TECHNICAL SPECIFICATION
MODEL-REN M1P180012SOLAR
FHUPS0643X0-1500VA-12V-100A MPPT-L SMART

S.No	TECHNICAL PARAMETERS	SPECIFICATIONS
A	**BATTERY MODE**	
A.1	No Load Current (Switch OFF)	≤ 180 mA
A.2	Nominal Battery Voltage	12V
A.3	Output Voltage at No LOAD	225± 7 V
A.4	Output Frequency	50 ± 1 Hz
A.5	Fan Run @ every First Start Up/ON-OFF switch ON Time	Fan Operates Properly (Fan Runs for 3 sec only)
A.6	Discharging Current @Full Load	100± 1 Amp
A.7	O/P Voltage THD(Resistive Load)	≤ 3%

B	UPS MODE	
B.1	Low Cut With Phase Match	180 ± 10V
B.2	Low Cut Recovery With Phase Match	9-12V Hysterisis from > Low Cut Voltage
B.3	High Cut With Phase Match	270 ± 10V
B.4	High Cut Reovery With Phase Match	9-12V Hysterisis from < High Cut Voltage
B.5	Change Over Time From Mains To UPS	≤ 10msec
B.6	Change Over Time From UPS To Mains	≤ 10msec

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

D	CHARGING MODE	
D.1	Low Charging Current @ 220V AC (NC)	19 ± 1.0A
D.2	High Charging Current @ 220V AC (HC)	26 ± 1.0A
D.3	Boost Charging Voltage (HC/NC)	14.4 ± 0.2V
D.4	Float Charging Voltage (HC/NC)	13.7 ± 0.2V

E	Solar Charge Controller With Real Time Clock	
E.1	Solar Charge Controller	MPPT CHARGE CONTROLLER (100 Amp)
E.2	Charge Controller Type	SINGLE INPUT-INTERLEAVED MPPT
E.3	Max PV input Power	1100-1350 Watt
E.4	Max Solar Input Voltage (Vmp)	25-50V
E.5	Max Solar DC Input Voltage (Voc)	60V
E.6	Max Solar Input current	40±1Amp
E.7	Solar Battery Charging Current (settable)	40 Amps.(default) (Settable 5A to 50A)

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±0.2V
F.4	Battery Low Protection	Battery Low Shut Down After 4 Auto Retries
F.5	Battery Low Shut Down Reset	Through ON/OFF Switch , Mains or Solar
F.6	Over Temperatrure Protection With Alarm	should be OK(95 ± 5 °C);

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F.7	Short Circuit Protection (Battery Mode)	Yes
F.8	Short Circuit Retry	One
F.9	Short Circuit Reset	Through ON/OFF Switch or Mains
F.10	Mains Fuse Trip Protection	Should be functional
F.11	P.V. Reverse Protection	Available

Accessible Parameters Via Operating Display		
1. AC Mains voltage		7. Warnings or Protections 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 resetable 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,SL-4).	
	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.	