

# CPS2 Battery Chargers



**CRISTEC**  
on-board energy

# > Made-to-measure with complete

- CRISTEC has been designing, developing and marketing energy conversion electrical equipment for over 20 years.
- Innovation and expertise in HF technology enable CRISTEC to offer products specifically adapted to the demands of numerous applications: water sports, customised vehicles, renewable energy, industry.



## > Ergonomics

Opening of the casing and access to the charger is performed using a unique screw and a detachable clasp. Cable glands provide protection against water ingress and vibration.

## > Interfaces

Optional connection for external battery temperature sensor enables optimisation of battery charging and/or a digital display unit to check battery state.

## > Reinforced protection

Anti-drip covering.  
Electronic board coated with waterproof and tropicalising varnish.

# charging independence

Having already sold more than 40,000 HF chargers throughout the world, CRISTEC has now confirmed its expertise in the field of battery charging with the CPS2 range: meeting constantly evolving needs and ever stricter standards.

## > Universal powering

CPS2 chargers accept all alternating input voltages between 85 and 265 VAC and all frequencies from 47 to 63 Hz.

## > Power Factor and Efficiency

Power Factor Correction (PFC) considerably reduces consumption and optimises the AC supply input waveform. A new PCB layout combined with precise component choice have resulted in improved efficiency.

## > Selective Charge

One of the three outputs is specifically designed for charging engine start batteries, in order to prevent unnecessary overcharge, particularly during Boost phase.

## > Type of Charge

Choose either 3 Stage charge with Boost phase or Float charge for use when "wintering" or using as a stabilised power supply.

## > BOOST

Timed function which activates according to battery state.

## > Battery Characteristics

Selection of battery technology by internal switches, e.g. Lead Acid or Gel, to ensure charging suited to manufacturer requirements.

## > Standards

CPS2 chargers fulfil the most demanding criteria. They comply with current CE standards and are certified with the E label (electromagnetic requirements for on-board equipment).

## > CPS2 Chargers... Efficient

Light, ultra-compact and silent, CPS2 chargers provide specific battery charging in minimum time thanks to their 3 charging modes: Boost, Absorption and Floating.

## > CPS2 Chargers... Universal

Entirely automatic, universal input of 85 to 265VAC (ideal for use with European or US voltages) and built-in diode charge distributors, CPS2 chargers can be connected permanently to batteries in total safety. No need to disconnect during engine start.

## > CPS2 Chargers... Reliable

Thanks to a particularly efficient filtering network, CPS2 chargers deliver perfectly stable output current without interfering with other onboard equipment. The CPS2 range is protected against polarity reversal and guaranteed for 3 years.



Compact, lightweight and aesthetic, CRISTEC CPS2 chargers bring you all the safety and convenience advanced technology can offer.

## ■ Electrical specifications

### Voltage, frequency

- > Universal input voltage: 85 to 265 VAC single phase +/- 15% (Suitable for use with AC generators)
- > Input frequency: 47 to 63 Hz
- > Nominal output voltage (depending on model): 12, 24 or 48 VDC +/- 1%
- > Output voltage can be adjusted using the internal potentiometer.

### Charge

- > Built-in Power Factor Correction (PFC)
- > Efficiency over 80%
- > Selectable charge type (boost, absorption or floating) by internal switch:
- > Controlled current and time boost (max 4 hours)
- > Integrated diode charge distributor for all three outputs
- > Suitable for use with Lead Acid, Gel and various battery types. Selection via internal switch

### Protection

- > Protected against short circuits
- > Fuse-protected against input polarity reversal
- > Fuse-protected against output polarity reversal (not model 24V/75A)
- > Protected against AC over voltage by internal varistor (not covered by the guarantee)
- > Thermal overheat protection

### Outputs, environment

- > "Night function" option shuts down cooling fan and reduces charge output on 12V/25, 40 & 60A and 24V/12A, 20 & 30A and 48V/15A models
- > Thermostatically controlled ultra-low noise electric fan (apart from naturally ventilated models 24V/08A or 12V/16A)
- > LED indicators for battery charger status - Mains on, boost, absorption or floating

- > Dedicated engine battery (+ BAT D) output
- > Operating temperature: -10°C to +60°C
- > Storage temperature: -20°C to +70°C
- > Output terminals available for - LED charger status - Boost On/Off - Charger On/Off
- > External power limitation switch on models 12V/80A, 24V/20, 60 and 75A

### Features

- > May be used to provide stabilised power supply
- > Optimised heat exchange (SMI technology) for models 12V/40, 60 and 80A, 24V/20, 30, 50, 60 and 75A and 43V/15 and 30A

## ■ Standards and Guarantee

- > Compliant with current CE standards, including generic standards EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4 and EN 60950
- > E label
- > Guarantee: 3 years

## ■ Options

- > External temperature sensor via 4 pin RJ45 type connector
- > Digital remote display via 8 pin RJ45 type connector

## ■ Mechanical characteristics

- > Corrosion resistant aluminium case (apart from steel cover IP21)
- > Epoxy finish in RAL 9011 matt black, RAL 1018 yellow and RAL 7047 grey, salt atmosphere resistant
- > Tropicalisation of electronic panel using waterproof varnish
- > Plastic glands to secure cables from vibration
- > Exterior fixing points
- > Connection of battery cables on threaded rod or insert.

### ■ Case dimensions in mm (not including cable glands)

Case	Height	Width	Depth
CF6B	179	268	106
CF7B	209	288	115
CF8B	260	351	135

Voltage/current	Number of outputs	Item ref. no	Type of case	Weight	Typical input current at 230VAC
12V/16A	3	CPS2/12-16	CF6B	2,4 Kg	1,3A
24V/08A	3	CPS2/24-08	CF6B	2,4 Kg	1,3A
12V/25A	3	CPS2/12-25	CF6B	2,4 Kg	2,0A
24V/12A	3	CPS2/24-12	CF6B	2,4 Kg	1,9A
12V/40A	3	CPS2/12-40	CF7B	4,4 Kg	3,0A
24V/20A	3	CPS2/24-20	CF7B	4,4 Kg	3,0A
12V/60A	3	CPS2/12-60	CF7B	4,4 Kg	4,5A
24V/30A	3	CPS2/24-30	CF7B	4,4 Kg	4,3A
48V/15A	3	CPS2/48-15	CF7B	4,4 Kg	4,2A
12V/80A	3	CPS2/12-80	CF8B	6,6 Kg	6,0A
24V/50A	3	CPS2/24-50	CF8B	6,6 Kg	7,7A
24V/60A	3	CPS2/24-60	CF8B	6,6 Kg	9,3A
48V/30A	3	CPS2/48-30	CF8B	6,6 Kg	9,2A
24V/75A	3	CPS2/24-75	CF8B	6,6 Kg	11,5A

Specifications may change without notice. Please contact us.



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