600SM SURGE PROTECTOR MODULE

Installation and consumer operating instructions

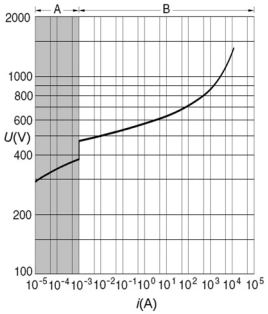
FEATURES

Voltage pulses of even very low energy can produce interference and damage to modern electronic equipment. Your PDL 600SM Surge Protector Module provides protection from these small to moderate energy surges and spikes, which propagate through the mains circuit due to indirect lightning strikes, switching highly inductive loads (large motors), noise from control devices, etc. Additional features of your 600SM include:

- Illuminated protection confirmation
- 600-Series mounting compatiblility
- Selectable colour-matched cover plates

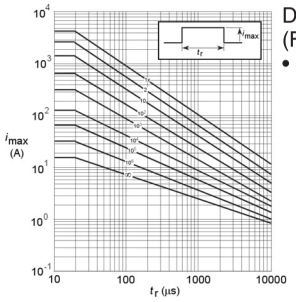
SPECIFICATIONS

Nominal voltage rating.....U_n 250V a.c. 50Hz
Protection type.....Metal Oxide Varistor (MOV)
Maximum continuous voltage.....U_c 275V a.c. 50Hz
Maximum discharge current.....I_{max} 8.0kA (once, 8/20µsec)
Maximum clamping voltage.....U_{clamp} 710V @ 100A
Normal power consumption.....P_{max} <1W
Maximum energy absorption.....W_{max} 151J (2ms)



V/I diagram (Figure 1)

- Use the area under A to determine the leakage current at various voltage levels.
- Use the area under B to determine the residual voltage at various surge current values.



Derating Curves (Figure 2)

- This figure indicates the number of surge pulses the 600SM can withstand at various surge current levels and time durations.

INSTALLATION

The installation depicted in Figure 3 shows a typical application of the 600SM surge protector module in a 695X Switched Socket. However, the 600SM is compatible with any 600-Series product with a spare module aperture (for example, in a switch plate to conveniently protect expensive or hard to reach lighting fixtures). Simply snap the module into the aperture and terminate as detailed in the wiring diagram shown in Figure 4.

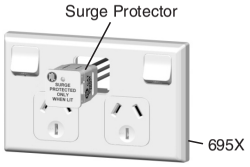


Figure 3, Assembly diagram

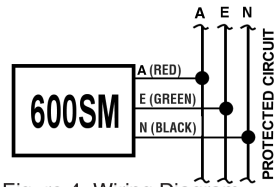
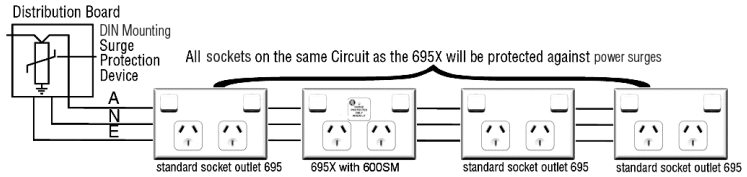


Figure 4, Wiring Diagram

For upstream and downstream circuit protection, a single 600SM may be used:



When the installation is complete and power is applied to the circuit, check that the indicator light on the front of the unit is on. This confirms that the 600SM is operating and ready to protect your circuit from a power surge.

OPERATION

The 600SM operates passively. Once the unit is installed and the indicator light is on, it is ready and protecting your circuit from a power surge. However, the 600SM is only able to absorb a limited number of surges, as defined in the Derating Curves detailed in Figure 2. To ensure your circuit is always protected, you should periodically check the 600SM to confirm that the indicator light is on. Also check the unit in the following instances:

- Whenever the circuit the 600SM is connected to has had its MCB tripped/thrown,
- After a major electrical event, such as an electrical storm, power failure, failure of equipment connected to the system, etc.

WARNING: Your circuit is NOT protected if the indicator light is NOT lit.

NOTE: No Surge Protection Device can give guaranteed protection against all power surges. Large power surges still have the potential to destroy the surge protection module and damage other devices attached to the circuit. For added surge protection Schneider Electric recommends medium surge protection is fitted at the Distribution Board i.e. Merlin Gerin Cat 16571, or 16566.

PRODUCT WARRANTY/12 MONTHS

The PDL Cat 600SM has a 12 month warranty from the date of purchase providing the unit is installed according to these instructions, local wiring regulations and Codes of Practice. This warranty is void on any unit which has been tampered with, damaged by accident, improper operation or incorrect installation.
This guarantee is in addition to, and does not in any way affect the rights under the Consumer Guarantees Act 1993, if the Act applies to the supply of this product and you are not acquiring the product for a business use. If the ACT applies and any term is inconsistent with the terms or requirments of the Act that term shall be invalid without affecting the remaining terms of the warranty.
Notes: Under the CGA 1993, Schneider Electric advises that this product does not contain user serviceable components thus spare parts and repair facilities are not available.
In the event of a warranty claim, the product must be returned to the point of purchase or direct to Australia/New Zealand distributors together with the proof of purchase.

PDL

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SYSTEM CERTIFICATION ISO 14001 SGS

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