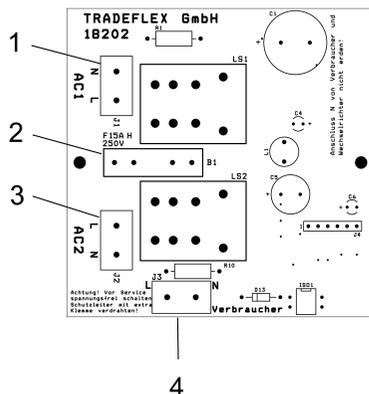


## Installation

The installation must be carried out by a qualified professional. Wiring is to be done in accordance with the corresponding regulations. The Loads (Verbraucher) and the two power source (AC1 and AC2) connections are on screw terminals inside the IP55 rated enclosure. The protective earth (PE) wires must be connected together in a separate screw terminal (provided in the box). If the connected inverter does not have an earth connection, the battery pole, which is earthed, must be connected together with the protective earth of the mains and load.

**Attention!!! The neutral (N) wiring of the load MUST NOT be connected with the protective earth!!!**



1. 230V secondary input AC1
2. Fuse, 250V/15A
3. 230V primary input AC2
4. 230Vac loads output

## Specifications

Nominal voltage:	230 V AC ~ 50 Hz
Contacts:	max. 230 V AC ~ 50 Hz
Switch-over time:	less than 1 sec (but not uninterrupted nor synchronised)
Max. current:	12 A
Max. output power:	2.760 VA
Dimensions (L × W × H):	130 × 130 × 60 mm
Weight:	300 g

Subject to alteration

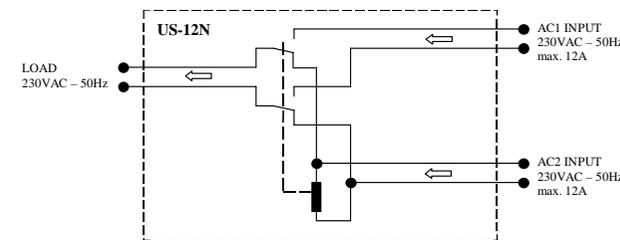
## US-12N Bypass station 230Vac /12A

Dear Customer,

Thank you for buying our product. Please make sure to read this manual carefully before putting the unit into operation.

### Description

The US-12N microprocessor-controlled automatic transfer switch has two 230Vac inputs (AC1 and AC2) for two different power sources (mains, inverter, generator, etc.). As default, the 230Vac loads are supplied from the power source which is connected to the AC2 input. When this power source is no longer available (power failure, inverter deep-discharge disconnection, etc.), the loads are transferred automatically and safely to the AC1 power source.



**Mobile applications:** while on the road (car, campers, caravans, boats, etc.), your 230Vac loads on board can be fed by the inverter which converts your battery voltage into 230V / 50Hz. Whenever there is utility voltage available near your vehicle (e.g. campsite), simply plug in, your US-12N device will detect the mains voltage at its input and it automatically switches the load over to the mains. No need for re-cabling and disconnecting your whole inverter system (Mains: AC2; Inverter: AC1)

**Stationary applications:** the US-12N bypass station can also be used in conjunction with an inverter and batteries as part of a UPS (uninterrupted power supply) system. The loads are fed by the 230Vac mains voltage which, in case of a black-out, are transferred automatically to the inverter's output (Mains: AC2; Inverter: AC1) In some applications where there is a stand-alone solar or wind system with available mains supply, one can choose to use up the energy stored in the batteries first and when the inverter disconnects due to low battery voltage (LVD), the US-12N switch transfers the loads to the mains (Mains: AC1; Inverter: AC2)

### ATTENTION! Important safety instructions!

- This unit operates from 230V alternating current, which is dangerous for human life and health if touched and must be kept away from children!
- The unit can only be connected to 230V / 50-60Hz.
- Under no circumstances should the output neutral-connector be earthed!
- Operation under extreme conditions must be avoided, such as: in temperatures above 40°C, inflammable gas, solvents, vapour, dust, humidity over 80% non condensing, etc.)
- The unit must be kept and operated in closed, dry area.
- As soon as you assume that safe operation of the unit is no longer possible, unplug it immediately and make sure that it cannot be switched back by somebody else. Operation has become unsafe when the unit does not show any signs of working or has been visibly damaged under transportation or after storing the unit in unfavourable conditions.
- Before connecting the unit, please make sure that the inverter's output and the mains supply is switched off!
- Service and repair may only be carried out by authorized and qualified personnel.
- Check that the wires are fitted firmly as loose contacts can cause fire!
- Please note that many 230Vac household appliances actually have higher power consumption than the value stated on their data plate.
- The cross section of the wiring shall be chosen and secured in accordance with the relevant regulations.
- The device must not be used for 3-phase current.