

Electronic systems for leisure caravans

Power - control - display



Technical Information 08-2006 (NL200600804)

OVP 01 – 230V – overvoltage protection

Page 1 of 2

Have a safe trip!

In recent years there has been an increasing number of faults caused by overvoltage in devices operating on the main power system in motorhomes and caravans.

In a motorhome almost all consumers are now supplied via the 12V onboard power supply.

Typical 230V devices are usually the 12V charging system (electronic block) and the refrigerator.

In 12V charging systems the charging module is affected by the overvoltage.

This is particularly problematic as then neither mains operation nor battery charging is possible.

The typical causes of mains overvoltage are:

- lightning strikes into the public power supply
- generator operation (in small emergency power generators or on ferries or overshooting the voltage during start-up)
- poor electric installations on camping sites, particularly in Southern Europe, where long, often retrofitted cables and poorly contacted neutral wires lead to overvoltage by shifting the neutral point.

Although our devices are robust and operate smoothly for hours in tests at 300V, they can occasionally fail due to overvoltage.

For this reason Schaudt GmbH has developed the overvoltage protection

OVP 01 Art.-No. 922.220

This device is connected between the power connection and the Schaudt GmbH device to be protected. It has been designed for situations where the risk of overvoltage is particularly high, e.g. mains operations when travelling abroad, especially in non-EU countries. This device essentially increases the level of operating safety of the devices to which it is connected. (It is possible to connect devices from other manufacturers, but please check to ensure that the switch on and switch off specifications and the maximum output of the OVP 01 are compatible with the device to be connected.)

If overvoltage occurs, within milliseconds the OVP 01 disconnects the connected devices from the 230V for approximately 1.5 seconds. If there is another overvoltage during this time, or if the overvoltage continues, the connected devices are switched off until the power supply has returned to normal.

If the motorhome is connected to a power supply that is too great or too low from the outset, the OVP 01 will not connect them to the 230V supply.

The battery supply in autarkic vehicles such as motorhomes and autarkic caravans means briefly switching off the mains power has no effect and is usually not even noticed.

In caravans without a battery, a power cut, usually very brief, is ultimately better than a faulty device.

The OVP 01 will be available as of November 2006.



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Page 2 of 2

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Currently available information:

NL20060804 OVP 01 – 230V – overvoltage protection

(August 2006)

NL20060512 Installation of AC converters

(May 2006)