



Item no. 322/414
Manufacturer's no. 3244



Battery Charger VBCS Triple, 30 A



Information

Dimensions	256x85x219 mm
Pack size	32.6x22.8x9.1 cm
Net weight	2.85 kg
Gross weight	3.14 kg

Fully automatic battery charger with 3 charging sources for optimum battery charging in mains, driving and solar operation, designed for motorhomes, special vehicles, etc.

Mains operation, standby operation at the external socket from the mains: The full charging power in the universal wide range of 110 V AC – 230 V AC without switching is available worldwide even with large deviations in the mains supply (undervoltage/overvoltage, sine wave, frequency). Powerful charging of the RV battery and supply of the 12 V consumers from the mains. Auxiliary charging branch 12 V/4 – 5 A for supporting and maintaining the charge of the vehicle (lead) starter battery during long downtimes. Thanks to the long-term charging characteristics, the device can be permanently connected to the mains (use, winter break).

Charging converter, „B2B“ operation, mobile operation from alternator and starter battery (battery to battery): The powerful charging converter (booster) enables the RV battery to be fully charged while travelling. It increases/reduces the voltage to the required level in order to charge the RV battery precisely with the optimum charging characteristic. It fully compensates for line losses and significant voltage fluctuations in the alternator, such as those that constantly occur in Euro 6 vehicles. The supplied 12 V

Specifications

Continuous output	520 W
IP protection class	IP21
Charging current	30 A
Nominal voltage	12 V
Type	VBCS 45/30/350 Triple CI

consumers are protected against overvoltage and voltage fluctuations.

Solar operation, „MPP“ (Maximum Power Point):

With MPP technology, the controller automatically determines the maximum power output (MPP) of the solar panels several times per second. The additional charging current gain of 10% to 30% ensures shorter charging times and the best possible power utilisation of the solar system. Auxiliary charging branch for support charging and charge retention of the vehicle starter battery during long downtimes. „AES“ switching output, automatically switches refrigerators with „AES“ (Automatic Energy Selector, Electrolux/Dometic) from gas to 12 V operation when there is a permanent surplus of solar power.

Pulser operation, training for the RV battery during charging breaks when no charging source is available:

Battery training protects the unused (lead) battery from rapid ageing and failure due to sulphation during wintering, seasonal operation or longer breaks.

Other device features:

The charging voltage is free from peaks and regulated in such a way that the batteries cannot be overcharged.

Fully automatic continuous operation: The charger can be permanently connected to the batteries and keeps them fully charged. If no charging source is available (power failure, engine stop, night), the batteries are not discharged.

Parallel and buffer operation: The battery continues to be charged or is kept fully charged in the event of simultaneous consumption. The charger automatically calculates and monitors the adjustment of the charging times.

Monitoring-free charging: Protection against overload, overheating, overvoltage, short circuit, misbehaviour and battery back-discharge through electronic cut-off up to complete disconnection of charger and battery.

Power supply function: Enables consumers to be supplied without a battery (e.g. when changing the battery).

Built-in on-board mains filter: Problem-free parallel operation with other charging sources (wind, motor and fuel generators) on one battery.

Charging cable compensation: Voltage losses on the charging cables are automatically compensated for.

Connection for battery temperature sensor (included):

With lead batteries (acid, gel, AGM), the charging voltage is automatically adjusted to the battery temperature, resulting in a better full charge of the weaker battery in cold weather and avoiding unnecessary battery gassing in summer temperatures.

LiFePO₄ batteries: Battery protection at high and especially at low temperatures < 0 °C. Highly recommended if the battery temperature can fall below 0 °C during operation.

Automatic lead battery regeneration twice a week during downtimes to prevent harmful acid stratification.

Charging aid for deeply discharged lead batteries:

Gentle pre-charging of the (lead-acid, -gel, -AGM) battery up to 8 V, then powerful support for the battery if consumers

are still switched on. Plug-in connection for optional LCD Charge Control S.

Charging programmes

1 „Gel“: Charging programme for gel batteries, characteristic curve IU1oU2oU3: Designed for sealed, gas-tight gel/dryfit batteries with fixed electrolyte, which generally require a higher charging voltage level and longer U1 holding times in order to achieve short charging times with particularly high capacity storage and to avoid long-term battery „starvation“.

2 „AGM“: Charging programme for AGM/fleece batteries, characteristic curve IU1oU2oU3: Intended for charging sealed, gas-tight AGM (Absorbent Glass Mat) batteries in lead-fleece technology, which require a particularly high U1 level with coordinated holding times for full charging and then a moderate U2 level for charge retention (plate and round cell technology).

3 „DIN 0510“ charging programme for lead-acid/wet batteries, characteristic curve IU1oU2oU3: General DIN characteristic curve for charging and charge retention of open and closed lead-acid batteries with removable cell plugs and the option of acid level control and acid level correction (maintenance). Also applicable for closed batteries low-maintenance, maintenance-free, low antimony, silver-alloyed, calcium etc. with low or very low water consumption. Offers short charging times, a high charge factor and high acid mixing with a high U1 level, even in stationary use (acid stratification) for „wet“ traction, lighting, solar, heavy duty and standard batteries.

4 „UNIVERSAL“: Charging programme for lead-acid/wet/AGM batteries, characteristic curve IU1oU2oU3: Universal programme for charging and maintaining the charge of acid batteries in vehicles (mixed mobile/stationary). With a medium U1 level, still offers short charging times, a good charge factor and good acid mixing for open and closed, low-maintenance, maintenance-free standard, traction, lighting, solar and heavy-duty batteries as well as for AGM batteries with a normal U1 level.

Li „LiFePO₄“: Charging programme for lithium batteries, characteristic curve IU1oU2oU3: Charging programme tailored to lithium LiFePO₄ batteries with their own BMS and mandatory or built-in protective circuitry. A special rest maintenance function automatically keeps the LiFePO₄ battery at a charge level of 50 – 80% when the vehicle is switched off (seasonal operation), which is beneficial for its service life, and also buffers 12 V consumers and the vehicle starter battery. In addition, a regular auto-wake-up function activates battery cell balancing.

Scope of delivery: mains cable, temperature sensor, manual