

RCPU – Rectifier cum Charger Power Unit

The RCPU is a fully regulated switching power converter, designed for charging of 12 / 24 Volt batteries for vehicles, marine, military, PLC, and cell tower applications and simultaneously drive system load by providing un-interrupted and stable DC output power supply. These are reliable, robust AC to DC battery chargers with high power load output. The RCPU is immune to vibration and shock, and come with heavy duty, water proof cabinet, suitable for military grade applications.



The RCPU can charge all types and ratings of Nickel Cadmium and sealed and vented lead acid batteries. It can also drive system load of up to 150W simultaneously. RCPU comes with three variants of output DC voltages: 12V, 24V, 48V.

Application

- Fully automatic AC driven power supply unit for telecom products, radios and radars.
- Intelligent Battery Charger for all types and ratings of batteries.

Functionality

- Battery charging and power supply using high efficiency power modules.
- Batteries are first charged at constant current and then current gradually decreases towards final battery voltage.
- Auto sensing of battery voltage connected to the RCPU and charging voltage selection accordingly.
- Micro-controller for display, selection and diagnostics of various voltages and currents.
- AC and DC filters for EMI / EMC protection and compliances.
- Rugged and light weight construction.

Environmental Data

Operating Temperature	-30°C to +55°C
Storage Temperature	-40°C to +°C
Relative humidity	0 - 95 %
Driving rain	100 mm/hour

References

MIL-STD-810G	Ruggedization
MIL-STD-461E	EMI/EMC
EN-61000-4-2	ESD
EN-61000-4-5	Lightning

Accessories

AC and DC Power Cables
Operator Manual

Features

- Heavy Duty, High Current Switch mode AC Battery Charger
- Very High efficiency (>90%)
- Excellent line and load regulation
- Wide AC input voltage range
- Auto sensing of 12V / 24V battery connected
- Soft start
- Long term short circuit protected
- Efficient Thermal management
- Overheating cutoff
- Low out ripples
- OLED display for on line monitoring

Power Supply

AC Supply operation	140V - 265V AC
Battery Operation	10V– 33V DC
Power (load)	Up to 150W
Battery Charging	13.2V, 0 to 14A 26.4V, 0 to 7A

Variants

RPU12112	12V DC O/P, 150W
RPU12124	24V DC O/P, 150W
RPU12148	48V DC O/P, 150W

Physical Parameters

Dimensions (LxWxH)	486x222x92 mm
Weight	Less than 8 Kg