



ISO 9001: 2008

**ARTIFICIAL LIMBS MANUFACTURING CORPORATION OF INDIA**  
(A GOVERNMENT OF INDIA UNDERTAKING MINIRATNA COMPANY)  
UNDER MINISTRY OF SOCIAL JUSTICE & EMPOWERMENT  
AN ISO 9001:2008 COMPANY, G T ROAD, KANPUR- 209217  
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## NOTICE

As per instruction of competent authority, the corporation has firmed up the Technical specification for SMPS Battery Charger for 24V,33Ah SMF Batteries (12V, 33Ah 2Nos. connected in Series). The specification Firmed up by Corporation are appended herewith to this notice.

Suggestions/Comments on the above specification firmed up by corporation, if any, are invited from all the concerned within 7 days from the date of hosting of this Notice on our website for consideration by Corporation.

The observation/objections, if any, may be sent to email: manager\_dd@alimco. in latest by 15/11/2017 up to 17.30 Hrs.

**MANAGER (DD), ALIMCO, KANPUR**

**Technical Specification of SMPS Battery Charger for 24V,33Ah SMF Batteries (12V, 33Ah 2Nos. connected in Series):**

<b>A</b>	<b>Input Specification:</b>	
1.	Nominal Voltage	230V AC,1phase 50Hz
2.	Operating Voltage range	110 to 300V AC, 1 Phase 50Hz
3.	Frequency	50±3Hz
4.	Power Factor	0.85 Min @ 230V AC
5.	Efficiency	> 80%
6.	Isolation	I/P to O/P : 1.5 KV DC for One minute. I/P to Earth : 1.5 KV DC for one minute.
7.	Input Protection	Fuse, High/Low Voltage protection with auto cut-off
8.	Transient Surge Protection	Yes (Variistor) or any other component
9.	Indication	High/Low Voltage Indication
<b>B.</b>	<b>Output Specification:</b>	
1.	Purpose	Suitable for Charging of 24V 33Ah SMF Batteries (12V 33Ah SMF Batteries-2Nos. connected in series)
2.	Charging Voltage	28.0 Volt maximum
3.	Output Current	5.0 Amp (Max)
4.	Ripple	< 1% pk - pk Maximum output voltage
5.	Line Regulation	< +/- 1%
6.	Load regulation	< +/- 1%
7.	Protection	i- O/P over voltage ii- Over load iii- Short circuit iv- Battery Blocking v- Battery reverse
8.	Indication	i- Battery Charging ii- Battery Full Charge

<b>C.</b>	<b>Environmental Specifications:</b>	
1.	Operating ambient Temperature range	- 10 to 55 °C
2.	Operating Relative Humidity requirement	At least 90% RH (Non Condensing) at 25°C
3.	Cooling	Natural / Forced air cooling
<b>D.</b>	<b>Mechanical Test requirement</b>	
1.	Mechanical Shock and Vibration Test	Up to 2G.
<b>E.</b>	<b>Cable and connector Specification</b>	
1.	Input Side	3 – Pin Plug Top of at least 6 Amp Rating with 3core copper cable length at least 2 Meter.
2.	Out Put Side	3- Pin IEC C14 Male connector of At least 6 Amp current rating with 1meter length cable (excluding connector) of cross sectional area 1.5 Sq. mm, ISI marked, IS694.
<b>F.</b>	<b>General Requirement</b>	
	<ul style="list-style-type: none"> <li>i- Current &amp; Voltage rating Safety factor shall be at least 1.5 times for power semiconductor devices.</li> <li>ii- Manufacturer should include cycle by Cycle Primary current protection to prevent potential Damage.</li> <li>iii- Complete cover shall be good quality non conducting / Non conducting coated and non-breakable material and all the live part shall be covered to provide protection against electric shock.</li> <li>iv- Full Load Test report of each Battery Charger in case of supply Lot.</li> <li>v- Bilingual (Hindi &amp; English) Operation Manual with each Battery Charger</li> <li>vi- Packing shall be individual and able to withstand/ sustain during transportation without any damage to Charger (preferable in corrugated box with thermocol side support or any better material side support to avoid damages)</li> <li>vii- Manufacturer shall provide their own detail on the TOP or BOTTOM of Product for identification purchase including Serial No., Date, Month and Year of manufacturing.</li> </ul>	

<b>G.</b>	<b>Test Report:</b> I- Test report certificate from Govt. Lab / NABL accredited Lab.
<b>H.</b>	<b>Warranty:</b>  Warranty 12 Month from date of receipt of Material at ALIMCO Kanpur store. Post Warranty services shall be provided by manufacturer.