

## Compact Multi-Pole SPD with leads for use in EV (AC) Chargers

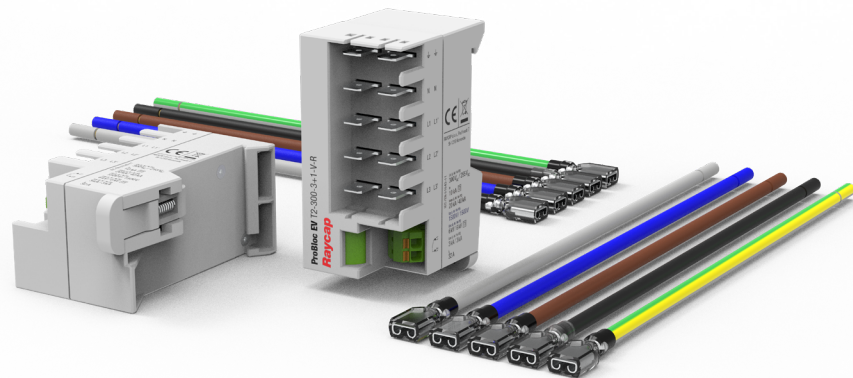
Lightning and Overvoltage Protection for AC Chargers

### ProBloc EV T2 V



#### Special features:

- Enables V connectivity for in-line installation
- Compact design with 35 mm width – suitable for even the smallest AC EV chargers
- Type 2 + 3 SPD
- Discharge capacity up to 20kA (L-N) and 40kA (N-PE)
- Short circuit current rating 10kA
- Mounts via DIN rail installation (only 2TE width needed) or mounts flush on the backplate
- Features FastOn connection terminals. Insulated connection leads can (optional) be supplied with the SPD



IEC 61643-11:2011

EN 61643-11:2012+A11:2018



With the increasing number of electrical vehicles on the road, charging stations are becoming more prevalent. While technologies have been focused on new vehicle designs and battery capacities, protection of people and the charging infrastructure also must be considered. The safety of those using the infrastructure is covered under IEC 60364-7-722:2018 (DIN VDE 0100-722:2019) which requires the use of overvoltage protection in all publicly accessible charging stations. As well, safety-conscious businesses and homeowners will also want to protect themselves and their investments with purpose-built surge protection. The ProBloc EV T2 V surge protectors are uniquely designed for use in AC charging systems. Raycap also offers DC surge protectors for use in DC Fast Charging infrastructure.



More Product Information



**Compact Multi-Pole SPD for EV Systems**  
**ProBloc EV T2 1+1 (01) V**  
**Class II • Class III • Type 2 • Type 3**



Location of Use: EV Chargers  
 Mode of Protection: L-N, N-PE  
 IEC/EN Category: Class II+III / Type 2+3  
 Housing: Compact Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012+A11:2018

**Technical Data**

**ProBloc EV T2-xxx-1+1-V(-01-R)**

**300**

**IEC Electrical**

Nominal AC Voltage (50/60 Hz)		$U_0$	240V
Maximum Continuous Operating Voltage (AC)	(L-N/N-PE)	$U_c$	300V/255V
Nominal Discharge Current (8/20 $\mu$ s)	(L-N/N-PE)	$I_n$	10 kA/10 kA
Maximum Discharge Current (8/20 $\mu$ s)	(L-N/N-PE)	$I_{max}$	20 kA/40 kA
Voltage Protection Level	(L-N/N-PE)	$U_p$	1500V/1500V
Rated Load Current		$I_L$	32A
Open Circuit Voltage of Combination Wave Generator (1.2/50 $\mu$ s)(L-N/N-PE)		$U_{oc}$	6 kV/6 kV
Short Circuit Current of Combination Wave Generator	(L-N/N-PE)	$I_{cw}$	3 kA/3 kA
Follow Current Interrupt Rating	(N-PE)		100 A
Response time	(L-N/N-PE)	$t_A$	<25 ns / <100 ns
Overcurrent Protection (max)			63 A gG
Short-Circuit Current Rating		$I_{SCCR}$	10 kA
TOV Withstand 5 s	(L-N)	$U_T$	337V
TOV Safe Fail 120 min	(L-N)	$U_T$	442V
TOV 200 ms	(N-PE)	$U_T$	1200V/300 A
Number of ports			1

**Mechanical & Environmental**

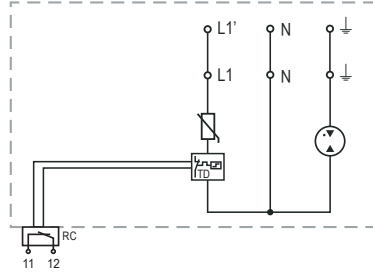
Temperature Range	$T_a$	-40 °F to +185 °F [-40 °C to +85 °C]
Permissible Humidity	RH	5%...95%
Altitude (max)		13123 ft [4000 m]
Conductor Cross Section		10 AWG / 6 mm <sup>2</sup> (Flexible)
Mounting		35 mm DIN Rail, EN 60715 / Baseplate Screw-in Mounting
Degree of Protection		IP 20 (built-in)
Thermal Protection		Yes
Fault Indication		Red 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
- ⏏ PE Conductor Terminal
- RC Remote Contacts Terminal (Optional)
- TD Thermal Disconnect



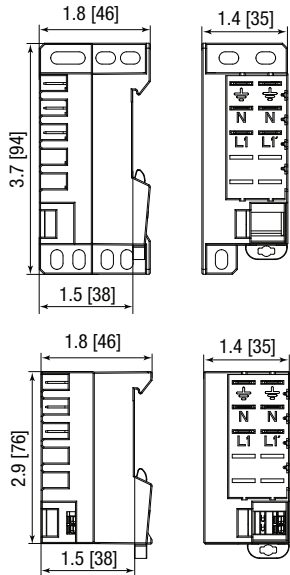
### ProBloc EV T2-xxx-1+1-V(-01-R)

#### Order Information

Order Code	300
ProBloc EV T2-xxx-1+1-V	515 756
ProBloc EV T2-xxx-1+1-V-R (with remote contacts)	515 757
ProBloc EV T2-xxx-1+1-V-01 (with flush mount)	515 758
ProBloc EV T2-xxx-1+1-V-01-R (with flush mount and remote contacts)	515 759

## Dimensions & Packaging

inches [mm]



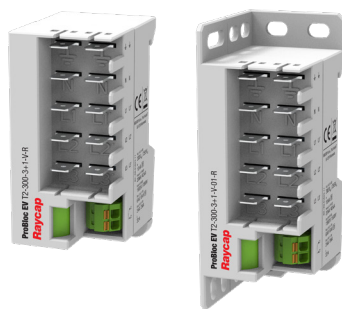
#### Single Unit

<b>ProBloc EV T2-xxx-1+1-V</b>	<b>300</b>
Weight	pounds [grams] .175 [79.2]
<b>ProBloc EV T2-xxx-1+1-V-R</b>	<b>300</b>
Weight	pounds [grams] .180 [81.7]
<b>ProBloc EV T2-xxx-1+1-V-01</b>	<b>300</b>
Weight	pounds [grams] .184 [83.6]
<b>ProBloc EV T2-xxx-1+1-V-01-R</b>	<b>300</b>
Weight	pounds [grams] .188 [85.1]
Packaging Dimensions (HxWxL)	1.8 x 2.1 x 3.9" [46 x 54 x 100 mm]
Standard Order Quantity	12 Units

# Compact Multi-Pole SPD for EV Systems

## ProBloc EV T2 3+1 (01) V

Class II • Class III • Type 2 • Type 3



Location of Use: EV Chargers  
 Mode of Protection: L-N, N-PE  
 IEC/EN Category: Class II+II / Type 2+3  
 Housing: Compact Design  
 Compliance: IEC 61643-11:2011  
 EN 61643-11:2012+A11:2018

### Technical Data

ProBloc EV T2-xxx-3+1-V(-01-R)

300

#### IEC Electrical

Nominal AC Voltage (50/60 Hz)		$U_0$	240V
Maximum Continuous Operating Voltage (AC)	(L-N/N-PE)	$U_c$	300V/255V
Nominal Discharge Current (8/20 $\mu$ s)		$I_n$	10kA
Maximum Discharge Current (8/20 $\mu$ s)	(L-N/N-PE)	$I_{max}$	20kA/40kA
Voltage Protection Level	(L-N/N-PE)	$U_p$	1500V/1500V
Rated Load Current		$I_L$	32A
Open Circuit Voltage of Combination Wave Generator (1.2/50 $\mu$ s)(L-N/N-PE)		$U_{oc}$	6kV/6kV
Short Circuit Current of Combination Wave Generator	(L-N/N-PE)	$I_{cw}$	3kA/3kA
Follow Current Interrupt Rating	(N-PE)		100A
Response time	(L-N/N-PE)	$t_A$	<25ns / <100ns
Overcurrent Protection (max)			63A gG
Short-Circuit Current Rating		$I_{SCCR}$	10kA
TOV Withstand 5s	(L-N)	$U_T$	337V
TOV Safe Fail 120min	(L-N)	$U_T$	442V
TOV 200ms	(N-PE)	$U_T$	1200V/300A
Number of ports			1

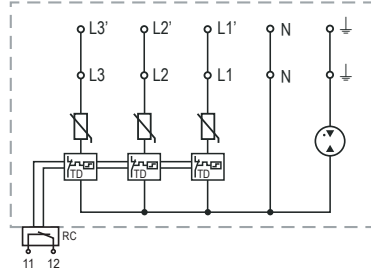
#### Mechanical & Environmental

Temperature Range		$T_a$	-40 °F to +185 °F [-40 °C to +85 °C]
Permissible Humidity		RH	5%...95%
Altitude (max)			13123 ft [4000 m]
Conductor Cross Section			10 AWG / 6 mm <sup>2</sup> (Flexible)
Mounting			35 mm DIN Rail, EN 60715 / Baseplate Screw-in Mounting
Degree of Protection			IP 20 (built-in)
Thermal Protection			Yes
Fault Indication			Red 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
- ⏏ PE Conductor Terminal
- RC Remote Contacts Terminal (Optional)
- TD Thermal Disconnect



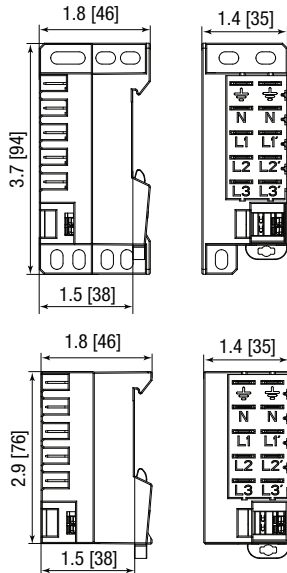
### ProBloc EV T2-xxx-3+1-V(-01-R)

#### Order Information

Order Code	300
ProBloc EV T2-xxx-3+1-V	515 760
ProBloc EV T2-xxx-3+1-V-R (with remote contacts)	515 761
ProBloc EV T2-xxx-3+1-V-01 (with flush mount)	515 762
ProBloc EV T2-xxx-3+1-V-01-R (with flush mount and remote contacts)	515 763

## Dimensions & Packaging

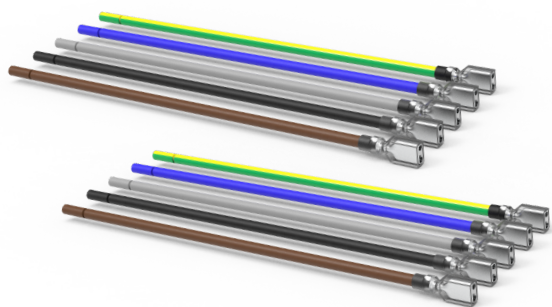
inches [mm]



#### Single Unit

<b>ProBloc EV T2-xxx-3+1-V</b>	<b>300</b>
Weight	pounds [grams] .234 [106.1]
<b>ProBloc EV T2-xxx-3+1-V-R</b>	<b>300</b>
Weight	pounds [grams] .239 [108.6]
<b>ProBloc EV T2-xxx-3+1-V-01</b>	<b>300</b>
Weight	pounds [grams] .244 [110.5]
<b>ProBloc EV T2-xxx-3+1-V-01-R</b>	<b>300</b>
Weight	pounds [grams] .247 [112]
Packaging Dimensions (HxWxL)	1.8 x 2.1 x 3.9" [46 x 54 x 100 mm]
Standard Order Quantity	12 Units

# ProBloc EV T2 V Cable Set



## ProBloc EV T2 V Cable Set

### Technical Data

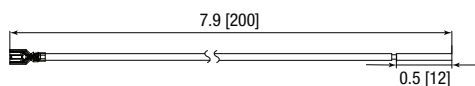
Length	7.8" [200mm]
Conductor Material	Copper
Conductor Cross Section (max)	10 AWG / 6 mm <sup>2</sup>
Type of Faston	6.3x0.8
Type of Insulation Sleeve	TE 1-170823-6
Wire Testing Voltage (min)	1500V
Type of Wire	Flexible

### Order Information

Order Code	
Cable set 5 (with insulated fast-on connector)	515 792
Cable set 10 (with insulated fast-on connector)	515 764

## Dimensions & Packaging

inches [mm]



### Complete Unit

#### Cable Set 5

Weight	pounds [grams]	.154 [70]
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#### Cable Set 10

Weight	pounds [grams]	.309 [140]
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Packaging Dimensions (HxWxL)	4.3 x 4.5 x 13.8" [109 x 115 x 352 mm]
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Standard Order Quantity	12 Units
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Information contained in this document is subject to change at any time without notice.

