

PowerSure® DRS Series—Type 2 Modular Surge Protective Device



The DRS Type 2 Series Surge Protective Device (SPD) is designed to be easily installed in power and control panels using standard DIN-rail mounting brackets. This series of product offers 40,000 amps of both normal and common mode surge protection. The DRS series is available in single phase, split phase, three phase (3 wires) and three phase (4 wires) configurations.

Replaceable modules allow for easy maintenance and mount directly into the DRS base assembly, simplifying the replacement process. The status of the surge protector modules can be monitored through the indicator lenses or remotely through the alarm terminals.

Standard Features:

- Effectively handle high-energy transients on type TT, TN-C, TN-S, and TN-C-S power systems
- SPC rated Type 2 in accordance with EN 61643-11; Class I & II in accordance with IEC 61643-1
- Built-in thermal components disconnect SPD from the power source to avoid thermal runaway conditions
- Visual inspection windows on each module provide continuous status indication
- Three position terminals provide remote status monitoring capability
- DIN-rail mounting and plug-in module design allow for easy installation and maintenance
- Gas tube module option for type TT grounding systems
- 5 year warranty

Specifications

PowerSure® DRS Series—Type 2		
Nominal Discharge Current (8x20µs)	I_n	20kA
Maximum Discharge Current (8x20µs)	I_{max}	40kA
Nominal Voltage	U_n	120, 230, 240, 277, 346, 480, 600 volts
Maximum Continuous Operating Voltage	U_c	150, 320, 380, 420, 580, 680, 1000 volts
Voltage Protection Level	U_p	1.2 kV, 1.6 kV, 1.8 kV, 2.0 kV, 2.4 kV
Response Time	T_s	25ns
Relative Humidity		95%
Insulation Resistance		$>10^3$ M Ω
Temperature Range		-40°C to +85°C
Degree of Protection		IP20
Housing		ABS / PA UL94V0
Warranty		5 years

How to Specify the Appropriate Model

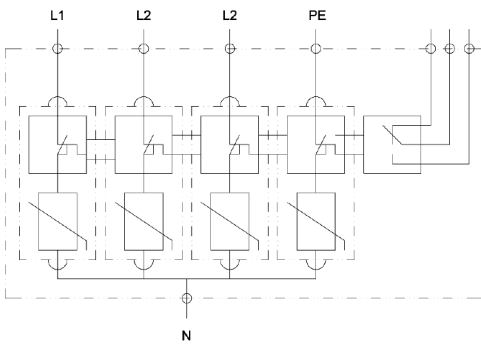
Example: DRS 120 3 1 Q

DRS	Nominal Voltage (U _n) (XXX)	# of Metal Oxide Varistor Modules* (X)	# of Gas Tube Modules** (X)	Higher Rated Voltage*** (Optional)
	120	0	0	Q
	230	1	1	
	240	2		
	277	3		
	346	4		
	480			
	600			

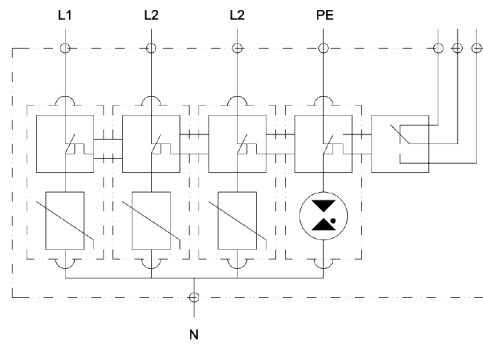
- * MOV modules are typically one module per phase and may be wired L-N, L-G or N-G.
- ** Gas tube modules typically used in the N-G mode for type TT grounding systems.
- *** Certain applications require higher rated components in order to survive frequent voltage rises. In this case, order a unit with a "Q" at the end of the part number.

Replacement modules available: Order DRS + Un + M (for MOV) or G (for Gas tube)

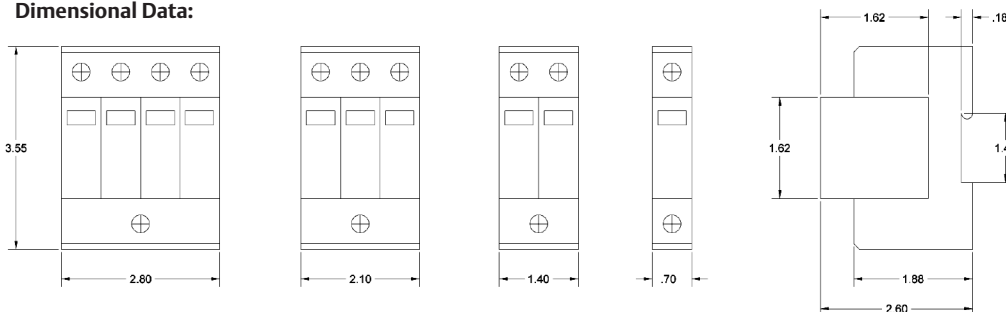
Typical MOV Model



Typical MOV/Gas Tube Model



Dimensional Data:



Mounting: Symetrical rail EN50022/DIN 46277-3

I/O Connections: By screw terminal 4-25mm² by connection bus

Headquarters

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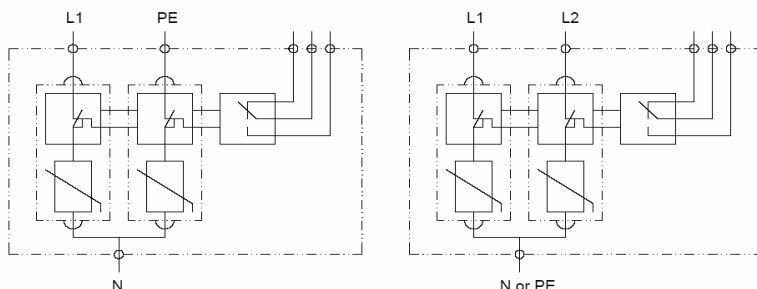
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- Services
- Surge Protection

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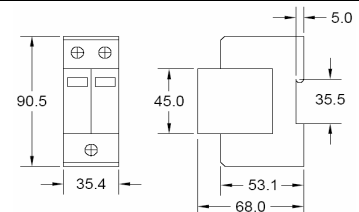
Electrical Characteristics

System Voltages	120V Single Phase (L, N, & G)	
Type of Network	TT-TN	
Modes of Protection	L-N & N-PE	
Modes of Protection	(x2) MOV Modules	
Nominal Voltage	U_n	120V
Rated Voltage (MCOV)	U_c	150V
Nominal Discharge Current (8 x 20 μ s)	I_n	20kA
Maximum Discharge Current	I_{max}	40kA
Voltage Protection Level	U_p	1.2 kV
Response Time	T_s	25 ns
Relative Humidity		95%
Isolation Resistance	R_{isol}	$>10^3 M\Omega$

Test Standards

EN 61643-11	Type 2
IEC 61643-1:1998-02	Class I & II

Mechanical Characteristics

Dimensions (mm)	
I/O Connections	By Screw Terminal: 4-25mm ² By Connection Bus
MOV Encapsulation Material	Epoxy Resin
Disconnection Indicator	Mechanical Indicator
Status Monitoring	Remote Alarm Terminals
Mounting	Symmetrical Rail (EN50022/DIN46277-3)
Operation Temperature Range	-40°C ~ +85°C
Degree of Protection	IP20
Disconnection Device	Thermal Cutoff System
Housing Material	ABS / PA UL94V0