

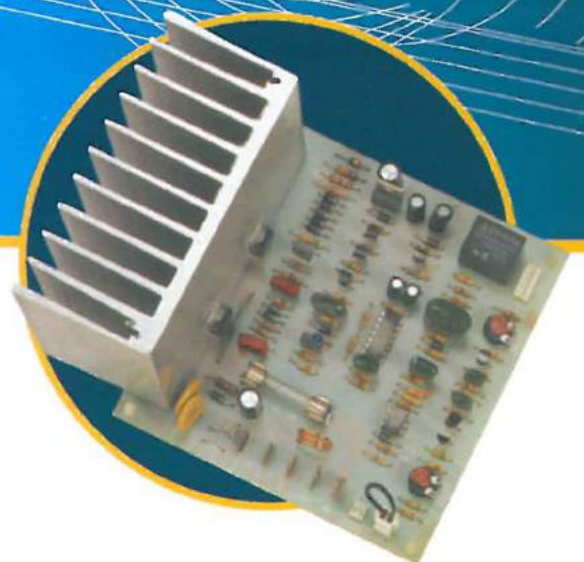
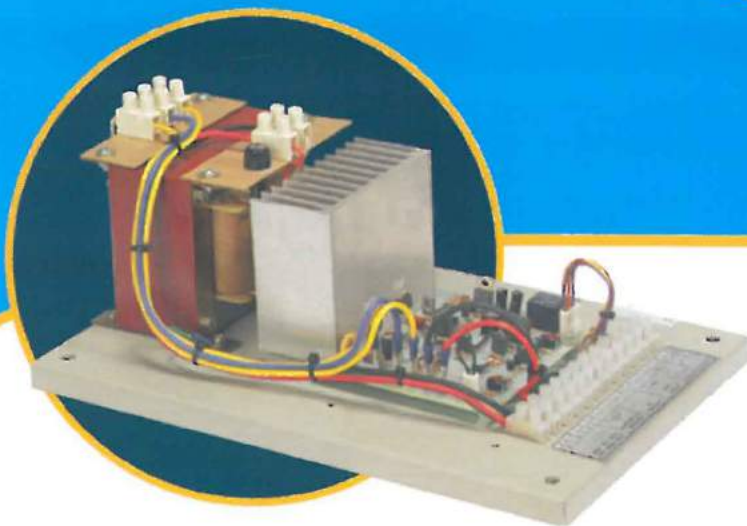
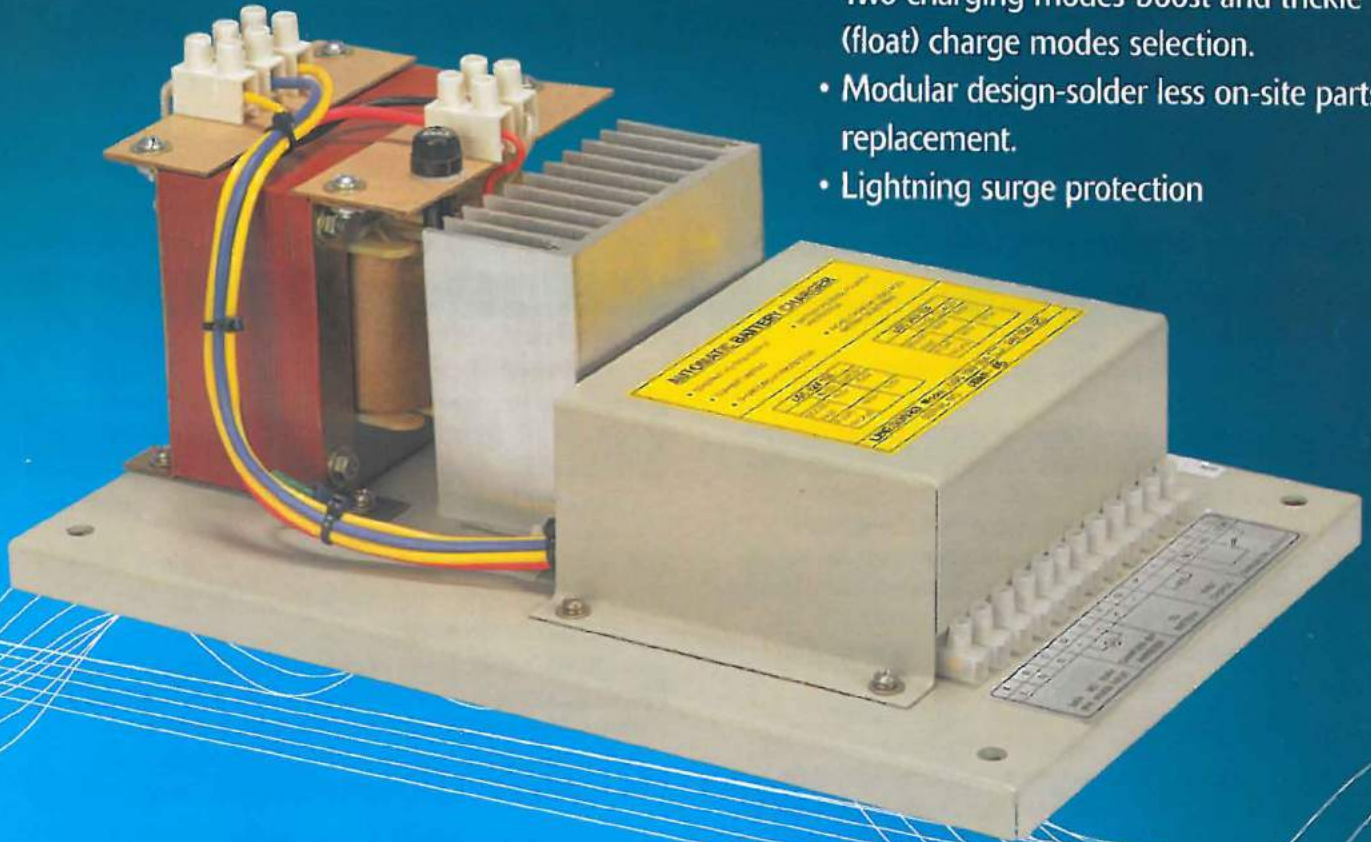
**THE POWER YOU CAN TRUST**

# **OPEN FRAME AUTOMATIC BATTERY CHARGER**

**FOR CHARGING ENGINE STARTING BATTERY**

## **FEATURES:**

- Constant voltage output-over charge protection.
- Current limited-Over current protection.
- Short circuit protection.
- Battery reverse polarity protection.
- Lead Acid and NI-CD battery selection.
- Charger fail alarm signal
- Two charging modes-boost and trickle (float) charge modes selection.
- Modular design-solder less on-site parts replacement.
- Lightning surge protection



**JUMBOHAN MARKETING SDN BHD**

enquiry@jumbohan.com +603 6189 0909

TECHNICAL SPECIFICATION	MODEL	Battery Type	Float Voltage	Boost Voltage	Current Rating
<ul style="list-style-type: none"> <li>Voltage : AC 240V <math>\pm</math> 10%</li> <li>Frequency : 50 HZ <math>\pm</math> 5%</li> <li>Phase : Single phase</li> </ul>	LGC 12V 10A/15A/20A/25A	LEAD ACID	13.5V	14.5V	10A/15A/20A/25A
		NI-CD	14.0V	15.0V	10A/15A/20A/25A
	LGC 24V 10A/15A/20A/25A	LEAD ACID	27.0V	29.0V	10A/15A/20A/25A
		NI-CD	28.0V	30.0V	10A/15A/20A/25A

### THYRISTOR CONTROLLED RECTIFICATION

- High efficient SCR controlled rectifier ensures high reliability and durability.
- Charger operates cooler than any other conventional design.

### CONSTANT VOLTAGE OUTPUT

- SCR phase control is used to control and regulate output voltage at a constant level which enables correct and accurate charging voltage to be measured before connection of battery to charger.

### CURRENT LIMITED OUTPUT

- Output current is limited to maximum current rating of charger.
- Output overload or short circuit will not cause any damage to charger.
- No need to disconnect charger from battery when cranking engine.

### TWO CHARGING MODES

- Charger can be selected by a close or open switch for boost or float (trickle) charge voltage selection.

### OPTIONAL AUTO TIME BOOST FEATURE

- Auto Timed Boost provides automatic boost charge mode activation with timer to revert to float mode after a pre-set time.
- A battery condition sensor monitors the battery voltage. When battery voltage drops below a pre-set level, boost charge mode is automatically activated. After a pre-set time is reached, the charger reverts to float mode automatically.

### MODULAR DESIGN

- A single piece of P.C.B. contains all the control components. ALL connections to P.C.B. are by plugs and sockets.
- No tedious soldering work needed for site repair.

### BATTERY REVERSE POLARITY PROTECTION

- Charger ceases to operate if battery terminals are connected in reverse across charger output terminals.
- Normal operation resumes when battery is re-connected with correct polarity across charger terminals.
- No replacement of fuse or part is needed to resume normal operation.

### CHARGER FAIL ALARM SIGNAL

- A volt-free change-over relay provides charger fail alarm output signal.

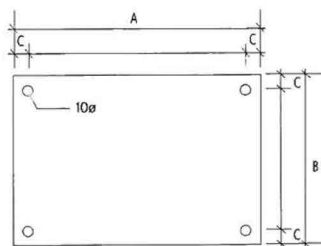
### LEAD ACID BATTERY AND NICKEL CADMIUM BATTERY SELECTION

- Same charger provides selection to charge lead acid or nickel cadmium battery.
- A change of an on-board jumper is all that is needed to select charger mode for lead acid or nickel cadmium battery type.

### LIGHTNING SURGE PROTECTION

- Metal Oxide Varistor (MOV) is incorporated to suppress voltage spikes caused by lightning strike and switching of near by heavy power equipment.

### DIMENSION AND MOUNTING DETAILS



### ALL DIMENSION IN mm

MODEL	A	B	C
10A/15A	340	220	15
20A/25A	430	260	15

### ELECTRICAL TERMINATIONS

A	B	C	D	E	F	G	H	I	J	K	L
L	N	E	+	-	+	-			NC	NO	COM
240V AC 50Hz 1PH. MAINS INPUT			CHARGER O/P AMMETER		TO BATTERY		FAST CHARGE		CHARGER FAIL CONTACT		



We Serve You Better

### JUMBOHAN MARKETING SDN. BHD.

Lot 16, Jalan Perusahaan 2, Kawasan Perindustrian Batu Caves, 68100 Selangor, Malaysia  
t: +603 6189 0909 f: +603 6188 9335 www.jumbohan.com enquiry@jumbohan.com