

Pluggable Multi-Pole SPD for EV Chargers

ProTec T2 DCGU 3Y

Class II • DC SPD Type 4CA



Location of Use: EV Chargers
 Network Systems: Unipolar grounded / ungrounded, TN, TT*, IT*
 Mode of Protection: (+) - PE / G, (-) - PE / G, (+) - (-)
 IEC/UL Category: Class II, DC SPD Type 4CA
 Housing: Pluggable Design
 Compliance: IEC 61643-41:2025
 UL 1449 5th Edition, Supplement SB



Technical Data

ProTec T2-xxxxDCGU-3Y(-R)

		1000	1500
IEC Electrical			
Nominal DC System Voltage	(+) - (-) U_n	900 V	1250 V
Maximum Continuous Operating Voltage (DC)	(+) - (-) U_c	1000 V	1500 V
	(+) / (-) - PE U_c	1000 V	1000 V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA	20 kA
Maximum Discharge Current	I_{max}	40 kA	40 kA
Total Discharge Current (8/20 μ s)	I_{Total}	65 kA	65 kA
Voltage Protection Level	(+) - (-) U_p	3900 V	4100 V
	(+) / (-) - PE U_p	2400 V	2500 V
Response Time	(+) - (-) t_A	< 25 ns	< 25 ns
	(+) / (-) - PE t_A	< 100 ns	< 100 ns
Overvoltage Category		III	III
Overcurrent Protection (max)		200 A gBat**	200 A gBat**
Short-Circuit Current Rating (DC)	I_{SCCR}	50 kA (L/R < 3 ms)	100 kA (L/R < 3 ms)
Number of Ports		1	1
UL Electrical			
Maximum Permitted DC Voltage	(+) - (-) V_{dcmcov}	1000 V	1500 V
	(+) / (-) - G V_{dcmcov}	1000 V	1000 V
Measured Limiting Voltage	(+) - (-) MLV	3700 V	3900 V
	(+) / (-) - G MLV	4300 V	4300 V
Nominal Discharge Current (8/20 μ s)	I_n	20 kA	20 kA
Additional Electrical Parameters (Tests performed within Raycap testing laboratory only)			
Rated DC withstand voltage***	U_{WDC}	1200 V	1250 V
Impulse Discharge Current (10/350 μ s)	I_{imp}	2.5 kA	2.5 kA
Total Discharge Current (10/350 μ s)	I_{Total}	-	5 kA
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)		6562 ft [2000 m]	9842 ft [3000 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 ² (Solid, Stranded) / 25 mm ² (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		AC: 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	

*Only for DC power systems which are electrically separated from AC power systems.

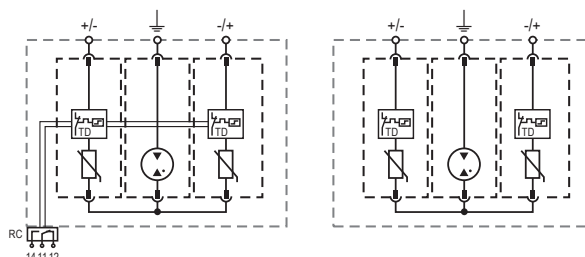
**ETI NH1 BAT 200A/1500V DC (004110656)

***In accordance with IEC 61851-23:2023 and prEN IEC CDV 61851-23-3:2024

Internal Configuration

Legend

	PE / G Conductor Terminal
	Remote Contacts Terminal (Optional)
	Thermal Disconnecter

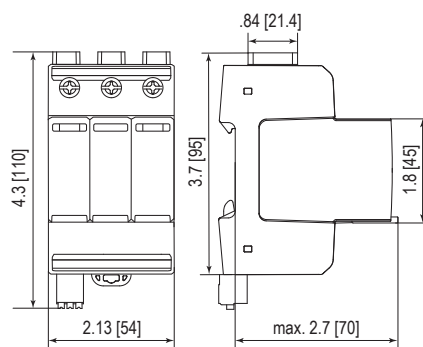


Order Information

Order Code	1000	1500
ProTec T2-xxxxDCGU-3Y	59.C380	59.D040
ProTec T2-xxxxDCGU-3Y-R (with remote contacts)	59.C381	59.D041
ProTec T2-500DCGU-M-P (side plug)	59.C383	-
ProTec T2-750DCGU-M-P (side plug)	-	59.D043
ProTube T2-500DCGU-P (middle plug)	59.C382	59.C382

Dimensions & Packaging

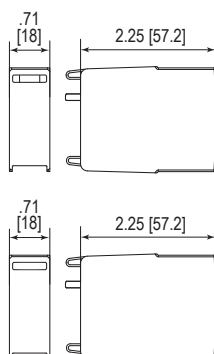
inches [mm]



Complete Unit

ProTec T2-xxxxDCGU-3Y	1000	1500
Weight	pounds .758	.758
	grams 344	344
ProTec T2-xxxxDCGU-3Y-R		
Weight	pounds .778	.778
	grams 353	353
DIN 43880 Dimension	3 TE / 2.13" [54 mm]	
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

ProTec T2-xxxDCGU-M-P	500	750
Weight	pounds .148	.148
	grams 67	67
ProTube T2-xxxDCGU-P	500	
Weight	pounds .088	
	grams 40	
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	