

Distribution Surge Protector 600 Series

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:

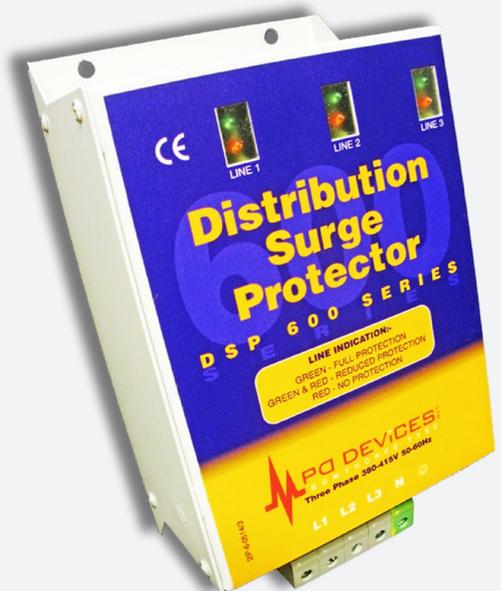
The DSP600 requires no maintenance but the LEDs should be checked at regular intervals to ensure that full protection is present. The remote signalling facility version allows the DSP600 to be installed in areas that are inaccessible for regular inspection.

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.



375-9143 Single Phase



375-9137 Three Phase

Quality Assurance:

Approved to BS EN ISO 9001

Specification	Single Phase	Three Phase
	 375-9143 	 375-9137 
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)
Maximum surge current handling (8/20 μ s)	30kA	30kA 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	2	2
Dimensions (in mm)		
L	176	176
W	42	110
D	72	72
Weight (in grams)	650	1110
Manufacturers Part Code	RS-DSP1/600	RS-DSP3/600
RS Part Code	375-9143	375-9137

LET THROUGH VOLTAGE

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