

# DATA SHEET

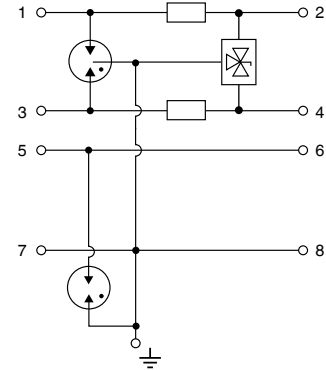
## SPD for Shielded Cable RayDat SSH-3 Series D1 • C1 • C2 • C3

\*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: 5\*, 12\*, 15, 24, 30\*, 48, 60 V DC  
 Frequency Range: 30 MHz  
 Housing: Modular Design  
 Compliance: IEC/EN 61643-21  
 UL 497B 4th Edition

Configuration:



### Technical Data

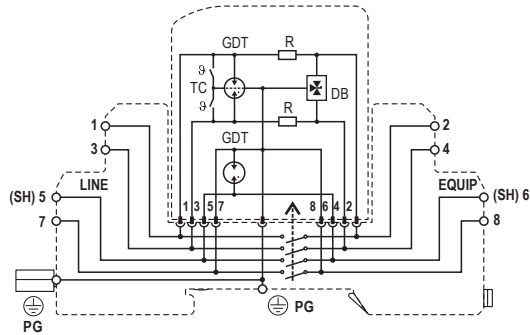
SSH-3 Series		5*	12*	15	24	30*	48	60
<b>Electrical</b>								
Lines Protected		1 (2 Conductors)						
Nominal Operating Voltage (DC)	$U_n$	5V	12V	15V	24V	30V	48V	60V
Maximum Continuous Operating Voltage (DC)	$U_c$	6V	15V	18V	28V	33V	52V	64V
Rated Load Current at 25°C	$I_L$	1 A						
C2 Nominal Discharge 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) $U_{res}$	<22V	<42V	<48V	<70V	<80V	<140V	<160V
Rated Spark Overvoltage	(Shield-Ground)	184-276V						
	(Line-Line), (Line-Ground)	7-10V	16-21V	20-24V	30-36V	35-43V	55-68V	67-85V
Response Time Overvoltage Protection (Shield-Ground)	$t_A$	<100ns						
	(Line-Line), (Line-Ground)	<1 ns						
Insulation Resistance of the Protection (Shield-Ground)	$R_{iso}$	> 1 GΩ/100V						
	(Line-Line), (Line-Ground)	≥ 6 KΩ	≥ 15 MΩ	≥ 18 MΩ	≥ 28 MΩ	≥ 33 MΩ	≥ 52 MΩ	≥ 64 MΩ
Serial Resistance per Path	R	1.6-2.0 Ω						
Transverse Capacitance	(Shield-Ground) C	5 pF						
	(Line-Line), (Line-Ground)	50 pF						
Cut-off Frequency	$f_G$	30 MHz						
<b>Mechanical</b>								
Temperature Range		-40 °F to +176 °F [-40 °C to +80 °C]						
Terminal Cross Section Multi-strand (max.)		12 AWG [4 mm <sup>2</sup> , 2.5 mm <sup>2</sup> 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		35mm DIN Rail						
<b>Order Information</b>								
Order Code		5*	12*	15	24	30*	48	60
SSH-3-xxx		7086.01	7086.02	7086.03	7086.04	7086.05	7086.06	7086.07
SSH-3-xxxQ (Quick Connect Terminals)		7086.90	7086.91	7086.92	7086.93	7086.94	7086.95	7086.96
SSH-3-xxxM (module)		7086.09	7086.10	7086.11	7086.12	7086.13	7086.14	7086.15

# RayDat SSH-3 Series

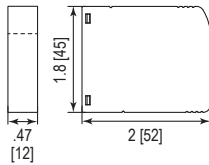
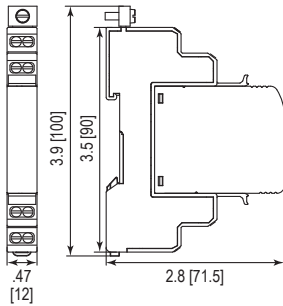
## Internal Configuration

### Legend

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



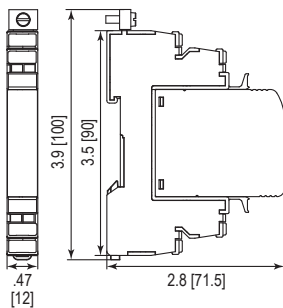
## Dimensions & Packaging



SSH-3 Series	5	12	15	24	30	48	60
<b>Dimensions</b>							
Weight per Unit	2.11 oz [60g]						
Dimensions DIN 43880	2/3 TE						
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102mm]						
Minimum Package Quantity	15 pieces						

SSH-3-xxxM Series	5	12	15	24	30	48	60
<b>Dimensions</b>							
Weight per Unit	.91 oz [26g]						
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102mm]						
Minimum Package Quantity	15 pieces						

## Quick Connect Terminals



SSH-3-xxxQ Series	5	12	15	24	30	48	60
<b>Dimensions</b>							
Weight per Unit	2.18 oz [62g]						
Dimensions DIN 43880	2/3 TE						
Packaging Dimensions (Single Unit)	3.4 x .59 x 4" [87 x 15 x 102mm]						
Minimum Package Quantity	15 pieces						

inches  
[mm]

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

