

**SWITCHING POWER SUPPLY CUM CHARGER**  
**13.5V/10A**

1. GENERAL

1.1 SCOPE: This specifications defines the performance characteristics of 13.5V,10 Amps Equipment supply cum Battery Charger operating on single phase AC supply.

2. INPUT REQUIREMENTS

- 2.1 PHASE : Single phase,2 wire and ground
- 2.2 INPUT FREQUENCY : 50 Hz  $\pm$  03 Hz.
- 2.3 INPUT VOLTAGE : AC 170V rms to 270V rms

3. OUTPUT CHARACTERISTICS

- 3.1 OUTPUTS : Equipment supply -13.5 V at 10 Amps  
Battery supply - 13.5V at 05 Amps  
( Maximum output power limited to 150W)  
(Battery is to be directly floated across the load ,however it has separate terminals. Battery is connected to load through a fuse and a reverse battery protection circuit.)
- 3.2 OUTPUT VOLTAGE REGULATIONS : Load output (with battery disconnected) within  $\pm$ 2% with battery connected will follow the battery voltage.
- 3.3 RIPPLE & NOISE : Ripple on output load terminal (battery disconnected) will be less than 1%. Noise will be less than 2% P-P.
- 3.4 BATTERY CHARGING: Battery charging will take place with constant voltage constant current .Maximum charging current of battery will be, limited to 05 Amps. Maximum charging voltage to be 13.5V.

4. PROTECTIONS

- 4.1 OUTPUT OVER VOLT- AGE PROTECTIONS : PSU to trip on over voltage condition (above 15V) and resume normal conditions on removal of OV and AC power recycling.
- 4.2 OUTPUT OVER LOAD AND SHORT CKT PROTECTION : Output folds back on over power and resumes normal operation on removal of over power conditions. On short circuit ,power supply goes huck up mode. It resumes normal operation on removal of the short.

## SPECIFICATIONS

## NATIONAL CONTROLLING EQUIP. INDUS.

### POWER SUPPLY CUM CHARGER 13.5V/10A

4.3 BATTERY REVERSE POLARITY PROTECTION : On reverse polarity, a fuse of 10A rating mounted on the rear panel will blow isolating battery (12V/120 AH) from the equipment.

#### 5. INDICATIONS

5.1 POWER ON INDICATOR : Will be ON when AC is available.

5.2 BATTERY ON INDICATOR : Will be ON when Battery is supplying power to the Radio.

6. COOLING : Free air convection cooling

#### 7. ENVOIRMENT

7.1 TEMPERATURE : Operation 0 to +50 C, Storage -5C to + 60 C

7.2 HUMIDITY : Operating 5% RH to 85% RH non-condensing.  
Storage 5% RH to 85% RH non-condensing.

#### 8. PRODUCT SAFETY

8.1 DI-ELECTRIC VOLTAGE : 1.5KV AC rms at 50 Hz for one minute  
(trip WITHSTAND Test current limit set at 5 mA)

8.2 INSULATION RESISTANCE : 50 Mega Ohms at 500 VDC at less than 65%  
1) between INPUT and CHASSIS  
2) between INPUT and OUTPUT

#### 9. ENCLOSURE

9.1 DIMENSIONS : W 190mm H 75mm D 160mm

9.2 WEIGHT : Approx. 2.5 kg.