



BCX03 Battery Chargers

Genset Controls - Timers - Monitors - Trips - Battery Charging - Spares & Accessories - Custom Products

The BCX03/12 & BCX03/24 are 3 Amp, CONSTANT POTENTIAL solid state battery chargers which allow maintenance free charging of Lead-Acid batteries, over a wide ambient temperature range.

OPERATION : The electronic circuitry ensures that the battery is maintained at the correct 'Float Voltage' with negligible 'gassing'. As the battery is charged it's internal resistance rises, "tapering" the charge current accordingly, until the battery terminal voltage approaches the charger reference voltage, whereupon the battery is trickle charged to the "constant potential" float level.

Although the output current is not controlled electronically, it is limited by virtue of the transformer design. However, the output current can initially rise upto 6A, for a short duration.

An auto-resetting 'Thermal-Trip' is positioned to monitor the temperature of the secondary winding & transformer laminations and is used to disconnect the primary winding.



VOLTAGE THRESHOLD : Unless specified otherwise, all units are pre-set at : 2.3V/Cell 'Float' level. The potentiometer is factory calibrated (at centre scale) and should not normally require adjustment.

CHARGE INHIBIT : This prevents the charger from switching on when the terminal voltage is below (approx.) half its 'Float' level, thus protecting it from short circuit and reverse polarity fault conditions.

OVERRIDE (O/RIDE) TERMINALS : Linking these terminals - defeats the 'charge inhibit' protection (see above), enabling the charger to operate, even into a 'short-circuit' ! If these terminals are to be permanently linked it is recommended that this is done AFTER commissioning and an Output fuse is added (6Amp Anti-Surge).

CHARGER ON (LAMP) TERMINAL : A +Ve output to a Charge Failure Monitor (CFM400) & / or an external 'Charger On' lamp (100mA max. load).

CHARGING TERMINAL : A +Ve output for an external (incandescent) 'Charging' lamp (100mA max. load). This is not suitable to drive a relay.

LEAKAGE CURRENT : Approx. 2mA

CONSTRUCTION : Mild steel (1mm) zinc plated and gold passivated base plate, frame transformer, aluminium heatsink, and printed circuit board assembly. The charger should be mounted so that the natural air-flow passes through the transformer core.

INDICATORS : "Power-On" LED.
" Charging" LED

SUPPLY VOLTAGE : 115 +/- 20% 50/60HZ
(Specify on order) 230 +/- 20% 50/60HZ

TEMPERATURE RANGE :
-10 deg C to +55 deg C (operating)
-20 deg C to +70 deg C (storage)

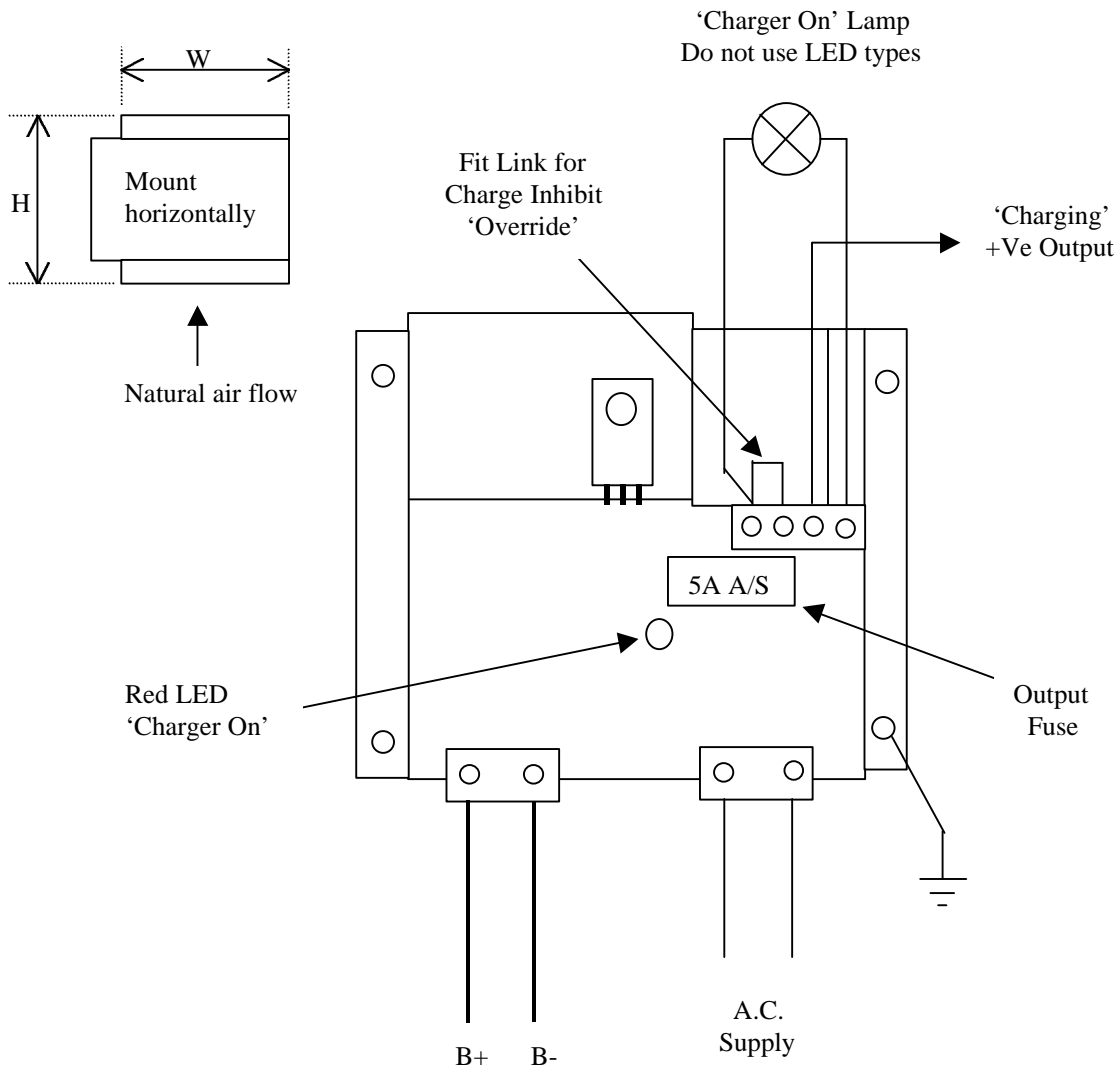
DIMENSIONS :

80mm (H) x 90mm (W) x 106mm (D) overall
54mm x 72mm x M4 fixing centres

WEIGHT : 1.2 Kg

BASE PLATE : Fitted as standard

Connections



Notes:

1. Fit 'Override' link after commissioning or to charge batteries <math>< \frac{1}{2}</math> Float Level.
2. The fuse is for protection from a reverse polarity battery and is not designed for short-circuits



CAPRICORN CONTROLS LIMITED

INDUSTRIAL ELECTRONIC ENGINEERS

SPECIALIST CONTROLS FOR ENGINE APPLICATIONS

Thorpe Close, Banbury, Oxon., OX16 4SW. England

Tel: +44 (0) 1295 272360 Fax: +44 (0) 1295 264766

E-mail: sales@capricorn-controls.com Web: www.capricorn-controls.com

Keystart, Remote Start, Start-on-Demand, Mains Failure, Mutual Standby & Multi-set Controllers. Annunciators and Lamp Modules. Voltage, Current, Frequency, Speed, and Temperature Monitors. Timers. Transport Refrigeration Spares. Batteries, Battery Chargers and Power Supplies. Spares and Accessories. Customised Products and Bespoke Designs.