

Pluggable Multi-Pole SPD for DC Systems  
**ProTec T2 DCU 3Y (Unipolar)**  
 Type 2 • DC SPD Type 1



Location of Use: DC Systems, EV Chargers  
 Network Systems: Unipolar grounded / ungrounded, TN, TT\*, IT\*  
 Mode of Protection: (+) - PE / G, (-) - PE / G, (+) - (-)  
 IEC/UL Category: Type 2, DC SPD Type 1  
 Housing: Pluggable Design  
 Compliance: IEC CD 61643-41 Edition 1  
 UL 1449 5th Edition

**Technical Data**

**ProTec T2-xxxxDCU-3Y(-R)**

		<b>500</b>	<b>1000</b>	<b>1500</b>
<b>IEC Electrical</b>				
Nominal DC Voltage	$U_n$	500V	1000V	1500V
Maximum Continuous Operating Voltage (DC)	(+) - (-) $U_{CDC}$	500V	1000V	1500V
	(+) / (-) - PE $U_{CDC}$	500V	1000V	1500V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	20kA	20kA	20kA
Maximum Discharge Current	$I_{max}$	40kA	40kA	40kA
Total Discharge Current (8/20 $\mu$ s)	$I_{Total}$	70kA	70kA	55kA
Impulse Discharge Current (10/350 $\mu$ s)	$I_{imp}$	5kA	5kA	2.8kA
Total Discharge Current (10/350 $\mu$ s)	$I_{Total}$	10kA	10kA	3kA
Voltage Protection Level	(+) - (-) $U_p$	2400V	3150V	3700V
	(+) / (-) - PE $U_p$	2400V	3150V	3700V
Overcurrent Protection (max)		200 A gBat**	200 A gBat***	200 A gBat***
Short-Circuit Current Rating (DC)	$I_{SCCR}$		30 kA (L/R < 3 ms)	
Response Time			< 25 ns	
Overvoltage Category			III	
Number of Ports			1	

**UL Electrical**

Maximum Permitted DC Voltage	(+) - (-) $V_{dcmcov}$	500V	1000V	1500V
	(+) / (-) - G $V_{dcmcov}$	500V	1000V	1500V
Voltage Protection Rating	VPR	1800V	2500V	3000V
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$		20kA	
Short-Circuit Current Rating (DC)	SCCR		100kA	




**Mechanical & Environmental**

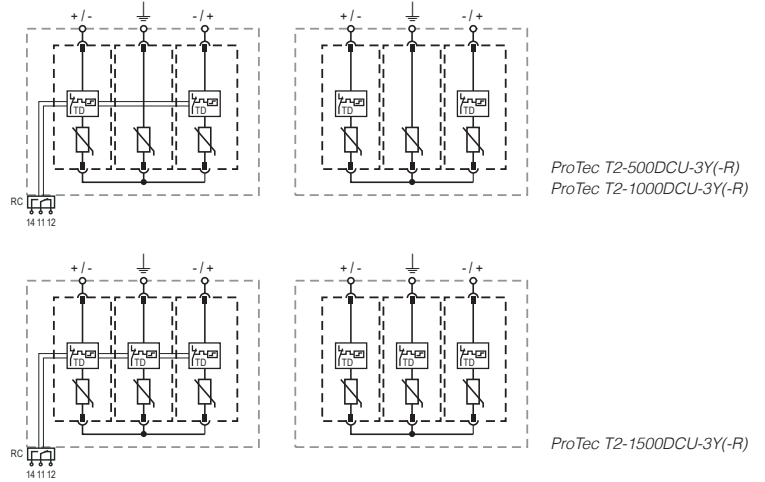
Operating Temperature Range	$T_a$	-40 °F to +185 °F [-40 °C to +85 °C]		
Permissible Operating Humidity	RH	5%...95%		
Altitude (max)		6562 ft [2000 m]		
Terminal Screw Torque	$M_{max}$	35 lbf-in per UL 1449 [4.5 Nm]		
Conductor Cross Section (max)		6 AWG (Solid, Stranded) per UL 1449		
		35 mm <sup>2</sup> (Solid, Stranded) / 25 mm <sup>2</sup> (Flexible)		
		Cu Only per UL 1449		
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		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 <sup>2</sup> (Solid)		

\*Only for DC power systems which are electrically separated from AC power systems.  
 \*\*ETI NH1 BAT 200A/500V DC (004723266), \*\*\*ETI NH1 BAT 200A/1500V DC (004110656)

## Internal Configuration

### Legend

-  PE / G Conductor Terminal
-  RC Remote Contacts Terminal (Optional)
-  TD Thermal Disconnect

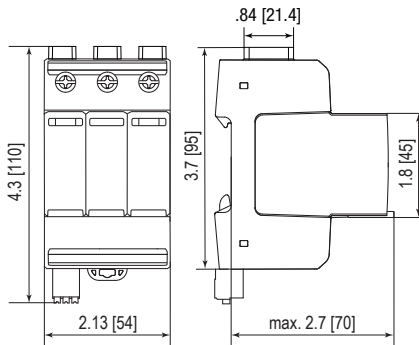


## Order Information

Order Code	500	1000	1500
ProTec T2-xxxxDCU-3Y	59.A983	59.A985	59.A987
ProTec T2-xxxxDCU-3Y-R (with remote contacts)	59.A984	59.A986	59.A988
ProTec T2-250DCU-M-P (side plug)	59.A989	-	-
ProTec T2-250DCU-P (middle plug)	59.A990	-	-
ProTec T2-500DCU-M-P (side plug)	-	59.A991	-
ProTec T2-500DCU-P (middle plug)	-	59.A992	-
ProTec T2-750DCU-M-P (plug)	-	-	59.A993

## Dimensions & Packaging

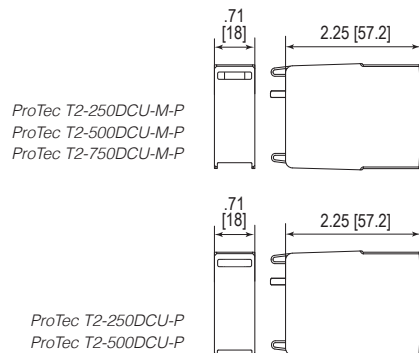
inches [mm]



### Complete Unit Dimensions & Packaging

ProTec T2-xxxxDCU-3Y	500	1000	1500
Weight			
	pounds	.772	.831
	grams	350	377
<b>ProTec T2-xxxxDCU-3Y-R</b>			
Weight			
	pounds	.789	.849
	grams	358	385
DIN 43880 Dimension	3 TE / 2.13" [54mm]		
Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]		
Standard Order Quantity	5 Units		

## Spare Plug



### Single Unit Dimensions & Packaging

ProTec T2-xxxDCU-M-P	250	500	750
Weight			
	pounds	.141	.161
	grams	64	73
<b>ProTec T2-xxxDCU-P</b>			
Weight			
	pounds	.134	.157
	grams	61	71
DIN 43880 Dimension	1 TE / .70" [18 mm]		
Packaging Dimensions (HxWxL)	3.2 x 4.5 x 12" [83 x 116 x 305 mm]		
Standard Order Quantity	24 Units		

