



The Sollatek Switcher Range

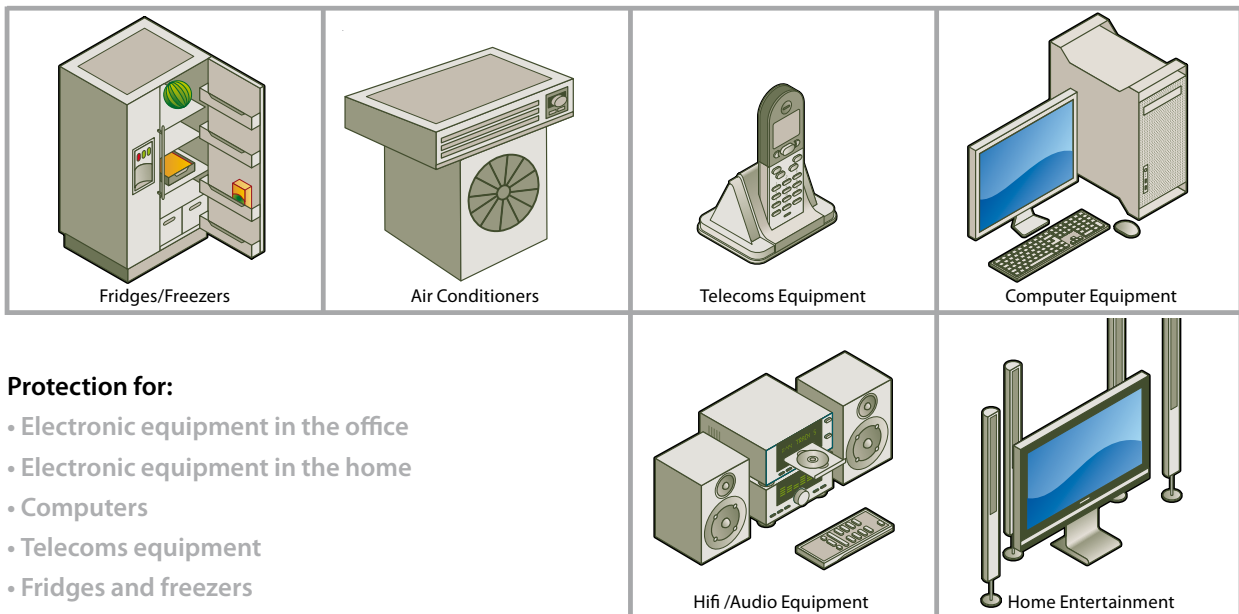
Protection for all electrical and electronic equipment



Voltshield™

The Sollatek Switcher Range

Protection for all electrical and electronic equipment



Protection for:

- Electronic equipment in the office
- Electronic equipment in the home
- Computers
- Telecoms equipment
- Fridges and freezers

The Sollatek Voltshield range of Switchers prevents damage to electrical and electronic equipment / appliances from power fluctuations, specifically over and under voltage levels of long duration.

When the mains power supply fluctuates outside pre-set tolerances (nominally 190V and 260V) the power to your equipment is disconnected by the Switcher. The Switcher then monitors the voltage for a short period to ensure the power has stabilised before re-connecting.

In addition, a start-up delay period provides protection against power-back surges commonly experienced after resumption of power in a power cut situation. Surge and spike protection is also incorporated to ensure protection.

For complete protection simply plug the Switcher into the mains and plug in your appliances.* Protection is automatic.

**Please note that some models in the Switcher range are direct wired.*

Main features and benefits

- Microprocessor controlled - high speed response.
- Solid State reliability - no moving parts.
- Fully automatic in operation - requires no user intervention.
- In- built start-up delay - protect against surges.
- Includes surge and spike protection as standard.
- Includes power-back surge protection as standard.
- 1250 Volts per second correction speed.
- High output correction accuracy (of +/-4%) exceeds EC standards.
- Quiet, unobtrusive operation.
- Warranty of 2 years. Sollatek provides full back up support on all its products, with local support in over twenty countries worldwide.

Single phase up to 5 Amps

HivoltGuard

Protection for all electrical and electronic appliances



Max power	5 amps
Wait time	30 seconds
Ideal for	TV, Video, Hi-fi, PABX, Fax machines and all electronic equipment up to 5 amps
Tip	Especially suitable for notebook computers, as on disconnection, the notebook's internal battery takes over, effectively functioning as a uninterruptible power supply (UPS)
Weight	250 gm
Dims	250 x 130 x 95 mm

5 AMPS ALL UP TO | 30 SECONDS START UP DELAY | TV, Video, Hi-fi, PABX, Fax machines, Laptop | High Voltage, Spikes/Surges, Power-Back Surges, Basic Lightning

TVGuard

Protection for TV • LCD/Plasma screens • Hi-fi/Media centres



Max power	5 amps
Wait time	30 seconds
Ideal for	TV, Video, Hi-fi, PABX, Fax machines and all electronic equipment up to 5 amps
Tip	To avoid frequent disconnection in areas of extreme fluctuation, add a stabiliser after the TVGuard
Weight	250 gm
Dims	250 x 130 x 95 mm

5 AMPS ALL UP TO | 30 SECONDS START UP DELAY | TV, Video, Hi-fi, PABX, Media centres | High Voltage, Spikes/Surges, Power-Back Surges, Basic Lightning

FridgeGuard

Protection for Fridges • Freezers • Coolers



Max power	5 amps
Wait time	90 seconds
Ideal for	Fridges and domestic freezers
Tip	Low voltage is particularly damaging to the compressor of fridges and freezers. 90 seconds wait for re-connection to allow for decompression of the compressor
Weight	250 gm
Dims	250 x 130 x 95 mm

5 AMPS ALL UP TO | 90 SECONDS START UP DELAY | Fridge, Freezer, Cooler | Low Voltage, Spikes/Surges, Power-Back Surges, Basic Lightning

VoltGuard

Protection for all electrical and electronic appliances



Max power	7 amps
Wait time	30 seconds
Ideal for	TV, Video, Hi-fi, PABX, Fax machines, Fridges and domestic freezers and all electronic equipment up to 7 amps
Tip	Covers all applications as it has over and under voltage protection
Weight	250 gm
Dims	250 x 130 x 95 mm

7 AMPS
ALL UP TO

30 SECONDS
START UP DELAY

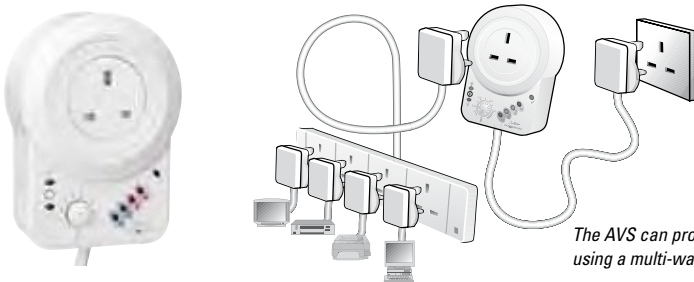
MICROPROCESSOR
CONTROL

TIMESAVE

Single phase 13 -22 Amps

Automatic Voltage Switcher (AVS13 APPLIANCE GUARD)

Protection for all electrical and electronic appliances



The AVS can protect a number of appliances, using a multi-way socket.

Max power	13 amps
Wait time	User adjustable from 15 seconds to 3 minutes
Ideal for	All electrical and electronic equipment
Tip	Can protect a number of appliances, using a multi-way socket
Weight	500 gm
Dims	230 x 134 x 54 mm

13 AMPS
ALL UP TO

ADJUSTABLE
START UP DELAY

MICROPROCESSOR
CONTROL

TIMESAVE

Automatic Voltage Switcher (AVS13 RL APPLIANCE GUARD)

+ RFI & lightning protection

Protection for all electrical and electronic appliances



Max power	13 amps
Wait Time	User adjustable from 10 seconds to 3 mins
Ideal For	All electrical and electronic equipment
Tip	Adds RFI & noise and lightning protection to the standard AVS13. Use this product if you are in area where lightning is a serious issue, or need to filter the power supply from RFI & noise
Weight	500 gm
Dims	230 x 134 x 54 mm

13 AMPS
ALL UP TO

ADJUSTABLE
START UP DELAY

MICROPROCESSOR
CONTROL

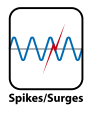
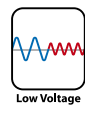
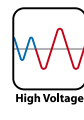
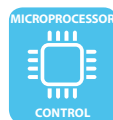
TIMESAVE

Automatic Voltage Switcher (AVS15 AIRCON GUARD)

Protection for Air conditioners • All electrical and electronic appliances



Max power	15 amps
Wait time	User adjustable from 2 minutes to 5 minutes
Ideal for	Air conditioners, large fridge/freezers
Tip	Rated at 15 amps for use with air-conditioners up to 17,500 B.T.U
Weight	500 gm
Dims	230 x 134 x 54 mm



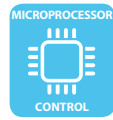
Single phase 30-100 Amps

Automatic Voltage Switcher (AVS30 APPLIANCE GUARD)

Protection for Air conditioners • Large fridge/freezers • Whole office • Direct wired equipment



Max power	30 amps
Wait time	User adjustable from 10 secs to 10 mins
Ideal for	Air-conditioners, large fridge/freezers, whole office, and complete circuits
Tip	Rated at 30 amps for use with air-conditioners. Direct wiring adds security of installation
Weight	600 gm
Dims	230 x 134 x 54 mm

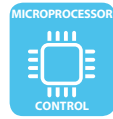


Automatic Voltage Switcher (AVS100 APPLIANCE GUARD)

Protection for Air conditioners • Large fridge/freezers • Whole office • Direct wired equipment



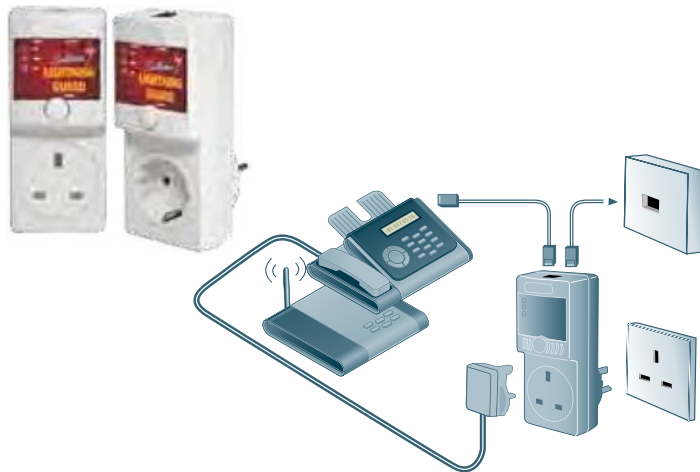
Max power	100 amps
Wait time	3 mins delay
Ideal for	Air-conditioners, large fridge/freezers, whole office
Tip	Rated at 100 amps for use with a number of air-conditioners and/or whole office or factory. Direct wiring adds security of installation
Weight	6 Kg
Dims	300 x 180 x 155 mm



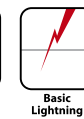
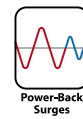
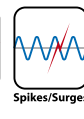
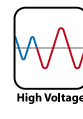
Single phase + telecom Up to 5 Amps

LightningGuard

Protection for Telecoms equipment • Internet • Broadband



Max power	5 amps
Mains surge/spike protection	160 Joules
Mains surge/spike discharge	6.5kA (8/20µs)
Wait time	30 secs
Data surge/spike discharge	>5kA
Ideal for	Modem, fax, telephone
Tip	Ideal for protection of computer data, internet, modems, fax machines and telephones. Lightning and mains surges and spikes can enter the telephones and cause damage to hardware and data.
Socket availability	Mains + telephone connection (RJ11)
Weight	300 gm
Dims	180 x 90 x 95 mm



Summary

TIMESAVE™ description*



The Voltshield has a built-in micro-processor which adds the advanced feature TimeSave™. TimeSave™ means that when the mains returns to normal, the Voltshield checks the duration of the OFF time. If the unit has been off for more than 3 minutes then it will reconnect the mains within 30 seconds rather than the standard 3 minutes. This means the Sollatek Voltshield will give you more vital working time than any other switcher!

The VOLTSHIELD features

- Protects and prolongs the useful life of electrical appliances
- Eliminates the need to switch off appliances every time the electricity fails
- Safeguards valuable electrical appliances at all times
- Very low cost protection in relation to the value of appliances
- Different models available including three phase units.

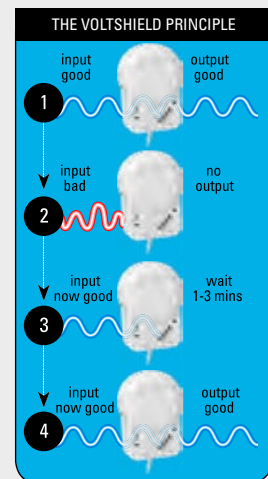
* Not all models have the TimeSave™ feature

The VOLTSHIELD principle

For complete protection simply plug the Voltshield into the mains and plug in your appliances. When the mains power supply fluctuates outside pre-set tolerances (nominally 190V and 260V) the power to your equipment is disconnected.

The Voltshield monitors the voltage for a short period to ensure the power has stabilised before re-connecting. In addition, the start-up delay provides protection against power-back surges commonly experienced after resumption of power in a power cut situation.

Surge and spike protection is also incorporated to ensure protection against these events which are very common. Surges and spikes are generated by lightning and nearby switching off and on of other equipment such as vacuum cleaners, pumps, motors, televisions, elevators etc.



Model		LightningGuard	FridgeGuard	HivoltGuard	TVGuard	VoltGuard
Current rating		5	5	5	5	7
Mains surge/spike response time		<10ns	<10ns	<10ns	<10ns	<10ns
Mains max spike/surge discharge		6.5kA >3kA (8/20µs surges)				
Spike protection		160J	160J	160J	160J	160J
Mains disconnect response time	Over-voltage	<20ms	N/A	<20ms	<20ms	<20ms
	Under-voltage	N/A	0.5 Sec	N/A	N/A	0.5 Sec
Reconnect wait		30 Sec	90 Sec	30 Sec	30 Sec	30 Sec
Over voltage disconnect	230V	265V	N/A	265V	265V	265V
	110V	130V	N/A	130V	130V	130V
Under voltage disconnect	230V	N/A	185V	N/A	N/A	185V
	110V	N/A	92V	N/A	N/A	92V
Dimensions	Unpacked	145 x 60 x 85mm	145 x 60 x 85 mm	145 x 60 x 85 mm	145 x 60 x 85 mm	145 x 60 x 85 mm
	Packed	250 x 130 x 95 mm	250 x 130 x 95 mm	250 x 130 x 95 mm	250 x 130 x 95 mm	250 x 130 x 95 mm
Data line protection		Yes	No	No	No	No
Socket availability		• UK13 • Schuko	• UK13	• UK13	• UK13	• UK13
		• 5A Indian	• Schuko	• Schuko	• Schuko	• Schuko
		• +telephone (RJ11)	• 5A Indian	• 5A Indian	• 5A Indian	• 5A Indian
Data line spike response time (LightningGuard)		<10ns	-	-	-	-
Data line discharge amps (LightningGuard)		>5kA	-	-	-	-

Model	AVS13	AVS13RL	AVS15	AVS30	AVS100	
Nominal voltage	230V	230V	230V	110V	230V	
Watts	3120	720	3600	3300	7200	
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	
LoadcCurrent (amps)	13	3	15	30	100	
Inrush current (20ms)	70 Amps	70 Amps	110 Amps	110 Amps	500 Amps	
Max consumption (milli Amps)	<100mA	<100mA	<100mA	<100mA	<100mA	
Wait time	15secs-3mins	15secs-3mins	15secs-3mins	10s - 10m plus manual	3 mins	
Over-voltage disconnect	265V	265V	265V	230V - 300V plus off	132V	
Over-voltage reconnect	263V	263V	263V	2V below HVD setting	128V	
Under-voltage disconnect	185V	185V	185V	150V - 230V	92V	
Under-voltage reconnect	190V	190V	190V	5V above LVD setting	95V	
Max supply	320V	320V	320V	160V	320V	
Spike / surge protection Joules	160	480	160	80	160	
	Amps	6500A (8/20us)	6500A (8/20us)	6500A (8/20us)	6500A (8/20us)	
Response	10 nanosecs	10 nanosecs	10 nanosecs	10 nanosecs	10 nanosecs	
Response time (over voltage)	<20 millisecc	<20 millisecc	<20 millisecc	<20 millisecc	<20 millisecc	
Response time (under voltage)	1 second	1 second	1 second	adjustable 05 - 10 seconds	1 second	
Brown-out response time	20 millisecc	20 millisecc	20 millisecc	20 millisecc	20 millisecc	
Approx packed weight	500 g	500 g	500 g	600 g	6.1 Kg	
Dimensions packed (mm)	H230 x W 134 x D 54			H 340 x W 200 x D 270		
Socket type	UK13amp	UK13amp	UK15amp	direct via brass screw terminal		

Power problems and their associated causes

All electrical and electronic equipment, connected to the mains supply is at risk of being damaged from spikes, surges, lightning, power cuts, brown-outs, power-cuts (blackouts), power back surges, and over-voltage. The following is a summary of the main types of power problems, causes and how these affect electrical and electronic equipment.



Pure, computer-grade power



Spikes/Surges

Spikes/Surge: Very short, (one millisecond) event of very high surge in voltage to thousands of volts and amps. Spikes are common in all parts of the world and repeated exposure to spikes will damage electronic equipment and corrupt data.

What causes it? Switching on/off of nearby equipment, lightning, motors starting etc.



RFI/Noise

RFI (Radio Frequency Interference)/Noise: High frequency disturbances that occur within a short period of time (milliseconds). RFI & noise are very common in all parts of the world and are the main cause of data corruption.

What causes it? Generated by high frequency noise from nearby equipment like TV, radio equipment, transmitters, mobile phones, switching on/off of certain loads, fluorescent lights, motor speed controls, light dimmers.



High Voltage

High/Over-Voltage: Long duration (milliseconds, seconds, minutes, hours or days) rise in the voltage above acceptable limits. Depending on the level of the over-voltage, the damage can be instantaneous, severe and irreparable.

What causes it? On return of mains supply after power cuts, under-sized utility oscillating between periods of brown-outs and over-voltage or accidental (e.g. accidental connection between two phases).



Low Voltage

Brown-Out / Under-Voltage: Long duration of low voltage (milliseconds to seconds, minutes, hours or days). Very common in parts of the world especially where the power utilities are over-stretched. Prolonged and frequent brownouts cause the equipment to malfunction or not work at all. Repeated episodes are certain to cause damage. Motors and compressors (and therefore fridges, freezers, coolers, air-conditioners and pumps) are especially at risk. In time, damage is certain.

What causes it? Most commonly an over-stretched utility, especially in areas of poor power distribution infra-structure and remote areas. Common in dry seasons where water is used for electricity generation.



Basic Lightning

Lightning: Direct or nearby strikes can cause minor problems or severe disturbances and damage. Lightning produces spikes/surges, over-voltage or power cuts.

What causes it? The surge is generated by either a direct hit, or indirectly striking underground or overhead lines and transmitting high surges to connected equipment in nearby buildings.



Power Cuts

Power-cuts: Common in every country in the world, especially in areas of frequent voltage problems. Sudden loss of power can cause damage ranging from corruption of data to mechanical faults as equipment is stopped while in operation.

What causes it? Power or sub station failure, breakdown in the distribution network, or simply a plug being pulled out accidentally.



Power-Back Surges

Power-Back Surges: These typically occur when power returns after a power-cut and connected equipment receives a surge of electricity at an over-voltage level, which can be very damaging (see above).

What causes it? Power back surges are created by the utility, when it restores supply at an above normal voltage in order to compensate for the demand as connected equipment re-starts simultaneously.



Telecom Surges

Telecom surges, spikes and lightning: Short term, high voltage and current phenomena occurring on the telephone lines. Can cause irreparable damage to any piece of equipment connected to the incoming line. The telephone line itself may even be damaged or destroyed in severe cases.

What causes it? Telecom spikes are caused by lightning striking either the telephone line directly or an object near it.

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TWO YEAR WORLDWIDE WARRANTY (subject to terms and conditions).