

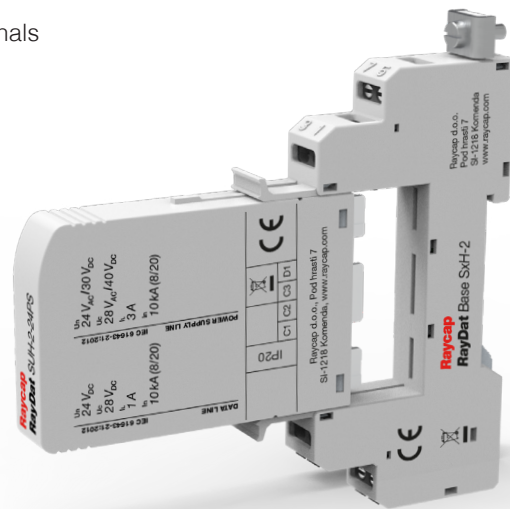
## Surge Protective Devices (SPDs) for Power and Signal Lines

RayDat SUH-2-PS

### Power and Signal Lines

#### Special features:

- Very high surge ratings
- The connection lines remain enabled during module replacement
- Protection of up to 2 signal lines and 1 power line
- Equipped with screw terminals



#### Symbol Legend:



*DIN Rail  
Mounting*



*Screw Connect  
Terminals*



*Modular Design*



*Shield Directly  
Grounded*

The RayDat SUH-2 PS Series has been developed to protect systems with one supply and one signal line (CAN bus, DeviceNet, etc.). This efficient overvoltage protective device is intended to protect lines 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.

# DATA SHEET

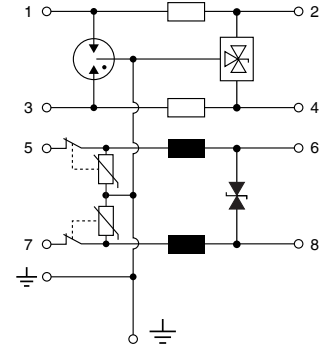
## SPD for DC Power Supply & Data

### RayDat SUH-2 PS

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: 24 V DC (Data Line)  
 24 V AC (Power Line)  
 Frequency Range: 30 MHz  
 Housing: Modular Design  
 Compliance: IEC/EN 61643-21  
 Configuration:



## 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)	$U_n$	24 V	24 V AC/30 V DC
Maximum Continuous Operating Voltage (DC)	$U_c$	28 V	28 V AC/40 V DC
Rated Load Current at 25°C	$I_L$	1 A	3 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)	$U_{res}$	< 70 V	< 100 V
Rated Spark Overvoltage	(Line-Ground)	31-37 V	90-110 V
	(Line-Line)	31-37 V	42-52 V
Response Time Overvoltage Protection	$t_A$	< 1 ns	
Insulation Resistance of the Protection	$R_{iso}$	$\geq 28 M\Omega$	$\geq 40 M\Omega$
Serial Resistance per Path	$R$	1.6-2.0 $\Omega$	< 0.2 $\Omega$
Serial Inductivity	$L$	15 µH	
Transverse Capacitance	$C$	50 pF	6.0 nF
Cut-off Frequency	$f_G$	30 MHz	1 kHz

#### Mechanical

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

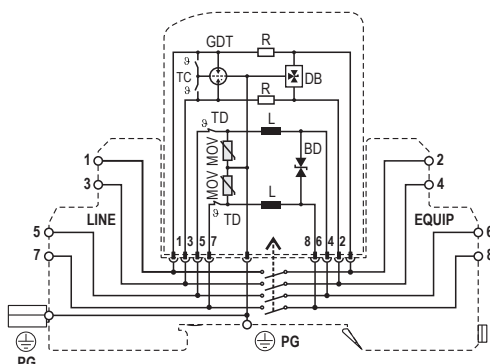
Order Code	24
SUH-2-xxPS	7086.81
SUH-2-xxPSM (module)	7086.82

## RayDat SUH-2 PS

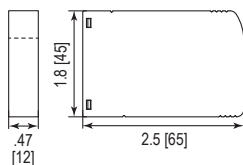
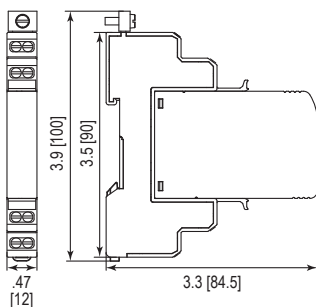
### Internal Configuration

#### 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

24

##### Dimensions

Weight per Unit	2.53 oz [72 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

#### SUH-2-xxPSM

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##### Dimensions

Weight per Unit	1.19 oz [34 g]
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102 mm]
Minimum Package Quantity	15 pieces

inches  
[mm]

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COMPLIANT  CE

**Raycap**

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