CBHF2

HIGH FREQUENCY BATTERY CHARGERS



Main features:
Power from 180W up to 1050W
Current from 15A to 40A
Active PFC
Charging cycles information through USB (optional)
Extra power version available (CBHF2-XP)

DIMENSIONS (LxWxH): 180x310x100 mm – 7.09x12.20x3.94 in
WEIGHT: 3,50 Kg - 7.72 lbs
PROTECTION GRADE IP30
INPUT VOLTAGE:
Universal 100 ÷ 240 Vac – 50-60 Hz - 240 Vac only availlable
* CBHF2-XP 36V/48V: 208 ÷ 240 Vac – 50-60 Hz

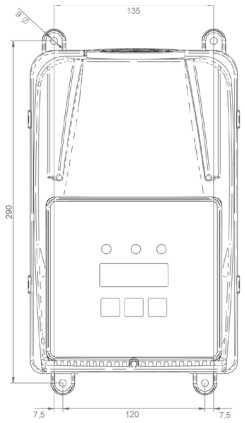
Technical Features:

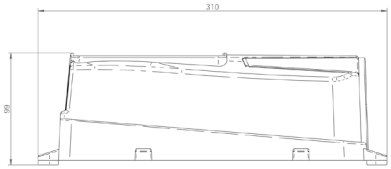
- High frequency system with advanced technology.
- Charging process fully controlled by microprocessor.
- Efficiency > 90%.
- Insensitive charge parameters related to input line voltage variations
- Visualization on a lit display of the charging current, of the battery voltage, of the charging time, of the charge supplied in Ah and of the energy absorbed in KWh.
- Possibility to change the charging curve by means of buttons (LCD version), choosing from 16 standard pre-programmed curves for lead-acid, Gel and AGM batteries. Any other curve available on request for all type of batteries (Li-Ion and Li-Po included).
- dV/dt adaptive charging profile available under request for Wet lead-acid traction batteries.
- Possibility to change the battery voltage and the charging current by means of buttons (LCD version).
- Charging process starting in the “soft start” mode and automatic reset upon connection of a new battery.
- Alphanumeric signals of possible anomalies.
- Output ripple at maximum load lower than 100mV.
- Compensation of the voltage drop on the connecting cables to the battery.
- Charge cycle begins with batteries as low as 2V.
- Protection against polarity inversions, short circuits, over-voltages or anomalies.
- Thermal protection against overheating.
- Equipped with NC (normally closed) relay for safety interlock connections (available only for on-board installation).
- Operating temperature:
  -10°C ÷ +45°C (14°F ÷ 113°F).
- Maximum relative humidity: 90%.
- International Protection Rating IP30 with forced ventilation.
- Self-extinguishing case made of UL94-V0 ABS.
- Remote 3-LED (red,yellow and green) of recharge (optional) with
  - 3-LED board (code: SKLED)
  - 3-LED 18mm diameter round remote indicator (code: LBF318EZ)
  - 3-LED 22x30mm squared remote indicator (code: LBF30EZ)
- Avaible under request the information relevant to the last 30 charging cycles (the duration of the charging cycle, the Ah’s delivered by the battery, the voltage at the end of the charge and the possible error messages) can be downloaded in an excel file through a cable (code: SPEDATACABLEHF) and a specific software available.

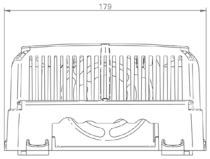
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Battery Voltage	Battery Range (5h) 8-9 hours charging time	Battery Range (5h) 10-12 hours charging time	Battery Range (20h) 10-12 hours charging time	Charging Current	Model
12V	80÷110 Ah	100÷150 Ah	130÷185 Ah	15A	12-15
	95÷120 Ah	120÷195 Ah	150÷240 Ah	20A	12-20
	120÷160 Ah	180÷260 Ah	220÷315 Ah	25A	12-25
	145÷180 Ah	200÷280 Ah	245÷350 Ah	30A	12-30
	180÷220 Ah	250÷320 Ah	305÷390 Ah	35A	12-35 (XP)
	220÷260 Ah	295÷360 Ah	360÷440 Ah	40A	12-40 (XP)
24V	80÷110 Ah	100÷150 Ah	130÷185 Ah	15A	24-15
	95÷120 Ah	120÷195 Ah	150÷240 Ah	20A	24-20
	120÷160 Ah	180÷260 Ah	220÷315 Ah	25A	24-25
	145÷180 Ah	200÷280 Ah	245÷350 Ah	30A	24-30
	180÷220 Ah	250÷320 Ah	305÷390 Ah	35A	24-35 (XP)
	220÷260 Ah	295÷360 Ah	360÷440 Ah	40A	24-40 (XP)
36V	80÷110 Ah	100÷150 Ah	130÷185 Ah	15A	36-15
	95÷120 Ah	120÷195 Ah	150÷240 Ah	20A	36-20
	120÷160 Ah	180÷260 Ah	220÷315 Ah	25A	36-25
	145÷180 Ah	200÷280 Ah	245÷350 Ah	30A	36-30 (XP)
48V	80÷110 Ah	100÷150 Ah	130÷185 Ah	15A	48-15
	95÷120 Ah	120÷195 Ah	150÷240 Ah	20A	48-20
	105÷140 Ah	150÷220 Ah	165÷265 Ah	22A	48-22 (XP)







ELECTRONIC BATTERY CHARGER - OPERATING MANUAL

CONTROL COMPONENTS

The display shows:

- Charging current (A)
- Battery voltage (U)
- Amp-Hours returned (C)
- Elapsed time (h)
- Active charge profile is displayed when button is pressed.
- To enter the charging parameter menu, see CHARGING SETTINGS.

OPERATION

Connect the AC power cable supplied with the battery charger to the charger. Connect the battery to the charger with the correct polarity. Then, plug the AC power cord into the wall receptacle. The LCD display of the battery charger will now show, in sequence, information related to the internal programming of the charger: the software version installed on the charger (e.g. Ver 009-008-001):



On the next screen, the LCD will display the parameters for:



- Battery voltage,
- Charging current,
- Battery charger model,
- Number and type of charging curve.

At this point a test is conducted on the battery voltage to decide whether or not to start the charging process. If the battery is not connected to the charger, the display shows "No Battery". This message remains on the display as long as the test is unsuccessful. Same message is displayed in the case of:



- Reversed polarity
- Battery in short circuit
- Battery voltage lower than 3V.

If the battery test is still unsuccessful, the charger continues to check the voltage on the battery cables until it detects an acceptable condition.

