

DATA SHEET

Modular SPD for Single Pair

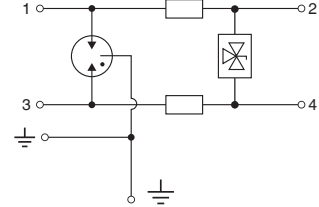
RayDat SPH-2 Series

D1 • C1 • C2 • C3

UL Listed

IEC/EN Category: D1/C1/C2/C3
 Surge Discharge Ratings: I_n : 10 kA, I_{max} : 20 kA, I_{imp} : 2.5 kA
 Voltages: 30 V DC
 Frequency Range: 30 MHz, 10 MHz
 Housing: Modular Design
 Compliance: IEC/EN 61643-21
 UL 497B 4th Edition

Configuration:

**Technical Data****SPH-2 Series****30****Electrical**

Lines Protected		1 (2 Conductors)
Nominal Operating Voltage (DC)	U_n	30V
Maximum Continuous Operating Voltage (DC)	U_c	33V
Rated Load Current at 25°C	I_L	1 A
C2 Nominal Discharge Current (8/20 μ s)	I_n	10 kA
Maximum Discharge Current (8/20 μ s)	I_{max}	20 kA
D1 Impulse Current (10/350 μ s)	I_{imp}	2.5 kA
Residual Voltage at 5 kA (8/20 μ s)	(Line-Line) U_{res}	< 80V
Rated Spark Overvoltage	(Line-Ground)	184-276V
	(Line-Line)	36-44V
Response Time Overvoltage Protection	(Line-Line) t_A	< 1 ns
	(Line-Ground)	< 100 ns
Insulation Resistance of the Protection	(Line-Ground) R_{iso}	> 1 G Ω /100V
	(Line-Line)	\geq 33 M Ω
Serial Resistance per Path	R	1.6-2.0 Ω
Transverse Capacitance	(Line-Line) C	50 pF
	(Line-Ground)	5 pF
Cut-off Frequency	f_G	30 MHz

Mechanical

Temperature Range		-40 °F to +176 °F [-40 °C to +80 °C]
Terminal Cross Section Multi-strand (max.)		12 AWG
		4 mm ² , 2.5 mm ² Q Version
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		35 mm DIN Rail

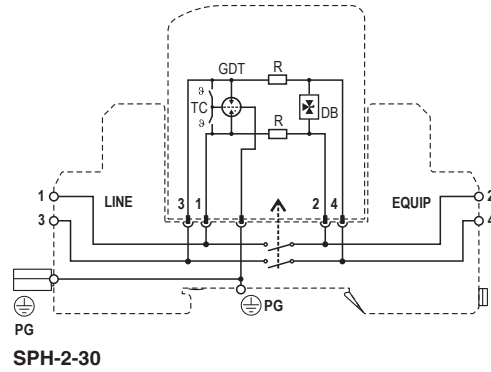
Order Information

Order Code		30
SPH-2-xxx		7082.84
SPH-2-xxxQ (Quick Connect Terminals)		7085.25
SPH-2-xxxM (module)		7082.85

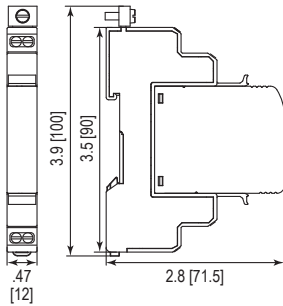
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Internal Configuration

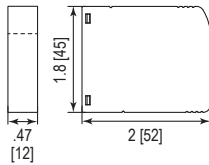
- Legend**
 DB Diode Block
 GDT Gas Discharge Tube
 PG Protective Grounding
 R Resistor
 TC Thermo-clip



Dimensions & Packaging

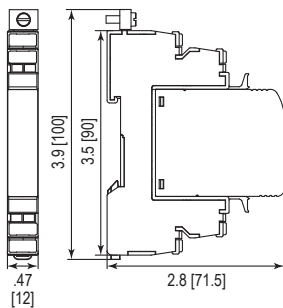


SPH-2 Series	30
Dimensions	
Weight per Unit	1.83 oz [52 g]
Dimensions DIN 43880	2/3 TE
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces



SPH-2-xxxM Series	30
Dimensions	
Weight per Unit	.84 oz [24 g]
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

Quick Connect Terminals



SPH-2-xxxQ Series	30
Dimensions	
Weight per Unit	1.9 oz [54 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

inches
[mm]

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

