

Battery Charger Inspection Checklist (110V, 30/50A)

1). General Information

Parameters	Data
Supplier	
Manufacturer	
Project	
Order No.	
Quantity	
Rating / Type	110V Battery Charger (Float - 30A, Boost - 50A) for 250Ah Battery
Drawing / Document No.	

2). Constructional & Mechanical Features

S.No	Parameter	Acceptable Design Data	Verification Status	Remarks
1	CRCA Sheet Thickness	3mm (Load bearing), 2mm (Others)		
2	Paint Shade	Light Grey, IS:5 - Shade 631		
3	Degree of Protection	IP42 (Indoor)		
4	Mounting Type	Free-standing, Floor-mount		
5	Cooling Method	Natural Air Cooled		
6	Operation Temperature	Continuous at 50°C		
7	Doors	Hinged with 3-point locking		
8	Door Width	As per drawing		
9	Louvers with Wire Mesh	Provided		
10	Foundation Details	Cable cut-outs & bolt pockets		

3). Electrical Inputs & Outputs

S.No	Parameter	Acceptable Design Data	Verification Status	Remarks
1	AC Input Supply	415V \pm 10%, 3-Ph, 50Hz \pm 3%		
2	Float Output	117V-126V DC @ 30A		
3	Boost Output	100V-148V DC @ 50A		
4	Busbars	Copper Electrolytic		
5	Wiring	1.1kV FR C1 copper conductors		
6	Earthing	Copper Earth Busbar		

4). Metering & Controls

S.No	Parameter	Acceptable Design Data	Verification Status	Remarks
1	Ammeters	Float, Boost, Battery, Earth Leakage		
2	Voltmeters	Input AC, DC Output		
3	Potentiometers	Float/Boost Auto & Manual Adjust		
4	Selector Switches	Mode, Voltage, CC/CV, Diode		
5	Push Buttons	Alarm Accept / Reset		

5). Indicators & Alarms

S.No	Indicator	Type	Phase Indication	Verification Status	Remarks
1	AC ON (Float/Boost)	LED	All 3 Phases		
2	DC ON (Float/Boost)	LED	-		
3	Feeder ON (10 Nos.)	LED	-		
4	Alarms	LED/Annunciation	See below		

Alarm List:

1. AC Mains fail
2. Charger Failed (Float/Boost)
3. Battery Overvoltage
4. Load Undervoltage
5. Earth Leakage
6. AC Phase Failure (Float/Boost)
7. Phase Sequence Reversal

6). Mechanical Views & Drawings

Drawing	Description
GA Drawing	Height: 1850 mm, Width: 1450 mm, Depth: 700 mm
Top View	Gland Plate, Cable Entries
Rear View	Hinged Doors with Lock
Side View	Louvers, Mesh
Sectional View	Component Layout
Foundation Drawing	Cable & Bolt Holes

7). Name Plate Details

Parameter	Specification
Make	
Type	
Input	415V \pm 10%, 3-Ph, 50Hz \pm 3%
DC Output	Float: 117-126V @ 30A Boost: 100-148V @ 50A
Sr. No.	
Year of Manufacturing	
Weight	
A/T No.	
Ownership	Property of _____

8). Electrical Schematics

Drawing	Available (Y/N)
AC & DC Circuit	
Boost Charger	
Float Charger	
DC Distribution	
Annunciation	
Control Circuit	
Terminal Block Layout	
Bill of Material (BOM)	

9). Type Tests (As per Standards)

S.No	Test	Acceptance Criteria	Status
1	Voltage Regulation Test	Within Limits	
2	Load Limiter Test	As Designed	
3	Efficiency Test	≥ Specified Value	
4	High Voltage Test	Pass (Withstand Voltage)	
5	Temperature Rise Test	Below Max Temp	
6	Short Circuit Test	Safe under Fault	
7	IP Protection Test	IP42	
8	Ripple Test	As per Design (Oscilloscope)	
9	Temp Compensation	Auto Control Demonstrated	