



We all have thousands of pounds worth of electrical goods in our homes and on our driveways but what happens if there is a fault on the electricity network that supplies your property?

A fault on the electricity network could lead to,

- Overheating of your electrical installation and appliances
- Premature equipment failure
- Serious damage or destruction of appliances
- Potential fire hazard
- Danger of electrocution



Introducing the Guardian SP, a revolution in electrical safety!

The Guardian SP is simply installed next to your existing consumer unit (fuse board) helping to assist in preventing the risk of faults that can occur on the suppliers' network from entering your property via your main incoming grid supply.

Helping to protect, you, your home, and your electrical appliances.



Product Features and benefits

- Built in Power Frequency Over-voltage Protection and Automatic reset
- Surge Protection
- Simple wire in wire out connection
- Suitable for loads up to 100A
- Additional 32A double pole MCB, first steps to get your home EV and ASHP ready!
- IP2X Mild Steel Enclosure
- Standard 1 Year parts warranty
- Designed and manufactured in the UK
- Complies with latest electrical safety regulation 443.4.1



Single-phase protection unit

Protection explained...

OPEN Neutral protection is commonly used for protection against electric shock on Electric Vehicle charge point installations, and is designed to protect the user during a dangerous break in the PEN (Protective Earthed Neutral) conductor on the suppliers network. However, the danger is not limited to just PEN conductors and electric vehicle charge point installations.

Bad connections or breakages in the supply Neutral conductor in the three phase electricity supply upstream of your electrical installation can cause another type of fault, known as **Power Frequency Overvoltage**.

These excessive voltages may lead to the premature aging or even destruction of equipment, increasing electrical consumption, creating a potential fire risk in many given situations including within domestic dwelling homes. The "Guardian SP" is now available to assist in preventing such risks/hazards from entering your home via your main incoming grid supply.

Surge Protection provides protection against transient over voltages on the supply network.

These can be from lightning strikes on overhead power and telephone lines, or man-made.

During a surge, the voltage increases and will surge through the electrical installation, heating up the wiring which can cause fires or damage to equipment.

Man-made transient voltages are rising in domestic installations due to the increase in new technologies such as, EV Charge Points, Air and Ground Source Heating, speed controlled motors in washing machines, fridge, and freezer motors, etc.

Surge protection prevents these excessive voltages from entering the electrical installation by diverting them through the connected earth cables.

Providing protection to the electrical installation and equipment connected to it such as electric vehicles, computers, TVs, smoke detectors, fire alarms, burglar alarms, and heating controls.

EV ready connection, with the ban on sales of new petrol and diesel cars fast approaching it is inevitable that we all will be driving electric vehicles and be looking to have an EV charge point installed in our homes.

The Guardian SP has a built in double pole connection point which will help simplify the future installation of an EV charge point installation potentially saving you expense of future upgrade to your existing consumer unit.

If you are lucky enough to already own an EV charge point, the Guardian SP will help protect it from potential faults on the supply network.



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Description	Domestic protection unit	
Standard	BS EN 60898-1 IEC/EN 60947-2 IEC61643-11 (SPD) BS EN 50550 IEC 63052	
Certification	UKCA, CE	
Pol.	1P+N	
Rated current (A)	100A	
Rated voltage Ue	230	
Rated insulation voltage (V) Ui	500	
Maximum working voltage (V) Ui	440 AC	
Minimum working volage (V) Umin	12	
Rated working frequency (Hz)	50/60	
Rated impact resistance voltage (kV) Uimp	6kV	
Rated short circuit capacity Icn, 230V/400V (IEC/EN 60898)	10kA	
Rated limit short circuit breaking ability Icu, 230V/400V	25KA (IEC/EN 60947-2)	
Rated running short circuit breaking capability Ics, 230V/400V	75%Icn (IEC/EN 60947-2)	
Overtoltage class	IV	
Pollution levels	3	
Mechanical life	20000	
Electrical life	10000	
Protection grade	IP2X	
Torque settings'	3Nm max	
Cable sizes	25mm ²	
Warranty	1 Year	
Dimensions mm (H x W x D)	260 x 234 x 87	
Surge protection device (SPD)		
Energy coordination with terminal equipment (10m)	Type 2 + Type 3	
	MOV (Varistors)	GDT (Spark gap)
Max. continuous operating voltage (AC) (Uc)	275V (50/60Hz)	255V (50/60Hz)
Nominal discharge current (8/20s) (In)	20KA	20KA
Max. discharge current (8/20s) (Imax)	40KA	40KA
Voltage protection level (L-PE) (N-PE) (Up)	1.5KV	1.3KV
Response time (tA)	25nS	
Short-circuit withstand capability for max. mains side Overcurrent protection	50KA	
Temporary overvoltage (TOV) (UT) characteristic	335V / 5 sec. withstand	
Temporary overvoltage (TOV) (UT) characteristic	440V / 120min. safe failure	
Operating state / Fault indication	Green / Red	