

Battery Charger 110V D.C

Mat. Code: ZWI190101024

1.1 Float Cum Boost charger

1.1(A) Float charger:

- 1.0 Input Power Supply : 220 Volts $\pm 10\%$, Single Phase or 415 Volts $\pm 10\%$ 3 Phase, 50Hz $\pm 5\%$
- 2.0 Output Voltage : 110 Volts DC
- 3.0 Output Current : 30 Amps. DC Continuous
- 4.0 Mode of Operation : Automatic / Manual
- 5.0 Output Ripple : Within 2% rms at full load of 115 Volts DC without battery connected.
- 6.0 Output Regulation : Within $\pm 1\%$ for $\pm 10\%$ supply voltage fluctuation and 10 to 100% load variation.
- 7.0 Control Configuration : 1-Phase / 3 Phase full wave thyristor or IGBT bridge or latest technology AC to DC converter fed thru 1-phase / three phase transformer and controlled by controller unit with load limiting feature.

1.1(B) Float cum boost charger:

- 1.0 Input Power Supply : 220 Volts $\pm 10\%$, Single Phase or 415 Volts $\pm 10\%$ 3 Phase, 50Hz $\pm 5\%$
- 2.0 Output Current : 30 Amp. DC Continuous
- 3.0 Boost Mode
 - a) Starting rate : Suitable for supplied Battery Bank
 - b) Finishing rate : Suitable for supplied Battery Bank
- 4.0 Mode of Operation : Automatic
- 5.0 Output Ripple : Within 2% rms at full load of 115 Volts DC without battery connected.
- 6.0 Control Configuration : 1-Phase / 3 Phase full wave thyristor or IGBT bridge or latest technology AC to DC converter fed thru 1-phase / three phase transformer and controlled by controller unit with load limiting feature.

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1.2.0 Ammeter: Output Current

1.3.0 Voltmeter: Main Supply Voltage & Out-put Voltage (Float, Boost, Load & Battery).

1.4.0 Alarm Module: Alarm for all abnormal conditions in the system.

1.5.0 The Float charger mentioned at '1(A)' above and the Float cum Boost charger mentioned at '1(B)' above, shall act as redundant to each other. In case of failure of one unit, the other shall change over automatically. The faulty charger shall display 'Alarm' condition, in this case.

1.6.0 Both the chargers mentioned at '1A' and '1B' above shall have integrated digital status indicator, showing Battery Voltage and Discharge current of the battery bank.

1.7.0 Voltage Regulation

a) The float charger shall have auto voltage regulation arrangements. Output DC voltage shall not vary beyond $\pm 1\%$ of the set value in following conditions:

Load Variation : 10-100 %

Line Variation : $\pm 10\%$,

Frequency Variation: $\pm 5\%$

1.8.0 The battery charger shall also have the following features: 1. Indications: Input supply ON, Float ON, Boost ON, Input supply Fail, DC Over Current, Charger Failure, DC Under & Over Voltage.

1.9.0 Integrated DCDB comprising:

- | | |
|---------------------|--------------------------------------|
| 1. Incoming Feeder | : Suitable Rating MCCB -- 01 no. |
| 2. Outgoing Feeders | :(a) 32 Amp, 2Pole DC MCB --- 04 no. |
| | (b) 16 Amp, 2Pole DC MCB --- 04 no. |
| | (c) 10 Amp, 2Pole DC MCB --- 02 no. |

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1.10.0 Make:

HBL/Amara raja/ chhabi/sevilinear/statcon/chloride/Danish
/Dubas/Signotron/Ascon Control/VERTIV /Kirloskar / Eltek.

2.0 Delivery

120 Days from date of Placement of Purchase Order.

3.0 Commissioning:

30 Days from the date of first intimation from BHEL to vendor (after receipt of material).

4.0 Vendor Obligation:

1. All interconnection between battery bank (supplied) and battery Charges in the scope of Vendor.
2. BHEL shall provide power supply up to Battery Charger.

5.0 Warranty:

Battery Charger shall carry a warranty for one year from the date of commissioning of Battery Charger.

M/V
18/7/19

DGM (ESX & DC Set)

18/7/19

Dy. Mgr (ESX)

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20.07.19

William
20/07
2019