EAPRO
INNOVATING TECHNOLOGY

TECHNICAL SPECIFICATION
MODEL-REN M1P650048SOLAR
FHUPS0645X0-5350VA-48V-105A MPPT GT-C

S.No	TECHNICAL PARAMETERS	SPECIFICATION
A	**BATTERY MODE**	
A.1	No Load Current (Switch OFF)	≤ 250 mA
A.2	Nominal Battery Voltage	48V
A.3	Output Voltage at No LOAD	230 ± 3% V
A.4	Output Frequency	50 ± 1Hz
A.5	Fan Run @ every First Start Up/ON-OFF switch ON Time	Fan Operates Properly (Fan Runs for 3 sec only)
A.6	Output AC Current @ Full LOAD	19.5 ± 0.5A
A.7	Battery Current @ Full LOAD	103 ± 1 Amp.
A.8	Harmonic distortion in O/P waveform(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	100 ± 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 Inverter	≤ 40msec
C.6	Change Over Time From Inverter to Mains	≤ 10msec

D	CHARGING MODE	
D.1	Low Charging Current @ 220V AC (NC)	18 Amp± 1 Amp
D.2	High Charging Current @ 220V AC (HC)	24 Amp± 1 Amp (Default)
D.3	Boost Charging Voltage (HC/NC)	14.4 ± 0.2V (per Battery)
D.4	Float Charging Voltage (HC/NC)	13.7 ± 0.2V (per Battery)

E	Solar Charge Controller With Real Time Clock	
E.1	Solar Charge Controller	MPPT CHARGE CONTROLLER (105A)
E.2	Charge Controller Type	SINGLE INPUT - INTERLEAVED MPPT
E.3	Max PV input Power	4900-5360 Watt
E.4	Max Solar Input Voltage range (Vmpp)	68V-150V
E.5	Max Solar DC Input Voltage (Voc)	195V
E.6	Solar Battery Charging Current (settable)	40 Amps.(default) Setable from 5 to 50 Amps for Battery
E.7	Max. Input Solar Current	40 A

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 (per Battery)
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);
F.7	Short Circuit @ Mains Mode	Mains MCB trip
F.8	Short Circuit Protection (Battery Mode)	Yes
F.9	Short Circuit Retry	One

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F.10	Short Circuit Reset	Through ON/OFF Switch or Mains
F.11	Mains MCB Trip	functional
F.12	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) AC MCB Trip (off and on the system after reset the MCB 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.	

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