

DATA SHEET

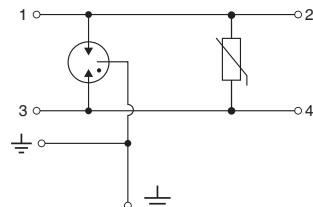
Modular SPD for Single Pair

RayDat SPH-2-230

D1 • C1 • C2 • C3



IEC/EN Category: D1/C1/C2/C3
 Surge Discharge Ratings: I_n : 10 kA, I_{max} : 20 kA, I_{imp} : 2.5 kA
 Voltages: 230 V DC
 Frequency Range: 30 MHz, 10 MHz
 Compliance: IEC/EN 61643-21
 Configuration:



Technical Data

SPH-2-xxx

230

Electrical

Lines Protected		1 (2 Conductors)
Nominal Operating Voltage (DC)	U_n	230 V
Maximum Continuous Operating Voltage (DC)	U_c	320 V
Rated Load Current at 25°C	I_L	5 A
C2 Nominal Discharge Current (8/20 µs)	I_n	10 kA
Maximum Discharge Current (8/20 µs)	I_{max}	20 kA
D1 Impulse Current (10/350 µs)	I_{imp}	2.5 kA
Residual Voltage at 5 kA (8/20 µs)	(Line-Line) U_{res}	< 700 V
Rated Spark Overvoltage	(Line-Ground)	350-550 V
	(Line-Line)	350-429 V
Response Time Overvoltage Protection	(Line-Line) t_A	< 25 ns
	(Line-Ground)	< 100 ns
Insulation Resistance of the Protection	(Line-Ground) R_{iso}	> 1 GΩ/100 V
	(Line-Line)	≥ 100 MΩ
Serial Resistance per Path	R	0.1 Ω
Transverse Capacitance	(Line-Line) C	100 pF
	(Line-Ground)	5 pF
Cut-off Frequency	f_G	10 MHz

Mechanical

Temperature Range	-40 °F to +176 °F [-40 °C to +80 °C]
Terminal Cross Section Multi-strand (max.)	12 AWG
	4 mm², 2.5 mm² 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

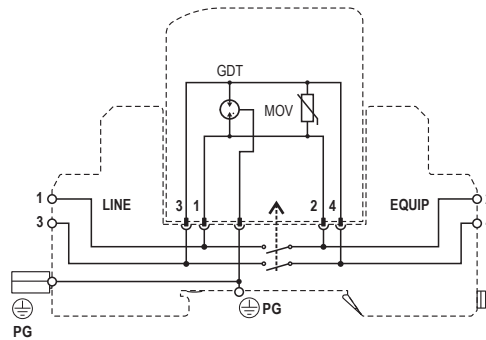
Order Code	230
SPH-2-xxx	7081.06
SPH-2-xxxQ (Quick Connect Terminals)	7085.26
SPH-2-xxxM (module)	7081.08

RayDat SPH-2-230

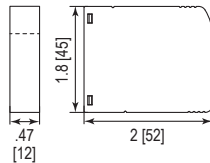
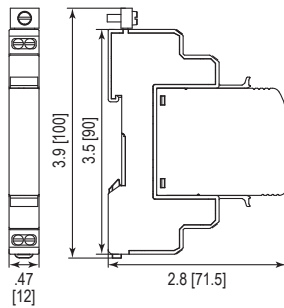
Internal Configuration

Legend

GDT Gas Discharge Tube
MOV Metal Oxide Varistor
PG Protective Grounding



Dimensions & Packaging



SPH-2-xxx

230

Dimensions

Weight per Unit	2.11 oz [60 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

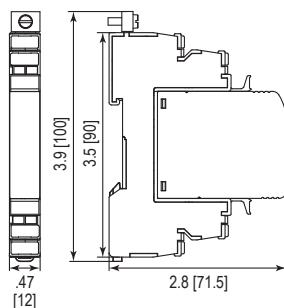
SPH-2-xxxM Series

230

Dimensions

Weight per Unit	.91 oz [26 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

230

Dimensions

Weight per Unit	2.18 oz [62 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.

RoHS
COMPLIANT



Raycap

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G29-01-048 201120