

USER INSTRUCTIONS



Voltshield

The Sollatek AVS30 Appliance Guard

Models covered:

AVS30

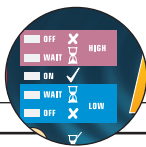
Important: This manual contains important safety instructions. Keep this manual handy for reference.

The AVS30 micro is a single phase Automatic Voltage Switcher rated at 30 Amps. The AVS30 will switch off the equipment connected to it if the mains power goes outside pre-set acceptable limits, and will reconnect automatically when the mains power returns to normal. Reconnection takes place after a delay, to ensure stability of the mains. The new version of the AVS30 has a built-in microprocessor that adds advanced features.



Loss of neutral is a serious common condition. In this event, the single phase voltage will then rise to the three phase level subjecting your equipment to >400V instead of 230V. This can be catastrophic for your appliance. To protect against this, the AVS30 can protect against temporary over voltage of 400V (TOV400).

Five LEDs accurately display the status of the AVS30 in the following symmetrical traffic light design:



LED Colour	Indicating	Load Status
Red	High incoming voltage	OFF
Yellow	AVS30 is in wait state after a high voltage transition	OFF
Green	Mains normal	ON
Yellow	AVS30 is in wait state after a low voltage transition	OFF
Red	Low incoming voltage	OFF

By adding microprocessor control to the AVS30, you can enjoy advanced functions which include:

- Variable time delay
- Variable Low voltage disconnect level
- Variable High voltage disconnect level
- Variable Blind time. Response time to under voltage disconnect
- Intelligent time delay

All these new features can be set at installation time.

- The AVS30 has a reset button on the front panel. This button will eliminate the delay time.
- 5 LEDs to indicate the state of the mains supply.



SPECIFICATIONS

Model AVS30 micro	110V	230V
Current (Amps)	30	30
Nominal voltage(V)	110	230
Wait time (mins)	10 secs to 10mins+manual	10 secs to 10mins+manual
Under-voltage disconnect(V)	75-110	150-230
Over-voltage disconnect(V)	110-150+off	230-300+off
Hysteresis(V)	3-5	3-5
Socket type	direct via brass screw terminal	direct via brass screw terminal
Fused plug	N/A	N/A
RFI protection	No	No
Transient suppression	Yes >6.5kA	Yes >6.5kA
Spike protection(I)	80	160

CONNECTION:

CAUTION: IF THE AVS30 IS ALREADY WIRED, MAKE SURE IT IS DISCONNECTED FROM THE MAINS BEFORE YOU DO ANY OF THE FOLLOWING;

1. Remove the bottom cover to obtain access to connection terminals. To remove bottom cover remove the two white caps and then undo the two screws.
2. Remove the two cable glands and then re-insert them so that the cable gland is external.
3. Insert cable from the mains supply through the cable glands of the AVS30 and connect to the connector terminals. (Refer to connection terminals layout diagram on next page).
4. Insert cable to appliance through the cord grip bush and connect to the connector terminals.
5. Tighten the cord grip bushes and return the front cover and two screws and screw caps.

PLEASE ENSURE NOT TO TIGHTEN CONNECTION TERMINALS EXCESSIVELY.

NOTES:

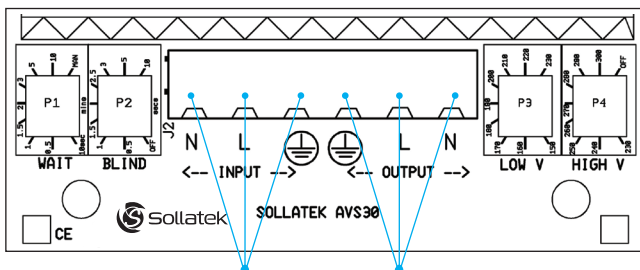
- In the upper compartment of the AVS30, you will find a fuse (see diagram overleaf). The fuse is not for the load. It is a spike protection fuse. Replace if it gets damaged. (0.5A Anti Surge). To gain access to the upper compartment, ENSURE THAT THE AVS30 IS NOT CONNECTED TO THE MAINS. Remove the screws from the back.
- The AVS30 must be mounted securely on a wall. Place it over one screw at the top and then use the two mounting holes in the terminal compartment.
- The supply to the AVS30 must be fitted with a 30A HBC fuse or less.



OPERATION

1. Make sure that your load does not exceed the rating of the AVS30 which is 30Amps.
2. The limits of the AVS30 as a standard are set for a window of 190-260 volts.
3. The AVS30 has to be wired to the mains supply and to the equipment it is supplying. Please refer to the wiring diagram below.
4. On first switching on, there will be no output for the wait time of approximately three minutes while the AVS30 monitors the mains.
 - a) To by-pass the wait time, press the re-set button on the front panel of the AVS30.
 - b) If a different wait time is required, then change the settings on potentiometer marked WAIT. Settings are available in increments up to 10 minutes. You can also set the WAIT dial to MAN. While on MAN the AVS30 will not reconnect the mains unless the Reset button is pressed. For that period the yellow LED indicates that the mains are within acceptable limits, after which the green LED goes on and the load is connected.
5. A different blind time can be set if a different under voltage disconnect limit is required. Under voltage blind time means the AVS30 ignores any undervoltage conditions during this time. The AVS30 will not switch off unless the under voltage last longer than the blind time.
6. It is recommended that the AVS30 is kept switched on, and the appliance switched on and off to prevent activating the time delay every time the appliance is switched on.

AVS30 CONNECTION TERMINALS LAYOUT



AVS30 INPUT

L (Live) to L
N (Neutral) to N
E (Earth) to E

AVS30 OUTPUT

L (Live) to L out
N (Neutral) to N out
E (Earth) to E out if used





Liability of the Company

- (a) The Company shall not be liable, either in contract or in tort for any loss, injury or damage of whatsoever nature or to whomsoever or by whatsoever cause arising directly or indirectly from any defect in the Goods (whether latent or apparent) or as a result of the use of the Goods (save and except any liability for death of or injury to any person resulting directly from the negligence of the Company) and the Customer shall fully indemnify the Company against all claims and demands made upon the Company by reason of any such loss or injury or damage.
- (b) Without prejudice to the provisions of the immediately preceding sub clause the Company shall not in any event be liable for consequential or indirect loss or damage howsoever arising under the Contract or in relation to the Goods.
- (c) The Customer hereby acknowledges that the restrictions in this clause are fair and reasonable in the circumstances.

Warranty

Unless otherwise agreed with the Company or where the Company has notified the Customer of special terms in respect of specified categories of goods the Company agrees at its option either to refund the cost of or repair or replace goods proved to the Company's reasonable satisfaction to have failed under proper storage and use within 24 months of delivery by reason of defects due to faulty design (other than any design made, furnished or specified by the Customer) materials or workmanship provided that:

- (a) The Customer shall have followed any instruction issued by the Company in relation to the goods and their storage;
- (b) In the case of defects which would have been apparent to the Customer on reasonable examination of the goods on delivery, 'the' Customer shall notify the Company of the defects within 14 days of delivery;
- (c) In the case of any other defects the Customer shall notify the Company of the defects in writing within 7 working days of the date when the defect becomes apparent;
- (d) Where in discharge of its obligation under this clause the Company agrees that the Customer may undertake any repair work on its behalf the cost of such work shall be agreed in writing between the Customer and the Company before the commencement of such work.

Return of Goods

- (a) Goods supplied in accordance with the Customer's orders cannot be accepted for return without the prior written consent of the Company and in accordance with the Company's returns procedure.
- (b) The Company reserves the right to levy a handling, administration or other charge of such amount as it, in its absolute discretion, decides and may deduct this from any credit allowed unless the reason for any return by the Customer is due to any fault or breach of these Conditions on the part of the Company.
- (c) Returned Goods must be sent carriage paid at the Customer's risk to the Company's trading premises or to such other address as the Company may direct.
- (d) The Company will not allow credit in respect of returned goods not in fully re-saleable condition.



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AVS30 Micro Controlled Instruction Manual

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