



SOLAR PCU

with
built-in AVR

MPPT
TECHNOLOGY



60*
Months
Warranty

PRODUCT FEATURES & BENEFITS

	FEATURES	BENEFITS
	Built-in Automatic Voltage Regulator (AVR)	Suitable even for voltage fluctuations
	Highly efficient Maximum Power Point Tracking (MPPT) Technology used	Tracks maximum power and yields higher output from solar PV, reduces electricity bill
	Pure Sine Wave Output	Optimises life of appliances / gadgets
	Intelligent Power Management System (IPMS)	No manual intervention required to enhance solar power usage, thereby reducing electricity bill
	Sleep mode gets activated under no load condition	Minimizes electricity consumption, thereby reducing electricity bill
	Intelligent battery charging technique	Suitable for ULM / Tubular / SMF Lead acid batteries
	Smooth transition during change over	Ensures no disturbance to electronic / electrical appliances
	Protections against battery / Solar PV reverse polarity, Spikes & Surges, Double phase and phase reversal	User-friendly fault proof installation and commissioning
	Easy wall-mount installation	Resulting in reduced floor space
	LED and LCD display	User-friendly indications of system operation along with Instant & Cumulative power generation details

TECHNICAL SPECIFICATIONS

	Parameters/Ratings	0.5kW	0.8kW	1.0kW	2.0kW
INPUT (Through Grid)	Grid Supply (Phase)	1Ø	1Ø	1Ø	1Ø
	Operating Voltage(V)	145 - 275	145 - 275	145 - 275	145 - 275
	Frequency (Hz)	50 ± 5	50 ± 5	50 ± 5	50 ± 5
	Power factor	> 0.9	> 0.9	> 0.9	> 0.9
BATTERY CHARGING (Through Grid)	Nominal Battery Voltage(V)	24	24	24	48
	No of Batteries (12V)	Two	Two	Two	Four
	Recommended AH Capacity	70-200AH	70-300AH	70-300AH	70-300AH
	Float Charging Voltage(V)	27.6 ± 0.2V (TUB) 27.2 ± 0.2V (SMF)	27.6 ± 0.2V (TUB) 27.2 ± 0.2V (SMF)	27.6 ± 0.2V (TUB) 27.2 ± 0.2V (SMF)	55.2 ± 0.2V (TUB) 54.4 ± 0.2V (SMF)
	Boost Charging Voltage(V)	28.8 ± 0.2V (TUB) 27.8 ± 0.2V (SMF)	28.8 ± 0.2V (TUB) 27.8 ± 0.2V (SMF)	28.8 ± 0.2V (TUB) 27.8 ± 0.2V (SMF)	57.6 ± 0.2V (TUB) 55.6 ± 0.2V (SMF)
	Low Battery Voltage Cut-off(V)	21.6 ± 0.2V	21.6 ± 0.2V	21.6 ± 0.2V	43.2 ± 0.2V
	Max. Grid Charging Current (A)	10 ± 1A	20 ± 1A	20 ± 1A	20 ± 1A
	AC-DC Efficiency	>85%	>85%	>85%	>85%
SPV CHARGING	Charge Controller Type	MPPT	MPPT	MPPT	MPPT
	Nominal SPV Input Voltage(V)	24	24	24	48
	DC Voltage Range (V)	26 - 45	26 - 45	26 - 45	52 - 90
	Float Charging Voltage(V)	27.6 ± 0.2V (TUB) 27.2 ± 0.2V (SMF)	27.6 ± 0.2V (TUB) 27.2 ± 0.2V (SMF)	27.6 ± 0.2V (TUB) 27.2 ± 0.2V (SMF)	55.2 ± 0.2V (TUB) 54.4 ± 0.2V (SMF)
	Boost Charging Voltage(V)	28.8 ± 0.2V (TUB) 27.8 ± 0.2V (SMF)	28.8 ± 0.2V (TUB) 27.8 ± 0.2V (SMF)	28.8 ± 0.2V (TUB) 27.8 ± 0.2V (SMF)	57.6 ± 0.2V (TUB) 55.6 ± 0.2V (SMF)
	Max. Charging Current	20A	40A	40A	40A
	DC - DC Efficiency	>95%	>95%	>95%	>95%
	Output Wave form	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave
PCU OUTPUT	AC output voltage (V) (No load-Full load)	230 V ± 5%	230 V ± 5%	230 V ± 5%	230 V ± 5%
	Change-over time (Grid to Inverter)	≤ 10ms	≤ 10ms	≤ 10ms	≤ 10ms
	Change-over time (PV/Battery to Grid)	≤ 10ms	≤ 10ms	≤ 10ms	≤ 10ms
	No load DC Current (A)	<1.2A	<1.2A	<1.2A	<1.2A
	No load DC Current@Sleep mode	<100mA	<100mA	<100mA	<100mA
	Output frequency (Hz)	50.0 ± 0.5	50.0 ± 0.5	50.0 ± 0.5	50.0 ± 0.5
	THD level (With Linear/Nonlinear loads)	<3%/ <5%	<3%/ <5%	<3%/ <5%	<3%/ <5%
	Surge capacity for 10 seconds	200%	200%	200%	200%
	Crest Factor	3:1	3:1	3:1	3:1
	Power Factor	0.8 to Unity	0.8 to Unity	0.8 to Unity	0.8 to Unity
	DC-AC Peak Efficiency	>85%	>85%	>85%	>85%
ENVIRONMENTAL	Operating Temperature	-5° C to 55° C	-5° C to 55° C	-5° C to 55° C	-5° C to 55° C
	Storage Temperature	-10° C to 60° C	-10° C to 60° C	-10° C to 60° C	-10° C to 60° C
	Humidity (Non condensing)	0-95%	0-95%	0-95%	0-95%
	Acoustic Noise @ 1 mtr	<40dB	<40dB	<40dB	<40dB
	Communication interface (Optional)	RS485	RS485	RS485	RS485
MECHANICAL	Enclosure Type	IP21	IP21	IP21	IP21
	Dimension H x W x D (±0.1mm)	470 x 360 x 160	470 x 360 x 160	470 x 360 x 160	470 x 360 x 160
	Weight (±5% Kgs)	20.0	20.6	21.3	29.0
GENERAL	Product Certifications	IEC 61683 for Efficiency IEC - 2(1,2,14,30) for Environmental Standards			



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Quality Systems Certified to
EN ISO 9001 : 2008
EN ISO 14001 : 2004

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