

TECHNICAL SPECIFICATIONS
MODEL-REN P1P320024SOLAR
FHUPS0581X0-R.S SOLAR 3000VA-24V-50A SMART EP

S.No	TECHNICAL PARAMETERS	SPECIFICATIONS
A	BATTERY MODE	
A.1	No Load Current @ Switch OFF	$\leq 240 \text{ mA}$
A.2	Battery Voltage @ No LOAD	24V
A.3	Output Voltage @ No LOAD	$225 \pm 7\text{V}$
A.4	Output Frequency	$50 \pm 1\text{Hz}$
A.5	Battery Current @ Full LOAD	$100 \pm 2 \text{ Amp.}$
A.6	O/P Current @ Full Load	$9.5 \pm 0.2 \text{ Amp}$
A.7	Fan Run @ Very First Start Up	Fan Operates Properly
A.8	Harmonic distortion in O/P wavefrom(Resistive load)	$\leq 3\%$

B	UPS MODE	
B.1	Low Cut With Phase Match	$180 \pm 10\text{V}$
B.2	Low Cut Recovery With Phase Match	9-12V Hysterisis from $>$ Low Cut Voltage
B.3	High Cut With Phase Match	$270 \pm 10\text{V}$
B.4	High Cut Reovery With Phase Match	9-12V Hysterisis from $<$ High Cut Voltage
B.5	Change Over Time From Mains To UPS	$\leq 10\text{msec}$
B.6	Change Over Time From UPS To Mains	$\leq 8\text{msec}$

C	NORMAL MODE	
C.1	Low Cut With Phase Match	$90 \pm 10\text{V}$
C.2	Low Cut Recovery With Phase Match	9-12V Hysterisis $>$ Low Cut Voltage
C.3	High Cut With Phase Match	$290 \pm 10\text{V}$
C.4	High Cut Reovery With Phase Match	9-12V Hysterisis $<$ High Cut Voltage
C.5	Change Over Time From Mains To UPS	$\leq 20\text{msec}$
C.6	Change Over Time From UPS To Mains	$\leq 10\text{msec}$

D	CHARGING MODE	
D.1	Low Charging Current @ 220V AC (NC)	$17.0 \pm 1.0\text{A}$
D.2	High Charging Current @ 220V AC (HC)	$24.0 \pm 1.0\text{A}$
D.3	Boost Charging Voltage (HC/NC)	$28.8 \pm 0.4\text{V}$
D.4	Float Charging Voltage (HC/NC)	$27.4 \pm 0.4\text{V}$

E	Solar Charge Controller With Real Time Clock	
E.1	Solar Charge Controller	50 Amps.
E.2	Charge Controller Type	PWM based
E.3	Max PV input Power	2100 Watt
E.4	Maximum PV (Voc)	50 V
E.5	Solar Input Voltage range (Vmpp)	30-42V
E.6	Solar Battery Charging Current (settable)	40 Amps.(default)

F	PROTECTIONS	
F.1	Over Load Protection with Alarm	Over Load Shut Down After 6 Auto Retries
F.2	Over Load Shut Down Reset	Through ON/OFF Switch or Mains
F.3	Battery Low Alarm	$10.8 \pm 0.2\text{V}$ (Per Battery)
F.4	Battery Low Protection	Battery Low Shut Down After 4 Auto Retries

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F.5	Battery Low Shut Down Reset	Through ON/OFF Switch, Mains or solar
F.6	Over Temperature Protection With Alarm	should be OK(95 ± 5 °C);
F.7	Short Circuit Protection (Battery Mode)	Should be functional
F.8	Short Circuit Retry (Battery Mode)	One
F.9	Short Circuit Reset (Battery Mode)	Through ON/OFF Switch or Mains
F.10	Mains Fuse Trip	Should be functional
F.11	P.V. REVERSE PROTECTION WITH ALARM	AVAILABLE

Accessible Parameters Via Operating Display	
1. AC Mains voltage	7. Faults Status
2. O/P Load in %	i) Overload
3. Battery input voltage	ii) Short Circuit
4. Battery Charging/ Discharging current (Bar Graph)	iii) Fuse Trip (OFF and ON the System after reset the resettable switch to reset the protection)
5. Solar KWH used	iv) Over Temp.
6. Solar Status	v) Empty 'Battery' Blinking
	vi) PV Reverse Protection
Logic:	Smart Solar Selection Logic based on built in Real Time Clock (SL-1,SL-2,SL-3).
	Provision for Charging by Solar Power Only.
	Provision for setting Critical Parameters of Solar.
	Ability to provide rated output power directly from solar panels (if solar is available) in addition charges the battery
	Intelligently give the priority to solar power and take the balance from Mains.

Note :- Power Saver Mode Enable after 105 Minute of Battery Full Charge .