

SPD for DC Power Supply & Data
RayDat SUH-2 PS
D1 • C1 • C2 • C3



IEC/EN Category: D1/C1/C2/C3
 Mode of Protection: Longitudinal, Transverse
 Coarse Protection: 3 Terminal GDT (Data Line)
 MOVs (PS Line)
 Voltages: 24V DC (Data Line)
 24V AC (Power Line)
 Frequency Range: 30MHz
 Surge Discharge Ratings: I_n : 10kA, I_{max} : 20kA, I_{imp} : 2.5kA
 Series Load Current: 1A (Data Line), 3A (PS Line)
 Enclosure: DIN 43880 2/3 TE, DIN Rail Mount
 Terminals: Stranded to 4 mm²
 Housing: Modular Design
 Compliance: IEC/EN 61643-21

The RayDat SUH-2 PS Series has been developed for protection of systems with one supply and one signal line (CAN bus, DeviceNet,...).

This efficient overvoltage protective device is intended to protect line from overvoltage surges and electrostatic discharges created by switching transients in buildings.

The signal line circuit is designed to minimize inter-capacitance, and shunt capacitance, thereby maximizing the operating frequency to 30 MHz.

If the module is unplugged out of the base, the connection lines remain enabled.

Technical Data

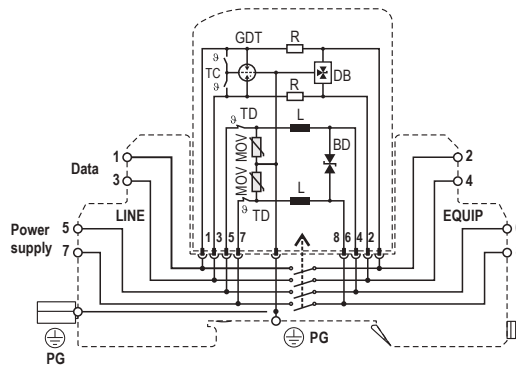
SUH-2 PS		Data Line	Power Supply Line
Electrical			
Lines Protected		2 (1 Data Line + 1 Power Supply Line)	
Nominal Operating Voltage (DC)	U_n	24V	24V AC /30V DC
Maximum Continuous Operating Voltage (DC)	U_c	28V	28V AC /40V DC
Rated Load Current at 25°C	I_L	1 A	3A
C2 Nominal Discharge Current (8/20µs)	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)	U_{res}	<70V	<100V
Rated Spark Overvoltage	(Line-Ground)	31-37V	42-52V
	(Line-Line)	31-37V	90-110V
Response Time Overvoltage Protection	t_A		< 1 ns
Insulation Resistance of the Protection	R_{iso}	≥ 28 MΩ	≥ 40 MΩ
Serial Resistance per Path	R	1.6-2.0Ω	<0.2Ω
Serial Inductivity	L		15µH
Transverse Capacitance	C	50pF	6.0nF
Cut-off Frequency	f_G	30MHz	1 kHz
Mechanical			
Temperature Range		-40 °C to +80 °C	
Terminal Cross Section Multi-strand		4 mm ²	
Terminal Screw Torque		0.5Nm	
Degree of Protection IEC/EN 60529		IP 20	
Housing Material		Thermoplastic; Grey; Extinguishing Degree V-0	
Mounting IEC/EN 60715		35 mm DIN Rail	
Order Information			
Order Code		24V	
SUH-2-xxPS		7086.81	
SUH-2-xxPSM (module)		7086.82	

RayDat SUH-2 PS

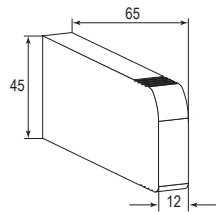
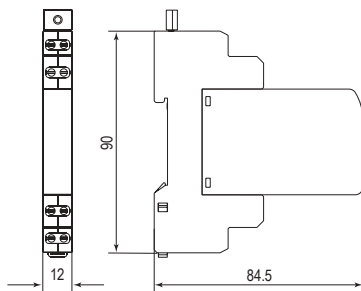
Internal Configuration

Legend

- BD Bi-directional TVS Diode
- DB Diode Block
- GDT Gas Discharge Tube
- L Inductor
- MOV Metal Oxide Varistor
- PG Protective Grounding
- R Resistor
- TC Thermo-clip
- TD Thermal Disconnecter



Dimensions & Packaging



SUH-2-xxPS	24V
Dimensions	
Weight per Unit	72g
Dimensions DIN 43880	2/3 TE
Packaging Dimensions (Single Unit)	87 × 15 × 102 mm
Minimum Package Quantity	15 pieces

SUH-2-xxPSM	24V
Dimensions	
Weight per Unit	34g
Packaging Dimensions (Single Unit)	87 × 15 × 102 mm
Minimum Package Quantity	15 pieces