

INPUT

VOLTAGE	220 (187 to 255), Single Phase
FREQUENCY	45 to 65Hz
CURRENT	30 A RMS AT 220 VAC Sinusoidal Waveform 35 A RMS Maximum at 187VAC
POWER FACTOR	>0.99 at Full Load THD<8% at full load Complies with IEC555-2
EFFICIENCY	91% typical at full load >90% above 25%full load
PROTECTION	internal current limit internal fuse protection
EMI	Complies with dispr 22 class B
INRUSH	<9 A peak for 220 VAC
SOFT START	Output current ramp-up time 5 SEC

OUTPUT

VOLTAGE	Float: Adjustable 48 to 58V Equalise: Adjustable 50 to 60V Initial: Adjustable 20 to 65V
CURRENT LIMIT	Adjustable 4 to 112A
REGULATION (STATIC)	Line: $\pm 1\%$ Load: $\pm 0.5\%$
REGULATION (DYNAMIC)	$\pm 0.5\%$ for 10% to 90% step load change $\pm 1\%$ Within 2 msec of step change
NOISE	<2 MV RMS psophometric weightin <10 MV RMS 10KHz to 50MHz <100 MV peak to peak
LOAD SHARING	Active current sharing better than $\pm 3\%$ at full load
PROTECTION	HRC fuse at output Over voltage only faulty unit shuts down Over current can sustain short circuit at output terminals indefinitely Over temperature gradual reduction of current limit it heat-sink temperature exceeds pre-set limit

CONTROLS

FRONT PANEL	Menu, INC, DEC and Enter
PUSH-BUTTONS	Push-buttons for: Entering configuration into menu Scrolling through menu Charging values and exitin menu

MONITORING

OUTPUT VOLTAGE & CURRENT	Normally displayed on front panel alpha-numeric LCD display Accurcy $\pm 0.5\%$ at full load
LED INDICATORS	Ac Power : green LED Unit off : RED LED Alarm : amber LED
ALARMS	codec alarm and status indicators on alpha numeric LCD disply 18 diffrent alarm and status conditions
REMOTE ALARMS	All alarm statesare transmitted to CSU via the digital Communications link (DCL)
OUTPUT CURRENT	Load current value is transmitted to CSU via digital Communication link

REMOTE CONTROLS

RECTIFIER INHIBIT	Rectifier can be inhibited by a signal from CSU transmitted via DCL
EQUALISE MODE	Equalise mode in initiated by a signal from CSU transmitted via DCL
EXTERNAL VOLTAGE CONTROL (EVQ)	Optically coupied pwm signal from CSU usedto control Rectifier float and equalise voltage to achieve temperature compensation battery recharging current limit and active current sharing Over temperature gradual reduction of current limit it heat-sink temperature exceeds pre-set limit

ENVIROMENTAL

COOLING	Forced convection ----- removable front panel filter
TEMPERATURE	Operation range 0 to 50°C
HUMIDITY	0 to 90% non-condensing

MECHANICAL

DIMENSIONS	Heght 88mm (2 rack units) Width 434mm (19 rack) Depth 430mm
MASS	17 Kg

SMPDS

48 volt 112 Amp

The most compact pectifier with the latest technology in the field of power electronics with outstanding performance and feature, including

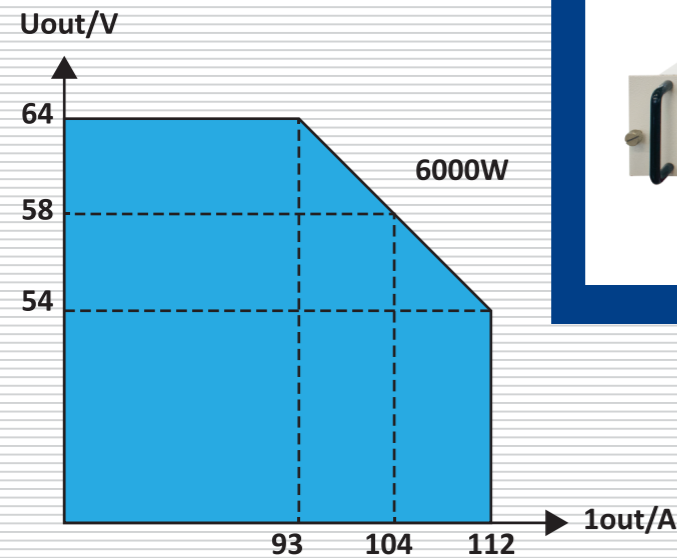
- Extremely Low weight & volume
- High density power
- Over 6000 W of output power
- T.H.D less then 8%
- Power factor greater than 0.99
- High efficiency
- Over 91% full load
- Single phase input
- Wide input range 170-275 Vac
- Real Hot Plug
- Rear push into plug in
- Connection of AC, DC & Communications link
- Active and passive load sharing
- Microprocessor Based
- Ability to control the rectifier via public telephone line





- The switched mode rectifier SMPS 48V-6000W is designed especiall for telecommunication power supply.
- This rectifier can be operated either stnad alone or in parallel connection with other SMPS 48V-6000W rectifiers.
- The rectifiers SMPS 48V-6000W has a constant output power limitation feature and can supply up to 6000W at specified output voltage range.

output characteristics



- The modules are equipped with thermal overload protection circuitry and the cooling is based on foeced convection.
- In the event of temperature rise over 80°C, output current is reduced linearly if the cooling system in faulty, the current reduction continues as low as 12A.
- Owing to the output relays and its monitoring circuitry. after turning on rectifiers, the output is kept disconnected before it riches to the battery Voltage level This is because arcing can occur when rectifier output capacitors are charged suddenly to the battery voltage level at the time when the battery string is connected o the output bus of rectifier rack.

There are two types of racks already being manufactured by P.S.P

Type I Rack

- Cotains maximum of twelve rectifrs chargers which can supply up to 72kw of output power at 1350 ampers it has both AC & DC boards.



Type II Rack

- This type of rack is also known as plant rack. witch can contain up to 24 rectifiers/chargers of maximum 144kw at 2700 Ampers it has separate AC & DC and battery boards. Type II rack can be exoanded up to 36 rectifiers Located in four racks which all being controlled by one MUCS. The total output power can be as high as 4x72kw

- Both types I & II racks have the following dimensions
H= 1800 mm
W= 600 mm
D= 600 mm
- Rectifiers can be controlled by a PC or public telephone line via RS232 port located in the rack tray in the front panel of type I & II.
- Type II racks are compatible with PSP plant racks already in operation in the iranian telecommunication sites.

