# DATASHEET



# **Battery Charger I - Series**

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### I 90 And I 144 Series Single Output Battery Charger

#### Features:

- Wide Input Supply Range, Withstand 500Vac
- · SMPS Based Technology
- Three Stage Charging Profile
- Auto Selection of Float and Boost Mode
- Protections Short circuit / Over load / Over voltage / Rev. Polarity
- · Led Indication For Mains On, Float, Boost, Batt. Rev.
- · High efficiency, long life and high reliability
- · Miniature size, high power density

#### **SPECIFICATION**

MODEL		l 90-12	l 90-24	l 144-12	l 144-24
Input	Voltage Range	120VAC ~ 300VAC			
	Frequency	45Hz - 65Hz			
	Efficiency	>85%			
	Inrush Current	<30A At 230VAC			
	Leakage Current	<2mA At 230VAC			
Output	Typical Batt Voltage	12VDC	24VDC	12VDC	24VDC
	Float Voltage	13.5VDC	27VDC	13.5VDC	27VDC
	Float Current	0 - 2Amps	0 - 1Amps	0 - 3Amps	0 - 1.5Amps
	Boost Voltage	14.2VDC	28.4VDC	14.2VDC	28.4VDC
	Boost Current	6Amps	3Amps	10Amps	5Amps
	Rated Power	85.20W 144W			
	Ripple & Noise Max.	< 1% of Rated Voltage			
	Voltage Tolerance	< 2% of Rated Voltage			
	Line Regulation	< +/- 0.5%			
	Load Regulation	< +/- 2%			
Protection	Input Over Voltage	Above 300Vac +/-10Vac ( Withstand 500Vac )			
	Output Over Load	Above 105% Rated output Power, Auto Recover			
	Output Over Voltage	115-135% Rated Output Voltage, Auto Recover			
	Batt. Rev. Polarity	Provided			
Indication	Led Indication	Led Indication For Mains On, Float Mode, Boost Mode, Battery Rev. Polarity			
	<b>Potential Free Contacts</b>	Potential Free Contacts for Annunciation ( 5A/250Vac Res. Load ) NC / Pole / NO			
Environment	Working Temp.	-10DegC to 60DegC			
	<b>Working Humidity</b>	20 to 90% RH Non Condensing			
	Storage Temp Humidity	-20 to 85DegC 10 to 95% RH			
	Vibration	10 to 500Hz, 2.5G, 20min/sweep, period-1Hr, Each along X, Y, Z axes			
Safety & EMC	Safety Standard	Designed to meet UL60950-1			
	Withstand Voltage	I/P-O/P: 3KVAC, I/P-Earth: 1.5VAC, O/P-Earth: 500VAC			
	Isolation Resistance	I/P-O/P, I/P-Earth, O/P-Earth : 100MΩ / 500VAC			
	EMC	EN61000-4-2/3/4/5/6/11			
Other	Enclosure	Powder Coated Sheet Metal			
	Cooling	Natural Cooling			
	Mounting	Panel Mounting			
	Dimension	187*108*60 (L*W*H)			
Note	<ol> <li>All parameters NOT specially mentioned are measured at typical input, rated load and 25Deg.C ambient temperature</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF &amp; 47uF parallel capacitor</li> <li>Tolerance: includes set up tolerance, line regulation &amp; load regulation.</li> <li>The Battery Charger is considered a component which will be installed into a final equipment. The final equipment must be reconfirmed that it still meets EMC directives.</li> </ol>				
	5. Specifications are subject to change without prior notice due to constant improvement in design & technology.				

<sup>»</sup> SMPS, Battery Charger, DC-DC Converter

<sup>»</sup> Protection Relays, LED Drivers, Customized Solutions



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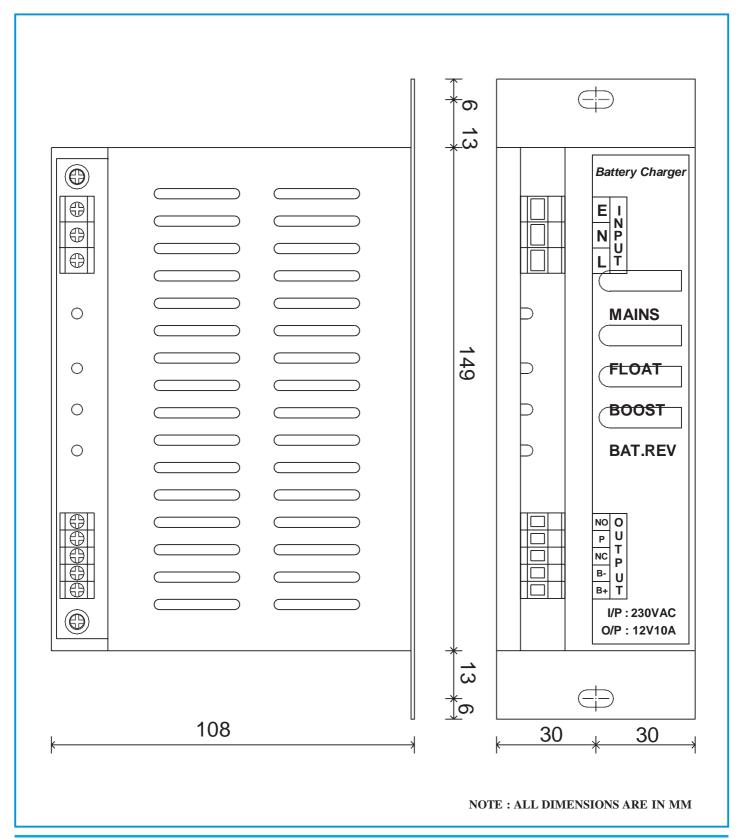
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<sup>»</sup> Solar Charge Controller / Inverter / Lights / Pump

<sup>»</sup> Protection Relays, LED Drivers, Customized Solutions » Electric