

DSP600 Series

Distribution Surge Protector

Type 1/2/3 (Test Class I/II/III)

Single & Three Phase Surge Arresters



Ideal for industrial, commercial and domestic applications, the Distribution Surge Protector 600 (DSP600) provides an economic means of preventing damage to electrical distribution systems from mainsborne transient voltages. These transients may occur as the result of nearby lightning strikes or surges derived from the switching of inductive or capacitive loads.

Fusing:

The DSP600 is suitable for direct connection to a line rated up to 100A (6mm² min. connecting cables), but can be connected to lines of higher rating by the provision of series fuses rated 50A min – 100A max (BS HD 60269-2:2010, BS 88-2:2010). If MCBs are used in place of fuses they should be of type C.

Maintenance:

The DSP600 requires no maintenance but the LEDs should be checked at regular intervals to ensure that full protection is present. The remote signalling facility version allows the DSP600 to be installed in areas that are inaccessible for regular inspection.

Surge Test:

The test waveform – 6kV 1.2/50µs O/C, 3kA 8/20µs S/C – applied to the DSP600 gives the resultant let through voltage. See tabulation below. (The ‘let through voltage’ will vary due to the parasitic inductance of the associated mains cable.) Values given are at protector terminals.

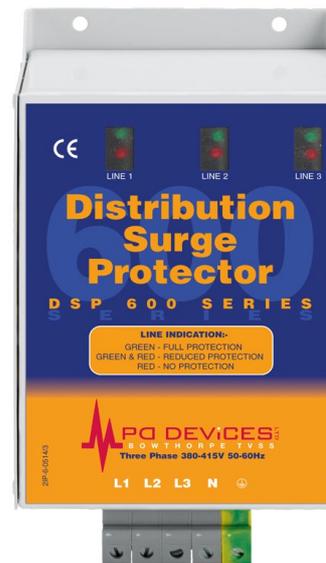
Quality Assurance:

Approved to BS EN ISO 9001

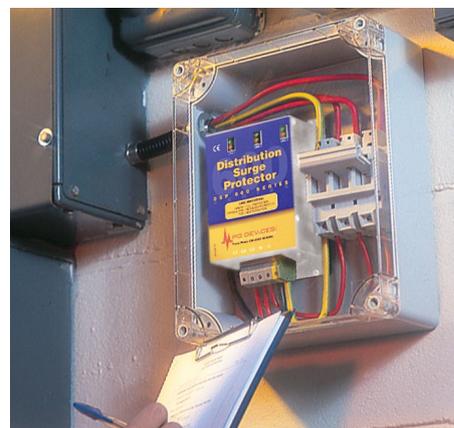
LET THROUGH VOLTAGE	
Test simulating the effects of lightning and switching transients	Phase/Neutral Phase/Earth
6kV 1.2/50µs open circuit voltage; 3kA 8/20µs short circuit current	600V
4kV 1.2/50µs open circuit voltage; 2kA 8/20µs short circuit current	560V
5kA 8/20µs	670V
6kV 0.5µs 100kHz ring wave, 500A	520V



DSP1/600



DSP3/600



Revision: vPD3, 16/08/19
Information subject to change without notice.

All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application.



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Specification	Single Phase	Three Phase
		
Voltage rating (Nominal)	230V rms	400V rms
Operating voltage range	200 - 300V rms	L-N 200 - 300 V rms L-L 350 - 500 V rms
Maximum current rating	Unlimited (Parallel Connection)	Unlimited (Parallel Connection)
Lightning impulse current (10/350 μ s)	6.25kA	6.25kA per phase
Maximum surge current handling (8/20 μ s)	40kA	40kA per phase
Response time	<10 ns	<10 ns
Power consumption (nominal)	10mA	10mA per phase
Leakage current to earth	200 μ A	600 μ A
Terminals	16mm ² max - Line, Neutral, Earth 2.5mm ² max - Remote Signalling	16mm ² max - Line, Neutral, Earth 2.5mm ² max - Remote Signalling
Operating temperature	-40° to +70° Celcius	-40° to +70° Celcius
Light emitting diodes status indication	Green - Full Protection Red & Green - Reduced Protection Red - No Protection	Green - Full Protection Red & Green - Reduced Protection Red - No Protection
Case	Steel - Epoxy Paint	Steel - Epoxy Paint
Type according to BS EN 61643-11	1/2/3	1/2/3
Dimensions (in mm)		
L	176	176
W	42	110
D	72	72
Weight (in grams)	650	1110
Part Code: without remote signalling	DSP1/600	DSP3/600
Part Code: with remote signalling	DSP1A/600	DSP3A/600

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