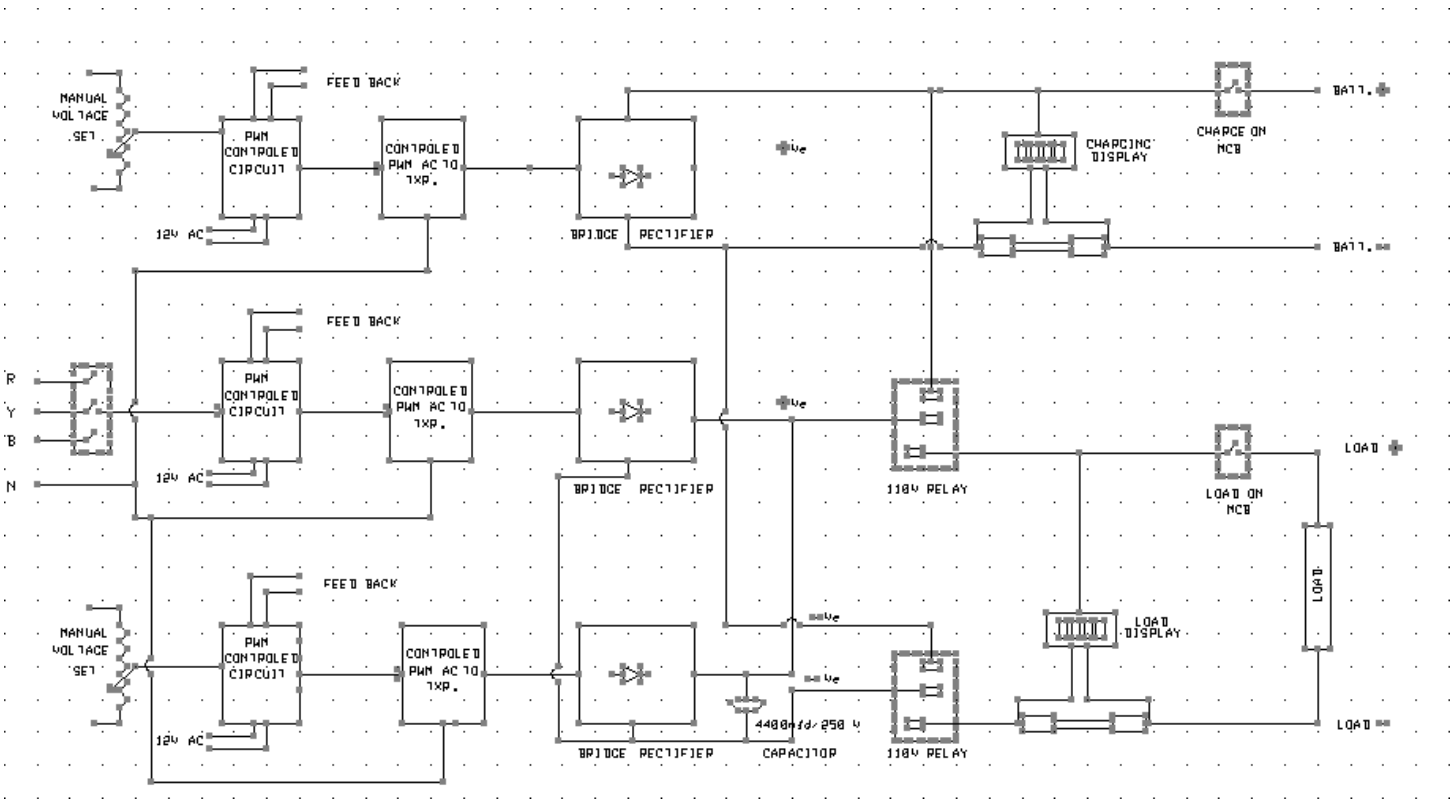
SHREYA POWER AND TECHNOLOGIES

73/1,Uday Sankar Sarani, Kolkata-700033
Phone: 9874077191; 9874454637
Website: www.shreyapower.org
MSME UNIT, ISO Certified Company, CE Certified Products

Technical Datasheet: 110V-50Amp FCBC 3∅/1∅

AC Input with wide operational Range		
Nominal Voltage	415 VAC ±10%, 4 wire 3Ø/// 240V AC ±10%, 3 wire 1Ø	
Frequency	50Hz ± 5%	
DC output with an adjustable Range		
Voltage	110V	
Float Voltage Adjustment	124V DC (±10% of nominal or as per customer's specific requirement)	
Boost Voltage Adjustment	131V DC (±10% nominal or as per customer's specific of Requirement)	
Current	Range up to 0-50A as per current requirement	
Current Adjustment	As per customer requirement (Optional)	
Ripple	< 3%RMS	
Regulation	Within ±1% according to variation of input AC main supply	
Rectifier Bridge	Full wave full controlled	
Efficiency	Better than 80% at full load @ nominal AC input	
Noise Level	<65dBA for natural cooling	
General		
Configuration	Float cum Boost Battery Charger – Single Load – Single Battery Bank	
Protection	AC input circuit Breaker DC output circuit breaker Battery charging current limit Short circuit protection	
Meters	Digital meters	
Indication & Alarms (Indications through LED's & Digital Meters)	Indication	
	Input ON Charger ON Float ON Boost ON	
Switches & Control	Float voltage POT Inbuilt in Circuit Board Boost voltage POT Inbuilt in Circuit Board Charger ON / OFF	
Battery compatible with	VRLA & TUBILAR Battery	
Cooling	Natural	
Temperature range of operation	0 deg C to 45 deg C	
Applicable Standard	ISO 9001: 2015 // CE Certified	
Storage Temperature	-10to 50 deg C	
Humidity	0 to 95 % RH Non condensing	
Altitude	Up to 1500 MSL	
Routine Test	Visual & Dimensional check -Insulation resistance test High Voltage test-Measurement of Voltage Regulation -Measurement of Ripple Charger Functional checks-Heat run test (8 hrs) Efficiency & Power factor measurements	

Schematic Diagram: 110V-50Amp FCBC 3Ø/1Ø



Simple Operation Steps

Step 1: Connect Input Wires R, Y, B, N to front bottom connectors & Body Earth at front.

Step 2: Connect Battery Cables to DC Input connector at front (Marked)

Step 3: Connect Load cable to DC Output connector at front (Marked)

Step 4: Battery MCB ON

Step 5: Mains MCB ON

Step 6: Load MCB ON

During float charging the charger, battery and load are connected simultaneously. The charger operates off the normal power supply which provides current to the load during operation. In the event of normal power supply failure, the battery provides backup power until the normal power supply is restored.

Float mode is where the voltage on the battery is maintained at approximately 2.25 volts per cell, or 13.5 volts for a 12V battery. This voltage will maintain the full charge condition in the battery without boiling electrolyte or overcharging the battery.

The recommended constant float voltage is **2.25 – 2.30 volts per cell**. Maintaining this float voltage will allow the battery to define its own current level and remain fully charged without having to disconnect the charger from the battery.