

SRG1VCU-RM

Retrofit Type 2 Single Phase Surge Arrester
for residential installations

Electrical surges are an everyday constant source of stress for fragile electronic components. These stresses slowly degrade or erode the electronic components, considerably shortening the life span of the expensive appliances in which they are used.



SRG1VCU-RM is a single phase type 2 surge arrester assembly, for use on TN-C-S (PME) / TN-S / & TT networks. It is designed for retro-fitting application, to provide protection of electrical appliances against impulse surges, where it is not possible to accommodate a suitable surge arrester directly within the existing consumer unit.

This product can be installed at the origin of a residential installation, only where there is little or no risk from direct lightning strike (as determined by the risk assessment calculation within BS7671:2018 443.5).

It is primarily suited to installations located in an urban area, without an external lightning protection system, and fed from an underground power source.

It is not suitable for buildings fed directly from overhead power lines.

SRG1VCU-RM provides protection against the effects of transient over voltages, generated by the switching of equipment; either from within the installation, or from the electrical distribution network when power is switched or re-established by the utility company following a substation outage or distribution network fault.

Type 2 surge arresters cannot provide adequate protection against the effects of a transient over voltage caused by a direct lightning strike on an installation, but do offer protection against the secondary effects of an indirect lightning strike.

Installation

The device must be installed by a qualified electrician in accordance with the latest edition of the IET wiring regulations for electrical installations BS7671. One surge arrester provides protection for all circuits on the installation.

Important:

The unit must parallel connected to the existing consumer unit (see diagram). No modification within the existing consumer unit is necessary.

The total cable length for connection of the surge arrester, i.e. the distance between the live conductor and earth terminal (via the surge arrester) must be kept to the shortest possible length, using the most direct route, to avoid any additive voltage drops on the connecting cable.

The total cable length from the live conductor to the earth terminal should preferably not exceed 0.5m, but in no case exceed 1m. Refer to of BS7671:2018 section 534

Insulation resistance testing: Important

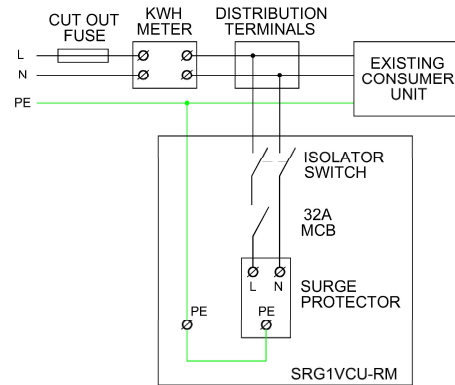
When conducting insulation resistance tests on the installation, the surge protector cartridge must be removed from its holder. Failure to do so will also obscure the results of the IR test.

Status Indicator

A coloured flag indicator is provided on the front of the device to display its health condition. The indicator must be checked periodically.

A black flag indicates that the device is healthy and operational.

A red flag indicates that the surge protector has reached end of life and no longer offers protection. The item is non-serviceable and must be replaced.



| Technical Data | |
|---|--|
| Reference standard | IEC/ EN61643-11 |
| Test class according to EN61643-11 | Type 2 |
| Nominal Voltage (Un) | 230-240V ac |
| Max continuous operating voltage (Uc) | 275V ac |
| Nominal discharge current (In) (8/20μs) | 5kA (L/N, L/PE) 20kA (N/PE) |
| Voltage protection level at Uoc (Up) | <1.5kV (L/N) <1.5kV (L/PE) <1.5kV (N/PE) |
| Temporary overvoltage (TOV) | 335V/5S (L/N) 1200V+Uo/ 0.2S (L/PE) |
| Response time | <25ns (L/N) <100ns (L/PE, N/PE) |
| Min-Max conductor size | 6-25mm ² |
| Cable connecting length (maximum) | 500mm total or less |
| Terminal tightening torque: Surge protector | 1.2-1.5Nm L/N 2.0-2.5Nm PE |
| Terminal tightening torque: Main switch & MCB | 2.5Nm |
| Ingress protection rating | IP20 |
| Overall dimensions (mm) | 250H x 135W x 88D |
| Upstream cut out fuse rating | 50-100A |



THIS GUIDE MUST BE LEFT WITH THE UNIT
FOR FUTURE REFERENCE