



Unit 111, Dunston Innovation Centre  
 Chesterfield, S41 8NG, U.K.  
 T e l : + 44 (0) 1246 452909  
 F a x : + 44 (0) 1246 452942  
 W e b : w w w . e t p s . c o . u k  
 E m a i l : s a l e s @ e t p s . c o . u k  
 S a l e s : 0 8 0 0 6 1 2 9 5 7 5

# REC-500-230-54

# AC/DC Rectifier

## Description

This compact rectifier has been designed to work with -48Vdc battery supported Telecom Systems. Measuring only 19" x 1U x 244mm (WxDxH) the unit incorporates 2 x 250W plug-in rectifiers and an internal output distribution system that provides five separate output terminals. For extra protection each output is fitted with an electronic fuse that can be adjusted via a front panel mounted rotary selector switch with adjustment between 0-8A. With two separate AC input connectors allowing the unit to be powered by two separate phases the output can be assured in the event of a single phase being lost. The system can be configured for a -60Vdc battery system by a simple jumper change in the power modules, which will then provide 67Vdc output.



- Internal DC distribution 5 O/P's
- Selectable current limit
- Redundant DC output
- Redundant AC Input
- Hot Swap Modules
- 19" x 1U x 244mm

## Selection Table

Part Number	Power	Output Voltage	Current	Dimensions (Width x Height x Depth)	Weight
REC-500-230-54	500W	-54VDC	8.6A	19" x 1U x 244mm	4.3kgs
REC-250-230-54	250W	-54VDC	4.3A	19" x 1U x 244mm	2.8kgs



sales@etps.co.uk  
0800 612 95 75

## Technical Data

### General

Electrical Safety	EN 60950
Protection Class	1
Isolation Group	Pollution Degree 2
Inflammability	Complies with UL 94V0

### Input

Mains Voltage	230VAC (1 or 2 Phases)
Voltage Range	197 - 265VAC
Frequency Range	45 - 66Hz (sinewave)
Connection Terminals	2 x IEC Inlet, EN-60320

### Mechanical Data

Casing	19" rack mount (Sheet steel, zinc plated)
Sub Rack Dimensions	19" x 1U x 244mm (W x H x D)
250W Module Dimensions	130 x 40 x 160mm (W x H x D)
Module Carrier Weight	Approx. 4.3kg (full rack)
250W Module Dimensions	Approx. 1.5kg
Protection	IP 20
Cable Access	Rear Side
Cooling	Forced ventilation, temperature controlled fan in each 250W module

### Output

DC Voltage	-67DC, positive pole is connected with chassis/protective earth
Output Current	3.7A per 250W module
Output Power	Up to 500W, module power size = 250W, without derating up to 50°C
Overload	1.2 x I <sub>NOM</sub>
Efficiency	> 90%
Mains hum at full load	=100mVpp at 197VAC input
Ripple at full load	=200mVpp (20MHz)
Mains Regulation	? 0 . 1 ( 1 9 7 / 2 6 4 V A C )
Load Regulation	=1% (10/90% load jump)
Recovery Time	=1ms (10/90% load jump)
OVP Threshold	75VDC
TK Output Voltage	=0.05%/C
Current Limitation	Constant current, short circuit proof
Parallelling Function	2 x 250W module in one module rack, separate redundant mains input lines, (A +B system), AC 2 has priority
Number of Outputs from module rack	5 outputs from internal current distribution
Output Protection	Adjustable electronic fuse , 0 - 8A via rotary selector, located at the front panel

### Environmental Conditions

During Operation	-5°C to +50°C (non condensing)
During Transport/Stocking	-40°C to +85°C (in original packaging)
Relative Air Humidity	0% to 95% (relative humidity)
Maximum Operation Altitude	2000 metres

### EMC

Emission	EN 50081-1/2, EN 55022B
Immunity	EN 55024, EN 61000-6-2 (Industrial Areas)
Burst (EFT)	4kV, 50 , direct coupled
Surge	2kV
ESD	15kV air, 8kV conducted

### Other

Reliability	Unit life = 8 years, MTBF = 50 y
Alarm Contact	Potential free, general alarm
Visual	Each 250W module: LED (green) power supply ok, each DC output in the module rack: LED (red) status of electr. fuses
Connection Terminals	IEC inlet connector, EN60320 pluggable, screw clamps, Phoenix combicon, 3 pole connector, type phoenix MC 1.5/17-G3 5/1.5mm <sup>2</sup>
Warranty	2 Years