

3+3 Automatic Transfer Switch

Instructions for installation & use

Applies to the following models:

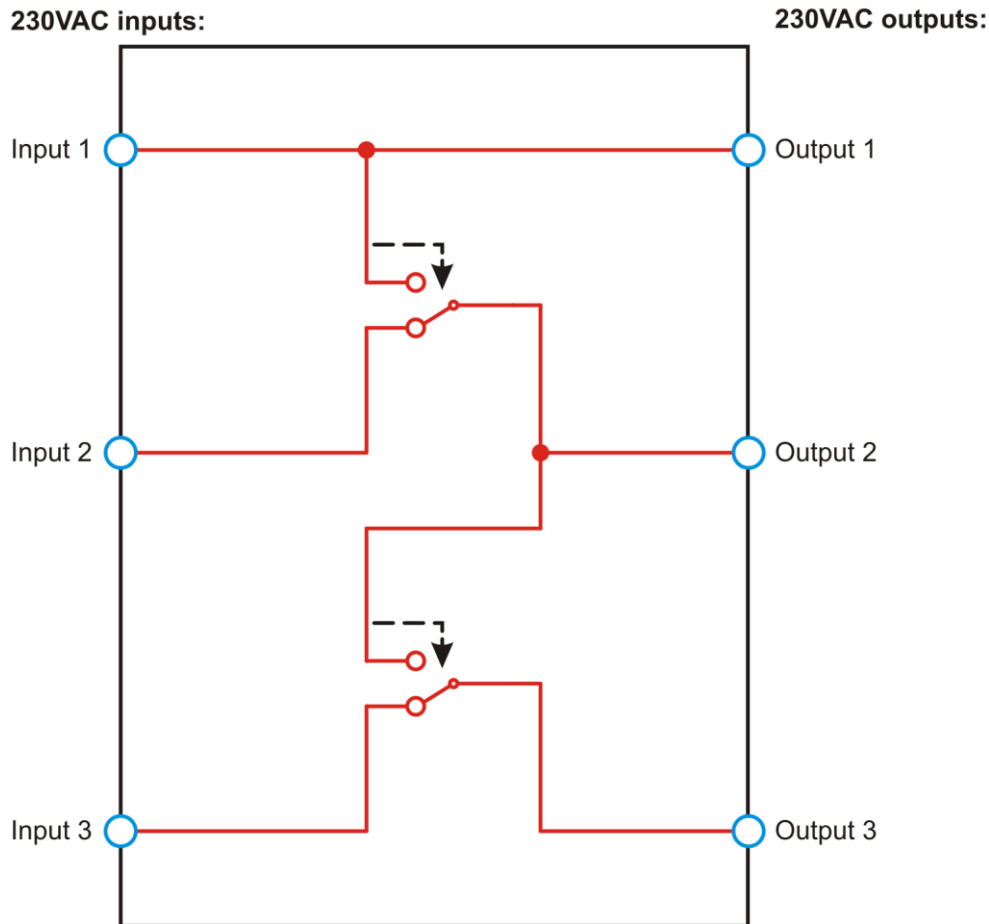
Part no.	System voltage	Max current	Number of inputs	Number of outputs	Dimensions (Not including protrusions)
90097	230VAC	20amps	3	3	254mm(L) x 180mm(W) x 111mm(HT)



Please note this is a picture of a 2 in, 2 out. 3+3 has 3 blue sockets, 3 white sockets

System overview

The transfer switch has 3 inputs & 3 outputs, as represented schematically below:



The transfer switch prioritises the inputs in the following order: input 1, then input 2, then input 3. This means that, of those inputs that are present, the input with the highest priority is selected.

Output 1 is supplied directly from input 1, for convenience, & is often used to power a battery charger when input 1 is an incoming mains supply.

Output 2 is powered from either input 1 or 2. Input 3 does not feed this output.

Output 3 is powered from any of the three inputs; of those inputs that are present, the input with the highest priority is selected.

Critical loads, requiring backup should the primary power fail (input 1), would normally be connected to output 3, with the backup power sources supplying inputs 2 & 3.

Installation

The transfer switch must be located in a dry area, not subject to spray or water exposure. Remove the cover to expose the unit mounting holes, ensuring that power is not connected whilst the cover is off.

Mating plugs are supplied with the unit; the blue plugs are for the input sockets & the grey plugs are for the outputs.

The plugs are marked with L, N & earth symbols and should be wired as follows:

- live conductor (brown) to the L terminal
- neutral conductor (blue) to the N terminal
- earth conductor (green/yellow) to the terminal marked E or marked with the earth symbol.

Never apply power to the unit while the access cover is removed.

The maximum current that may pass through the unit is 20amps, & the sources of supply should incorporate protection devices (fuses or MCB's) to disconnect if this rating is exceeded. The trip current of these devices should also be selected protect the installation wiring, which may require devices of lower current rating than 20amps.

(OPTIONAL) 90093



3+3 Protection Module

Three combined RCD/MCB's are mounted in an enclosure; the three power sources should be wired directly to the RCD/MCB's in the enclosure. The protected side of each RCD/MCB should then be wired directly to the transfer switch as detailed above.

RCD/MCB Specification:

Operating Voltage: 230/110V AC

Max Current: 20A

Leakage Protection: 30mA

Operating Temperature: -10 to 45°C

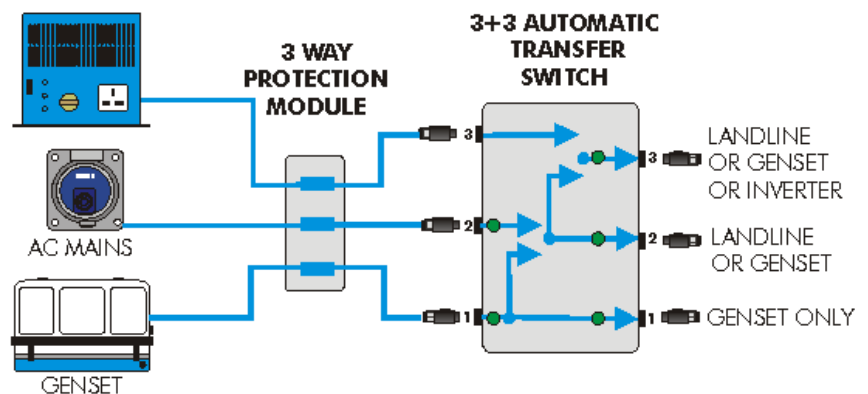
Enclosure

Environmental: IP20

The enclosure features 'knock-out' glands to pass cable through. It is recommended that cable glands are used.

The unit is designed to be panel mounted using the 4 screw points on the back surface of the unit.

NOTE: The RCD part of the protection module relies on a bonded supply. Failure to use a bonded supply will cause the device not to detect leakage current. In this case only the MCB will be active. Please refer to relevant wiring regulations for further information.



User information

The connectors on the transfer switch are not intended to be used to regularly connect & disconnect load equipment & power sources. Following installation, they would normally be left connected. The connectors provide for ease of maintenance & also allow output 2 or output 3 loads to be temporarily moved to output 1 should the need arise.

Green indicator lamps adjacent to each connector show that power is present on their associated connectors.

WARNING: Never rely on these lamps to indicate power present if the unit cover is to be removed – always remove all plugs from the unit to ensure that there are no exposed hazardous voltages.

The unit is fully automatic in operation, so no user intervention is required.

Copies of this manual

Electronic copies of this manual are available from the technical support section of our website:

<http://www.antares.co.uk>

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