

# DATA SHEET

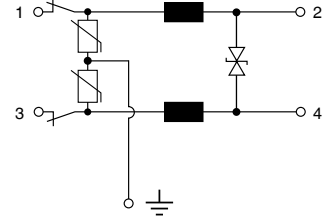
## SPD for DC Power Systems with Low Residual Voltage

### RayDat PSC-2 Series

C1 • C2 • C3



IEC/EN Category: C1/C2/C3  
 Surge Discharge Ratings:  $I_n$ : 10 kA,  $I_{max}$ : 20 kA  
 Voltages: 12, 24, 48 V DC  
 Serial Inductivity: 10–14  $\mu$ H  
 Housing: Modular Design  
 Compliance: IEC/EN 61643-21  
 Configuration:



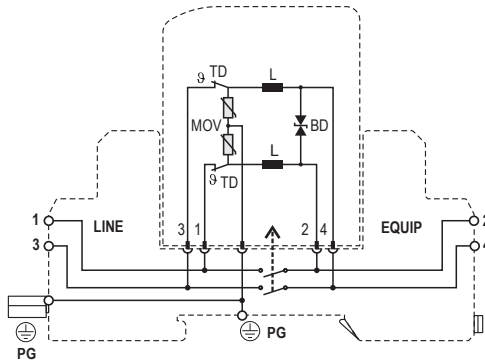
### Technical Data

PSC-2 Series	12	24	48	
<b>Electrical</b>				
Lines Protected	1 (2 Conductors)			
Nominal Operating Voltage (DC)	$U_n$ 12V	24V	48V	
Maximum Continuous Operating Voltage (DC)	$U_c$ 15V	28V	52V	
Rated Operating Current at 25 °C	$I_L$	4 A		
C2 Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	10 kA		
Maximum Discharge Current (8/20 $\mu$ s)	$I_{max}$	20 kA		
Residual Voltage at 5 kA (8/20 $\mu$ s)	$U_{res}$	< 32V	< 60V	< 135V
Rated Spark Overvoltage	(1, 3-PG)	90-110V	90-110V	90-110V
	(1, 3)	16-20V	30-36V	57-69V
Response Time Overvoltage Protection	$t_A$	< 1 ns		
Thermal Protection	Thermal Disconnection			
Insulation Resistance of the Protection	$R_{iso}$	$\geq 15 M\Omega$	$\geq 28 M\Omega$	$\geq 52 M\Omega$
Serial Inductance per Path	L	10–14 $\mu$ H		
Transverse Capacitance	C	< 5nF	< 3nF	< 1.5nF
<b>Mechanical</b>				
Temperature Range	-40 °F to +176 °F [-40 °C to +80 °C]			
Terminal Cross Section Multi-strand (max.)	12 AWG [4 mm <sup>2</sup> ]			
Terminal Screw Torque	4.5 lbf-in [0.5 Nm]			
Degree of Protection IEC/EN 60529	IP 20 (built-in)			
Housing Material	Thermoplastic; Grey; Extinguishing Degree V-0			
Mounting IEC/EN 60715	35mm DIN Rail			
<b>Order Information</b>				
Order Code	12	24	48	
PSC-2-xx	7086.83	7086.84	7086.85	
PSC-2-xxM (module)	7086.86	7086.87	7086.88	

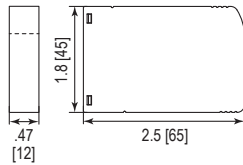
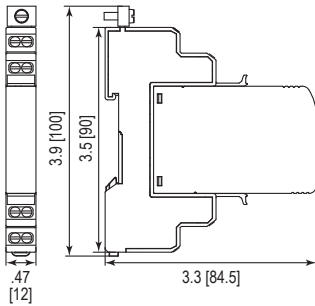
# RayDat PSC-2 Series

## Internal Configuration

- Legend**  
 BD Bi-Directional TVS Diode  
 L Inductor  
 MOV Metal Oxide Varistor  
 PG Protective Ground  
 TD Thermal Disconnecter



## Dimensions & Packaging



PSC-2 Series	12	24	48
<b>Dimensions</b>			
Weight per Unit	2.25 oz [64 g]		
Dimensions DIN 43880	2/3 TE		
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]		
Minimum Package Quantity	15 pieces		

PSC-2-xxM	12	24	48
<b>Dimensions</b>			
Weight per Unit	1.26 oz [36 g]		
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]		
Minimum Package Quantity	15 pieces		

inches  
[mm]

Information contained in this document is subject to change at any time without notice.

