AC-DC battery chargers









Bluetooth







CAN-BUS interface









Silent operating

CRISTEC is the only manufacturer offering chargers up to 12V 60A with natural convection (without fan). This advantage gives the YPOWER+ chargers a completely silent operation and an optimized lifespan. It is therefore possible to install them anywhere on board, including under a berth.



3 or 4 independent outputs depending of models

The YPOWER+ chargers are the only chargers having up to 4 independent and non-limited outputs.



Low energy bluetooth

The YPOWER+ chargers are equipped with a Bluetooth Low Energy (BLE), variant of "classic" Bluetooth. The major advantage of BLE is its low power consumption as it consumes half of a classic Bluetooth.



Thermal withstand

Chargers have full charge up to $+40^{\circ}$ C for entry models and $+60^{\circ}$ C (140° F) for others with no loss.



Ignition protected

All models can be installed in the engine room thanks to ISO8846 compliance which protects against ignition of flammable gases.



Worldwide use

Automatic detection of power supply network, from 90 to 265VAC and from 47 to 65Hz. You do not have to care about the AC power grid or genset voltage.



5-stage charging profile

- Boost: charges batteries to 80% of full charge
- **Absorption**: slowly completes remaining charge to 100%
- **Floating**: maintains battery charge
- Automatic refresh: prevents sulphation and revitalizes batteries, selectable by keypad pushbutton
- Reboost: new automatic Boost phase if DC consumers and the state of batteries so require.

A regulated DC power-supply mode is also available and YPOWER+ chargers can also be used as high-voltage DC-DC converters with input ranging from 121 to 375VDC.



Easy connection

Plug & Play connection, secure, simple and fast without opening the charger. AC and DC connectors are included.



Adaptative charging

Custom-made and simultaneous recharge of 3 or 4 battery banks.

YPOWER+ chargers can be connected to various types of batteries simultanously:

- Opened classic lead
- Sealed, gel or AGM
- Spiral sealed



Lithium Iron Phosphate (LiFePO4) with BMS. Selection of your technology of battery is easy thanks to the front keypad.



Remote control

The chargers are fitted with a CAN-Bus and a Bluetooth interface as standard.



Connection to an NMEA network is also available through an optional adaptor, refer to charger's options page.

AC-DC BATTERY CHARGERS YPOWER+







| Part Number | YPO12-20STPL | YPO12-30STPL | YPO12-40STPL | YPO12-60STPL | |
|--|---|------------------------------------|---|-------------------|--|
| Model | 12V/20A | 12V/30A | 12V-40A | 12V-60A | |
| Recommended battery bank** | 100-200Ah | 200-300Ah | 300-500Ah | 500-700Ah | |
| Input | | | | | |
| AC Voltage | From 90 to 265VAC single-phase automatic | | | | |
| DC Voltage | From 121 to 375VDC | | | | |
| Frequency | From 47 to 65Hz automatic | | | | |
| Current consumed 230/115VAC | 1.3/2.6A | 2/4A | 2.7/5.6A | 4.4/8.7A | |
| Recommended power for a generator | 450W | 650W | 700W | 1050W | |
| Power factor | 1 | | | | |
| Efficiency | 92.8% in 230VAC & 91% in 115VAC | | | | |
| Input fuse | T6.3A/250V | | T15A/250V | | |
| Output | | | | | |
| Number of battery banks | 3 separate positive terminals: +BAT E, +BAT 1 and +BAT 2 (integrated MOSFET splitter) 1 negative terminal: -BAT Each bank can be used individually and delivers the rated current | | 4 separate positive terminals: +BAT E, +BAT 1, +BAT 2 and +BAT 3 (integrated MOSFET splitter) 1 negative terminal: -BAT Each bank can be used individually and delivers the rated current | | |
| Nominal current (+/-7%) @ rated power | 20A/276W | 30A/356W | 40A/570W | 60A/855W | |
| Charging curve | Charging curve s | election by push-button, Bluetooth | poth or CAN-Bus (Boost, Absorption, Floating and Refresh) | | |
| Battery type | Sealed lead, Gel, AGM as factory setting - calcium lead, LiFePO4, DC power-supply mode, etc. Specific request on demand | | | | |
| Boost voltage for sealed lead battery (factory setting) | 14.4VDC | | | | |
| Floating voltage for sealed lead battery (factory setting) | 13.8VDC | | | | |
| Peak to peak ripple and noise | < 2% (at rated conditions) | | | | |
| Automotive fuses mounted in series in minus pole -BAT | 1 x 30A/32V | 2 x 30A/32V | 3 x 30A/32V | 4 x 30A/32V | |
| Environment | | | | | |
| Cooling | Natural (fanless) | | | | |
| Sound level | 0 dB | | | | |
| Operating T° at 230VAC | From -20°C to +60°C (-4°F to +140°F) | | | | |
| Derating (rated charge) | from 40°C (140°F) | from 40°C (104°F) | from 60°C (140°F) | from 60°C (140°F) | |
| Storage T° | From -20°C to +70°C (-4°F to +158°F) | | | | |
| Relative humidity | up to 70% (95% without condensation) | | | | |
| Bluetooth | Low energy bluetooth (BLE) - Power: +9dBm (frequency: 2412-2484MHz) | | | | |
| Casing | | | | | |
| Material | Aluminium sink frame and clasp / Thermoplastic body | | | | |
| Dimensions (length, height, depth) | 238 x 181 x 81mm (9.4 x 7.1 x 3.2 in) | | 289 x 197 x 105mm (11.4 x 7.8 x 4.1 in) | | |
| Weight | 2kg (4.4 lb) | | 3.5kg (6.6 lb) | 3.7kg (6.7 lb) | |
| Fixing center distance | 219 x 155mm (8.6 x 6.1 in) | | 272 x 170mm (10.7 x 6.7 in) | | |
| Fixing screw (wall) | 4 M5 round head screws | | | | |
| Protection factor | IP34 (electronic) & IP22 (connections) | | | | |
| Electronic card protection | Sealed casing Water-repellent varnish (marine environment) | | | | |
| Standards | A 400 | | | | |
| CE declaration of conformity | Available on request | | | | |
| CE / EMC | EN61204-3 | | | | |
| CE / Security | EN60335-2-29, ISO8846 | | | | |

 $Against \ transient \ input \ overvoltage \ by \ varistor \ (Not \ covered \ by \ warranty) \ / \ Against \ output \ polarity \ reversal \ by \ removable \ fuses \ / \ Against \ short-circuits \ and \ output \ overloads \ / \ Against \ abnormal \ overheating$

Communication

CAN-Bus / Bluetooth

Options

Temperature probe & OTD probe (Over Temperature Device)

 $^{^*} Included AC and DC connectors for item codes containing \\ \text{``ST"} = ST \\ \text{and ard (except item codes containing } \\ \text{``OE"} - Original Equipment)$

^{**} Overall battery capacity recommended for lead-type batteries, C/10. For Lithium batteries, C/3, consult us if needed.

