

DATA SHEET

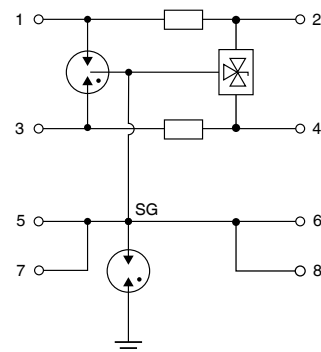
SPD with Separated Signal Ground (RS 232)

RayDat SGH-3-110

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: 110V DC
 Frequency Range: 30 MHz
 Housing: Modular Design
 Compliance: IEC/EN 61643-21
 Configuration:



Technical Data

SGH-3-xxx

Electrical

Lines Protected		1 (2 Conductors)
Nominal Operating Voltage (DC)	U_n	110V
Maximum Continuous Operating Voltage (DC)	U_c	170V
Rated Load Current at 25°C	I_L	1 A
C2 Nominal Discharge Current (8/20µs)	I_n	10 kA
Maximum Discharge Current (8/20µs)	I_{max}	20 kA
D1 Impulse Current (10/350µs)	I_{imp}	2.5 kA
Residual Voltage at 5kA (8/20µs)	(Line-Line) U_{res}	<450V
Rated Spark Overvoltage	(SG-Ground)	184-276V
	(Line-Line), (Line-SG)	184-264V
Response Time Overvoltage Protection	(Line-Line) t_A	<1 ns
	(Line-Ground)	<100ns
Insulation Resistance of the Protection	(Line-Line) R_{iso}	≥ 170 MΩ
	(Line-Ground)	> 1 GΩ/100V
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 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

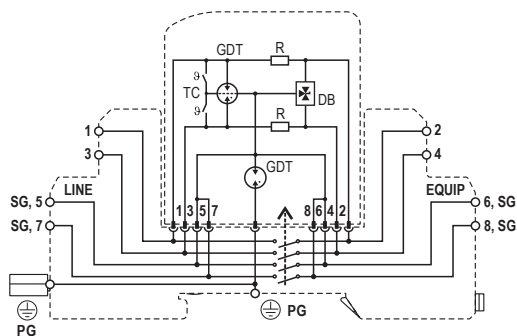
Order Code	110
SGH-3-xxx	7086.68
SGH-3-xxxM (module)	7086.76

RayDat SGH-3-110

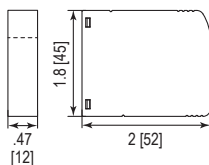
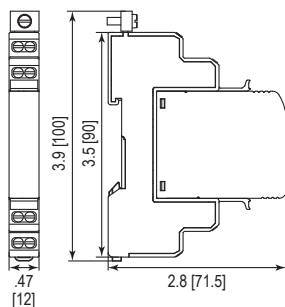
Internal Configuration

Legend

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



Dimensions & Packaging



SGH-3-xxx

110

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

SGH-3-xxxM Series

110

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

inches
[mm]

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

RoHS
COMPLIANT  CE

Raycap

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