AGF
ELECTRONICS - SRL

ROBOT 312 – 3

Switching Battery Charger 12V 40A

CE

INTRUCTION MANUAL

AGF Electronics Srl – Via Mazzini, 09 – 21041 Albizzate – VA – ITLAY – Tel +39 0331 981 007 – Fax +39 0331 983 105 – www.agfitaly.com

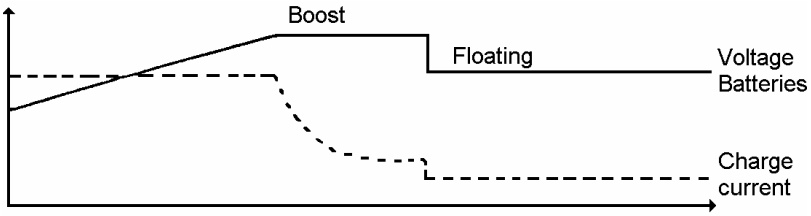
TECHNICAL SPECIFICATIONS

POWER SUPPLY DATA:

- Input voltage ⇒ 230 VCA or 115 VCA (±15%). Settable internally.
- Frequency ⇒ 50 Hz or 60 Hz (± 10%) cat. II
- Consumption ⇒ 5 A (230 VCA) or 10 A (115 VCA)
- Performance ⇒ 80% typ.

OUTPUT DATA:

- Number of outputs ⇒ 3 insulated outputs
- Charge type ⇒ 3 stages: limited current / Boost / Floating
- Battery type selector ⇒ "GEL - LEAD ACID" selector
- Maximum output current ⇒ 40 A (± 5 %)
- Batteries ⇒ Lead Acid or Gel 80 Ah to 400 Ah Max.; 12 V (6 elements)



OUTPUT VOLTAGE

	Boost	Floating
"Gel" Position	14.5 V	13.8 V
"Lead Acid" Position	14.1 V	13.4 V

SAFETY DEVICES:

- In event of low power supply ⇒ Battery charger shutdown (automatic operation reset)
- In event of short circuit on output ⇒ Battery charger shutdown (automatic operation reset)
- In event of polarity inversion ⇒ Output fuse damage
- In event of battery overvoltage ⇒ Battery charger shutdown (automatic operation reset)
- In event of overheating ⇒ Battery charger shutdown (automatic operation reset)
- Power supply fuses ⇒ T 5A 250V 6,3x32mm (230 VAC); T10A 250V 6,3x32mm (115VCA)
- Output fuse ⇒ No. 2 of 25 A (strip fuse), 32 V

STANDARDS

- Emissions and sensitivity ⇒ EN 55014; EN55104; EN61000-3-2; EN61000-3-3
- Safety ⇒ EN 60335 ed.95 + amendments; EN 60335-2-29 ed. 96
- Appliance category ⇒ Class 1

INDICATORS

- Battery charger operation ⇒ "On/Off" Led
- Battery low ⇒ "Boost" Led
- Internal overheating ⇒ "Temp. Alarm" Led
- With optional panel it is possible to obtain the same remote visualitions.

TEMPERATURES

- Operating temperature ⇒ from -10° C to +50° C
- Storage temperature ⇒ from -20° C to +70° C
- Cooling ⇒ Forced with 2 fans
- Relative humidity ⇒ From 10% to 90% condensate free. Tropicalised electronic circuit.

MECHANICAL DATA

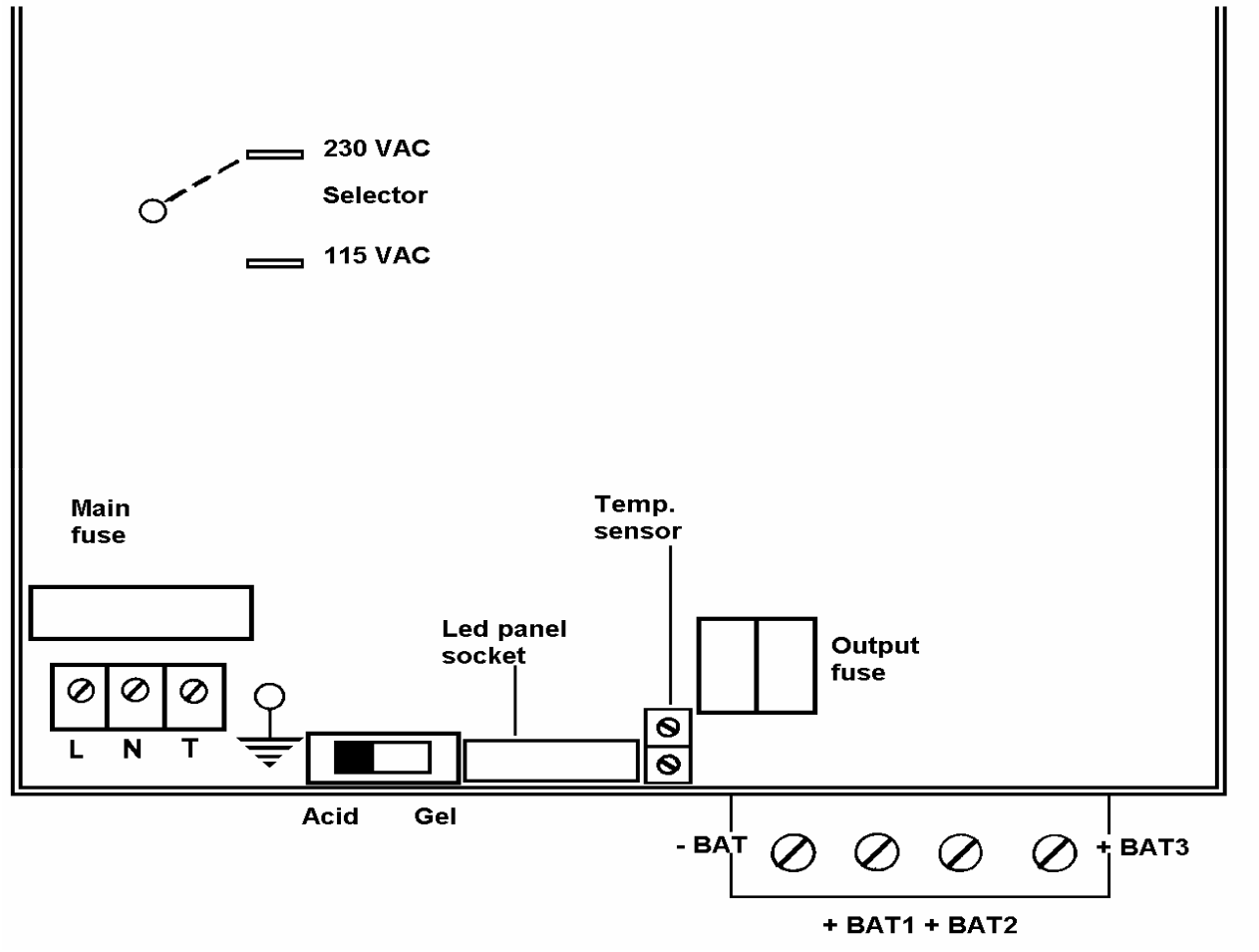
- Enclosure ⇒ Enclosure in aluminium with epoxy powder finish
- Assembly ⇒ Wall-mounted
- Protection rating ⇒ IP20
- Dimensions ⇒ 230 x 300 x 90 mm
- Weight ⇒ 3.5 Kg. approx.

INSTALLATION AND CONNECTIONS

PRECAUTIONS DURING INSTALLATION

- Ensure a clearance of at least 10 cm around the battery charger to ensure adequate ventilation.
- The battery charger must not be installed in the vicinity of heat sources or exposed to water.
- Ventilation slots must not be obstructed.
- Modifications to the metal enclosure a strictly prohibited (in particular drilling of new holes). The presence of metal filaments inside the battery charger can cause irreparable damage!
- Fix the battery charger in a vertical position with the cable outlet facing downwards.
- The temperature probe (OPTIONAL) must be fixed to the battery most subject to overheating and connected to the terminals “Temperature sensor” after removing the 2 KOhm resistance.
- This appliance can be connected to a 230 VAC 50 Hz or 115 VAC 60 Hz mains power supply settable by means of a selector fitted internally.
- The selection of 115 VAC or 230 VAC must be made with the unit disconnected from the mains. Incorrect selection of the power supply voltage (e.g. selector on 115 VAC with mains power supply at 230 VAC) can cause irreparable damage to the battery charger.
- **CAUTION: the appliance is set for use with 230 V mains power supply.**
- Power supply input must be equipped with a disconnect switch (residual current circuit breaker) to protect persons from electric shocks. Circuit breaker sizing must correspond to the battery charger absorbed power.
- In compliance with EC directives, the following is recommended:
  - use short, shielded or twisted battery cables.
  - ensure installation of an efficient earthing system.
- Recommend sections for battery cables: 10 mm^2.
- Always connect the service battery to terminal +BAT1.
- The mains connection cable must only be replaced by a technical assistance centre or on the factory premises.

GENERAL CONNECTION LAYOUT



MAINTENANCE

PRELIMINARY MEASURES AND WARNINGS

- Before maintenance inside the appliance, observe the following:
  1) disconnect the unit from the mains.
  2) wait 5 minutes before opening the cover.
  3) disconnect the battery cables (- BAT obligatory)
- Hazardous voltage present on electronic circuit; risk of electric shock.
- If the mains fuse is blown, do not attempt to replace as this condition is often due to a general fault on the mains and therefore irreversible on the electronic circuit.
- Polarity inversion on battery cables automatically blows the output fuse.
- In the event of replacement of a blown output fuse, replace with a version with the same characteristics. To obtain an adequate electrical contact, tighten the fuse holder contacts before mounting new fuses.
- Connect the service battery to terminal + BAT1.
- Never connect non-rechargeable batteries.
- Disconnect from the power supply mains before connecting/disconnecting batteries.
- Position batteries to be charged in a well-ventilated area.

LED DESCRIPTION AND FAULTS

FRONT PANEL:

- **"On/Off"** Led on: ⇒ Battery charger on
- **"Boost"** Led on: ⇒ Batteries charging (Boost)
- **"Boost"** Led off: ⇒ Batteries charged (Floating)
- **"Temp Alarm"** Led flashing: ⇒ Internal temperature fault
  ⇒ Excessive ambient temperature
  ⇒ Ventilation slots blocked
  ⇒ Appliance positioned in poorly ventilated zone
  ⇒ Appliance positioned in the vicinity of a heat source
  ⇒ Internal fan faulty

ASSEMBLY SYSTEM

Switching Battery Charger

Sistema di fissaggio
Assembly system