Enclosed Surge Protection with 100A Main Switch
Type 2 Surge Device

For protection against transient overvoltages and switching overvoltages.

Surge protection devices are designed to protect electronic equipment within an installation from the harmful effects of overvoltages.
BS 7671 regulation 443.4 states; Protection against transient overvoltages shall be provided where the consequence caused by overvoltage could:

(i) result in serious injury to, or loss of, human life, or
(ii) result in interruption of public services and/or damage to cultural heritage, or
(iii) result in interruption of commercial or industrial activity, or
(iv) affect a large number of co-located individuals.

Where required to comply with regulation 421.1.201 a version with a metal door is available.
421.1.201 Within domestic (household) premises, consumer units or similar switchgear assemblies shall comply with BS EN 61439-3 and shall:
(i) have their enclosure manufactured from non-combustible material

The unit is designed to be installed before the consumer unit or distribution board on an installation fed by meter tails (BS 6004). Meter tails can be connected into and out of the 100 A switch with the surge protection device in parallel. The main earthing conductor is also connected into and out of the earth terminal on the surge protection device.

The Line is protected by a Metal Oxide Varistor (MOV) and the neutral by a spark gap device. The Metal Oxide Varistor will degrade each time it deals with high voltage or electromagnetic disturbances, when it is end of life the flag will turn red and the cartridge will require to be changed. At this point the cartridge will fail open circuit and the device will no longer provide surge protection. Simply remove the cartridge and replace with a new cartridge (SPD015D). The rest of the installation will remain unaffected.

VA4T2SDSPD

Description	Reference
Enclosed Type II Surge Protection with 100 A Main Switch	**VA4T2SDSPD**
Enclosed Type II Surge Protection with 100 A Main Switch and Metal Door	**VA4T2SDSPDD**

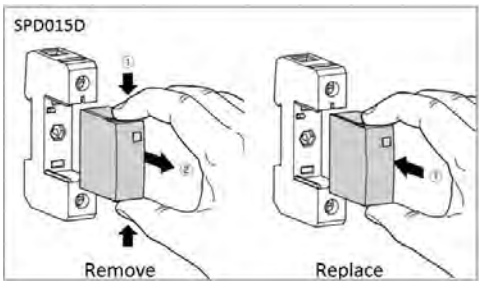
Features & Benefits

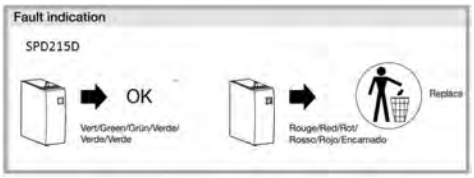
- Protects the installation against transient overvoltages
- End of life indicator on Line cartridge gives indication when replacement is required.
- Ideal when retrofitting surge protection to an installation
- No space required inside existing consumer unit or distribution board.
- Complete with 2 cable entry plates for 2 x 25mm^2 meter tails and 1 x 16mm^2 earthing conductor

Technical Characteristics

Standard	BS EN 61439-3
Pole	2P
Neutral Position (Main Switch)	Right
Rated operational voltage	230 V
Rated Frequency	50 / 60 Hz
Max discharge (Imax) or impulse (Iimp)	15 kA
Nominal discharge current (In)	5 kA
Voltage protection level Up according to IEC 61643-1	1 kV
Voltage continuous operating voltage Uc	275 V
Nominal Tightening Torque	3.6 Nm
Pollution Degree to IEC 60664 / IEC 60947-2	2
Protection index IP	IP2X
Working Temperature	-40°C up to 60°C
Storage Temperature	-40°C up to 80°C
Altitude	2000 m
Remote contact	No
Connection Capacity	35mm²
Size H x W x D	115mm x 187mm x 87.5mm
RoHs	Voluntary Conformity
Warranty	2 Years

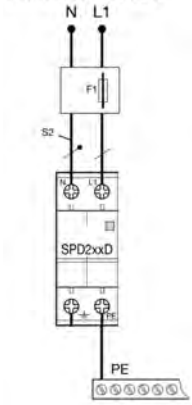
To remove a cartridge when flag is red





Position of SPD in installation

TT/ TN-S/ TNC-S



Overcurrent protection (F1) is provided by the upstream over current protection device (OCPD) which for a consumer unit is generally the service cut-out fuse.

SPD Characteristics

	I_n (8/20 µs)	I_{max} (8/20 µs)	U_p	U_c	F1 max ⊟	I_{pe}	I_{sccr}	
SPD215D	5 kA	15 kA	≤ 1 kV	275 V (50/60 Hz)	125 A gG	< 5 µA	10 kA_{rms}	SPD015D