Conductor Terminal
<i>T1</i>	Thermal Indication

UL Listed Products

UL Recognized Products



### ProTube T1-xxx-0+1(-R)

#### Order Information VDE Certified and UL Recognized Products

Order Code	50	100
ProTube T1-xxx-0+1	59.0276	59.0278
ProTube T1-50-P (plug)	59.0269	-
ProTube T1-100-P (plug)	-	59.0271

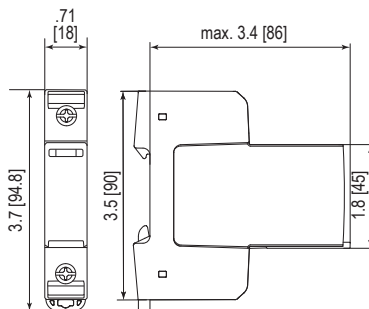
### ProTube T1-xxx-0+1-US(-R)

#### Order Information VDE Certified and Open Type 1 UL Listed Products

Order Code	50	100
ProTube T1-xxx-0+1-US	59.B231	59.B232
ProTube T1-50-P (plug)	59.0269	-
ProTube T1-100-P (plug)	-	59.0271

## Dimensions & Packaging

inches [mm]



#### Complete Unit UL Recognized Products

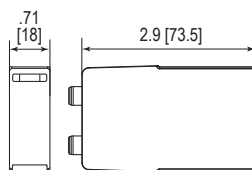
ProTube T1-xxx-0+1	50	100
Weight	pounds .395	.434
	grams 179	197

#### Complete Unit UL Listed Products

ProTube T1-xxx-0+1-US	50	100
Weight	pounds .395	.434
	grams 179	197

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	12 Units

## Spare Plug



#### Single Unit

ProTube T1-xxx-P	50	100
Weight	pounds .214	.251
	grams 97	114

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