

Centaur Charger

www.victronenergy.com



Centaur
Battery Charger 24 30i

Quality without compromise

Aluminium epoxy powder coated cases with drip shield and stainless steel fixings withstand the rigors of an adverse environment: heat, humidity and salt air. Circuit boards are protected with an acrylic coating for maximum corrosion resistance. Temperature sensors ensure that power components will always operate within specified limits, if needed by automatic reduction of output current under extreme environmental conditions.

Universal 90-265V AC input voltage range and also suitable for DC supply (AC-DC and DC-DC operation)

All models will operate without any adjustment needed over a 90 to 265 Volt input voltage range, whether 50 Hz or 60 Hz.

The chargers also accept a 90-400 V DC supply.

Three outputs that each can supply the full output current

Three isolated outputs to simultaneously charge 3 battery banks. Each output is capable to supply the full rated current.

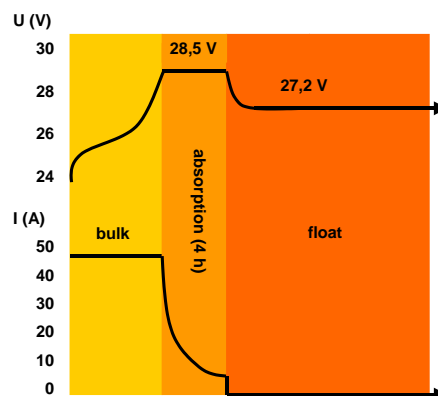
Three-stage charging, with temperature compensation

The Centaur charges at bulk rate until the output has reduced to 70% of the rated Amps, at which a 4 hour timer begins. After the timed period the charger switches to float rate. An internal temperature sensor is used to compensate the charge voltage with $-2 \text{ mV}/^{\circ}\text{C}$ ($-1 \text{ mV}/^{\circ}\text{F}$) per cell. A DIP switch is available to select the optimum charge/float voltages for Flooded Lead-acid, Gel or AGM batteries.

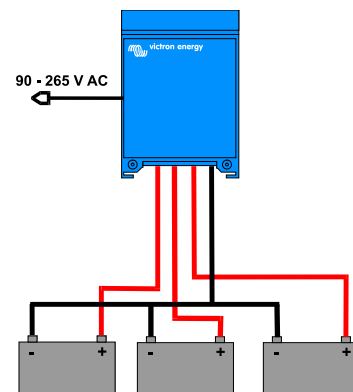
Learn more about batteries and battery charging

To learn more about batteries and charging batteries (including the pro's and cons of multi-bank charging and intelligent charging), please refer to our book 'Electricity on Board' (available free of charge from Victron Energy and downloadable from www.victronenergy.com).

Charge curve



Application example



| Centaur Charger | 12/20 | 12/30 24/16 | 12/40 | 12/50 | 12/60 24/30 | 12/80 24/40 | 12/100 24/60 |
|------------------------------------|---|-----------------------|-----------|-----------|------------------------|------------------------|-------------------------|
| Input voltage (V AC) | 90 – 265 | | | | | | |
| Input voltage (V DC) | 90 – 400 | | | | | | |
| Input frequency (Hz) | 45 – 65 | | | | | | |
| Power factor | 1 | | | | | | |
| Charge voltage 'absorption' (V DC) | 14,3 / 28,5 (1) | | | | | | |
| Charge voltage 'float' (V DC) | 13,5 / 27,0 (1) | | | | | | |
| Output banks | 3 | | | | | | |
| Charge current (A) (2) | 20 | 30 / 16 | 40 | 50 | 60 / 30 | 80 / 40 | 100 / 60 |
| Total output ammeter | Yes | | | | | | |
| Charge characteristic | IUoU (Three stage charging) | | | | | | |
| Recommended battery capacity (Ah) | 80 - 200 | 120 - 300 45 - 150 | 160 - 400 | 200 - 500 | 240 - 600 120 - 300 | 320 - 800 160 - 400 | 400 - 1000 240 - 600 |
| Temperature sensor | Internal, - 2mV / °C (- 1mV / °F) per cell | | | | | | |
| Forced cooling | Yes, temperature and current controlled fan | | | | | | |
| Protection | Output short circuit, over temperature | | | | | | |
| Operating temp. range | - 20 to 60°C (0 - 140°F) | | | | | | |
| Ignition protected | Yes | | | | | | |
| Humidity (non condensing) | max 95% | | | | | | |

ENCLOSURE

| | | | | | | | |
|--|---------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|
| Material & Colour | aluminium (blue RAL 5012) | | | | | | |
| Battery-connection | M6 studs | M6 studs | M8 studs | M8 studs | M8 studs | M8 studs | M8 studs |
| AC-connection | screw-clamp 4 mm ² (AWG 6) | | | | | | |
| Protection category | IP 20 | | | | | | |
| Weight kg (lbs) | 3,8 (8.4) | 3,8 (8.4) | 5 (11) | 5 (11) | 5 (11) | 12 (26) | 12 (26) |
| Dimensions hwxwd in mm (hwxwd in inches) | 355x215x110 (14.0x8.5x4.3) | 355x215x110 (14.0x8.5x4.3) | 426x239x135 (16.8x9.4x5.3) | 426x239x135 (16.8x9.4x5.3) | 426x239x135 (16.8x9.4x5.3) | 505x255x130 (19.9x10.0x5.2) | 505x255x130 (19.9x10.0x5.2) |

STANDARDS

| | | | | | | | |
|----------------------|------------------------------------|--|--|--|--|--|--|
| Safety | EN 60335-1, EN 60335-2-29, UL 1236 | | | | | | |
| Emission Immunity | EN 55014-1, EN 61000-3-2 | | | | | | |
| Automotive Directive | EN 55014-2, EN 61000-3-3 | | | | | | |

1) Standard setting. Optimum charge/float voltages for Flooded Lead-acid, Gel-Cell or AGM batteries selectable by DIP switch.

2) Up to 40°C (100°F) ambient. Output will reduce to approximately 80% of nominal at 50°C (120°F) and 60% of nominal at 60°C (140°F).



BMV-700 Battery Monitor

The BMV-700 Battery Monitor features an advanced microprocessor control system combined with high resolution measuring systems for battery voltage and charge/discharge current. Besides this, the software includes complex calculation algorithms, like Peukert's formula, to exactly determine the state of charge of the battery. The BMV-700 selectively displays battery voltage, current, consumed Ah or time to go.



Battery Alarm

An excessively high or low battery voltage is indicated by an audible and visual alarm.

Installation made easy

1. Fasten the separate mounting plate (A) to the wall where you want to place the battery charger, and simply hook up the Centaur.
2. Secure the bottom of the backside (B) to the wall.

