



**CRISTEC**  
on-board energy



- Silent
- High temperature performance
- Plug & play : easy connection
- CAN-BUS interface
- Automatic and Autonomous
- Remote touch-screen control panel

# Innovative automatic battery chargers **YPOWER RANGE**



[www.cristec.fr](http://www.cristec.fr)

# Innovative battery chargers

## YPOWER RANGE



AC input



DC output

## OPTIMAL MADE-TO-MEASURE CHARGING FOR A LONGER BATTERY LIFE

Founded in 1983, CRISTEC - CReation, Innovation Scientific and TEChnical - specializes in energy conversion.

CRISTEC offers expertise on an international scale with a distribution network present in more than 50 countries.

CRISTEC is proud to offer you the assets of its fifth generation HF charger range, YPOWER, having already sold more than 150,000 units throughout the world.



### PLUG & PLAY CONNECTORS

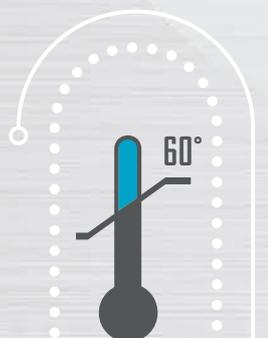
QUICK, RELIABLE AND FRIENDLY MOUNTING CHARGER TO BE LOCATED IN TIGHTER PLACES

AC & DC PLUG CONNECTORS INCLUDED  
(except for OEM version, please consult us)



### SILENT OPERATING

ALL FANLESS MODELS EXCEPT 12V/60A & 24V/30A



### HIGH TEMPERATURE PERFORMANCE

RATED CHARGE UP TO +60°C WITH NO DERATING

CAN BE INSTALLED IN AN ENGINE ROOM

MODEL 12V/40A IGNITION PROTECTED ACCORDING TO STANDARDS SAE J1171 AND ISO8846



### WORLDWIDE USE

90-265VAC/47-65HZ AUTO-RANGING  
DESIGN AND CONSTRUCTION ACCORDING TO UL-1236 MARINE AND CSA 22.2-107.2 STANDARDS  
MEET ALSO ABYC A-31 REQUIREMENTS



### SMART CASING

NEW MODERN ROBUST AND COMPACT CASING  
TWO-COLOURED LEDS INDICATING CHARGE STATUS  
4 EXTERNAL FIXINGS FOR EASY MOUNTING



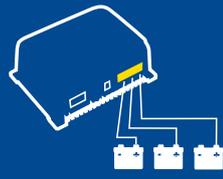
### 5-STAGE CHARGING PROFILE

- 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 INTERNAL SWITCH
  - REBOOST :** NEW AUTOMATIC BOOST PHASE IF BATTERIES DEMAND NEEDS IT
- POWER-SUPPLY MODE ALSO AVAILABLE  
IU MODE BY BOOST INHIBITING BY INTERNAL SWITCH



### ADAPTATIVE CHARGING

BATTERY TECHNOLOGY SELECTION BY INTERNAL SWITCHES INCLUDING GEL, AGM, FLOODED, CALCIUM-LEAD, LITHIUM, ETC.  
SPECIFIC REQUESTS: BY FACTORY SOFT ADJUSTMENT, CONSULT US.



### 3 ISOLATED BATTERY BANKS

AUTOMATICALLY SENSES AND DISTRIBUTES 100% OF AVAILABLE CHARGING AMPS TO ANY ONE BANK OR COMBINATION OF ALL BANKS  
**ONE BANK DEDICATED TO THE ENGINE BATTERY + BAT E**  
INTEGRATED ELECTRONIC MOSFET CHARGE SEPARATOR  
PROTECTION OF THE CHARGER DURING ENGINE STARTING PHASE

### SCALABLE CHARGER

CAN-BUS INTERFACE FOR DATA AND CONTROL TRANSFER (OPTION)  
REMOTE TOUCH-SCREEN CONTROL PANEL (OPTION)



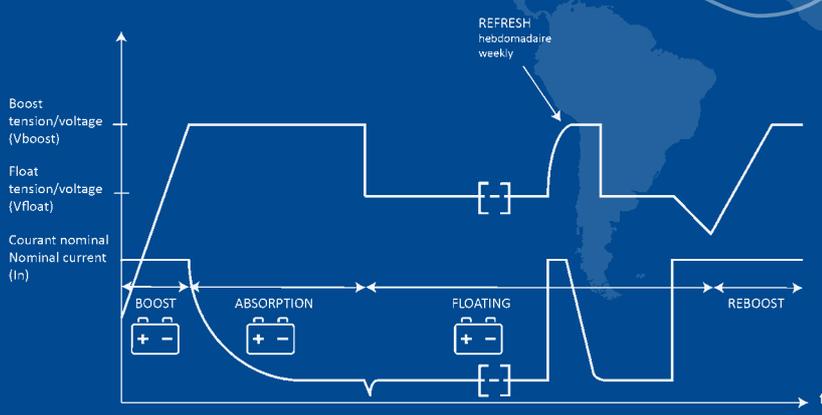
### PARALLEL STACKING FEATURE

ALLOWS UP TO 4 CHARGERS TO WORK TOGETHER TO COMBINE THE OUTPUT CURRENT

IP22  
90/265Vac  
48Vdc

47/65Hz  
24Vdc

12Vdc



**YPOWER :** scalable chargers that meet current and future needs. Specific charging profiles and communication protocols upon request.





# Innovative battery chargers YPOWER RANGE



Part Number	YPO12-16ST	YPO12-25ST	YPO12-40ST	YPO12-60ST	YPO24-12ST	YPO24-20ST	YPO24-30ST
Model	12V/16A	12V/25A	12V/40A	12V/60A	24V/12A	24V/20A	24V/30A
Recommended battery bank (Pb)	100-200Ah	200-300Ah	300-500Ah	500-700Ah	100-200Ah	200-300Ah	300-500Ah
<b>INPUT</b>							
Voltage	From 90 to 265VAC single-phase automatic						
Frequency	From 47 to 65Hz automatic						
Input current consumption 230/115VAC	1,1/2,2A	1,7/3,4A	2,7/5,6A	4,4/8,7A	1,7/3,4A	2,9/5,9A	4,5/8,8A
Recommended power for a generator	280W	435W	700W	1050W	420W	700W	1050W
Power factor	1						
Efficiency	90% typical						
Removable input fuses	T6,3A/250V SCHURTER MST 250 Réf.0034.6623 (F101)		T15A/250V 6,3x32 (F101)		T6,3A/250V SCHURTER MST 250 Réf.0034.6623 (F101)		T15A/250V 6,3x32 (F101)
<b>OUTPUT</b>							
Number of battery banks	3 (including one for the engine battery) : +BAT E, +BAT 1 et +BAT 2 (integrated Mosfet splitter) Each bank can be used individually and deliver the rated current						
Total rated current (+/-7%) / Rated power	16A/228W	25A/356W	40A/570W	60A/855W	12A/342W	20A/570W	30A/855W
Charging curve	IU or IUoU through internal dip switches (Boost, Absorption and Floating – factory setting) - Selectable automatic Refresh						
Battery type	Lead sealed as factory setting - Other choices through internal setting (Calcium Lead, gel, AGM, LiFePO4, Opened, etc.) - Specific requests : consult us						
Boost voltage	14,4VDC for Lead sealed battery (factory setting)				28,8VDC for Lead sealed battery (factory setting)		
Floating voltage	13,8VDC for Lead sealed battery (factory setting)				27,6VDC for Lead sealed battery (factory setting)		
Regulation tolerance before output diode and fuse	< 2% (at rated conditions)						
Peak to peak ripple	< 2% (at rated conditions)						
Automotive fuse in the minus pole -BAT	1 x 20A/32V (F500)	1 x 30A/32V (F500)	2 x 25A/32V (F500, F501)	3 x 25A/32V (F500, F501, F502)	1 x 15A/32V (F500)	1 x 25A/32V (F500)	2 x 20A/32V (F500, F501)
<b>ENVIRONMENT</b>							
Cooling	Natural (fanless) - Electric fan controlled in temperature and current for 12V/60A and 24V/30A models						
Sound level	0			< 50dBa at 1m	0		< 50dBa at 1m
Operating temperature (230VAC)	From -20°C to +60°C, derating from 60°C. Above 65°C, automatic charger switch off, automatic restart when temperature decreases						
Storage temperature	From -20°C to +70°C						
Relative humidity	Up to 70% (95% without condensation)						
<b>CASING</b>							
Material	Casing comprises 3 parts : · Aluminium sink frame · Thermoplastic body · Aluminium clasp						
Dimensions (length, height, depth) / Weight	236 x 180 x 96 mm / 2,1 kg		289 x 195 x 106 mm / 3,5kg		236 x 180 x 96 mm / 2,1 kg		289 x 195 x 106 mm / 3,5 kg
Fixing center distance	219 x 155 mm		272 x 170 mm		219 x 155 mm		272 x 170 mm
Fixing screw (wall)	4 M5 round screws						
Protection factor	IP22						
PCB protection	Water-repellent varnish (marine environment)						
<b>STANDARDS</b>							
CE / EMC	EN61204-3						
CE / Security - Others	EN60335-2-29 - J1171/ISO8846 for model 12V/40A - ABYC A-31 - Pending UL and CSA						
<b>PROTECTIONS</b>							
	Against leaking input surges by VDR rupture (voltage dependent resistor) - Not covered by warranty						
	Against output polarity reversal by fuse rupture (removable automotive type)						
	Against short-circuit and surge						
	Against abnormal overheating by cutting off the charger (internal temperature probe - automatic restart)						
<b>OPTIONS</b>							
Temperature probe	Output voltage compensation : -18mV/°C				Output voltage compensation : -36mV/°C		
Communication	CAN-BUS interface						

YPOWER battery charger options	Temperature sensor for battery compartment	Touch-screen control panel	Charger ON/OFF remote control	CAN-BUS and relays board
Item part number	STP-NEW-2.8 / STP-NEW-5.0	YPO-DISPLAY-R	G-ON/OFF-R	See specific datasheet

