

**SOLAR MPPT PCU-VIRAJ**

**Technical Specs**

Parameters	Units	Rating						
		1KW	2KW	3KW/5KW	5KW/7.5KW	7.5KW/10KW	10KW	15KW
Model	Sunray	1KW	2KW	3KW/5KW	5KW/7.5KW	7.5KW/10KW	10KW	15KW
Operating DC Voltage	V	24	48	48	96	120	180	240
<b>SPV Parameters</b>								
INPUT VOLTAGE RANGE(MIN-MAX)	VOC	30-90	60-180	60-180	120-360	150-450	225-450	360-600
MAX PV POWER RECOMMENDED	KW	1.2	2.5	3.5/5.5	5.5/8	8/12	12	15
Max Batt Current	Amp	60	60	60	60	60	60	60
Recommended panel cell		36 cell/60cell/72cell						
<b>PWM BASED CHARGE CONTROLLER</b>								
SWITCHING ELEMENT		IGBT						
CONTROLLER		DSP						
TYPE OF CHARGER		PWM						
EFFICIENCY		95%						
Battery Charging Stages		5						
<b>Battery</b>								
Low cut off	V	10.5/Batt +/-0.1						
Low cut off recovery	v	11.5/Batt +/-0.1						
Low Buzzer	V	10.7/Batt +/-0.1						
High cut off	V	15.5/Batt +/-0.1						
High cut off recovery	v	15.0/Batt +/-0.1						
Boost Charging Volt by SPV(TUB)	V	14.5/Batt +/-0.1						
Boost Charging Volt by Grid(TUB)	V	14.0/Batt +/-0.1						
Charging current by Grid	A	10A +/- 0.5						
No Load Battery current	%	2%						
<b>Output</b>								
Output@ No load	V	230						
Output Frequency	Hz	50 +/-0.5						
Output Low retry		1 time						
Output short ckt		1 time						
<b>Grid</b>								
No of Phase		1Phase-3Wire P,N,E						
Voltage range(Inverter)	V	100-280 +/-3						
Voltage range(UPS)	V	175-255 +/-3						
Mains low recovery range	V	10						
Mains high recovery range	V	5						
Frequency range	Hz	50 +/-3						
Battery Charging Stages		5						
<b>Inverter</b>								
Switching Element		MOSFET						
Control		PWM						
Output voltage	V	220 +/-5						
Phase		1Phase-3Wire P,N,E						
Output Waveform		Sine Wave						
Frequency	Hz	50						
Changeover_INV TO MAINS	ms	<10ms						
Changeover_MAINS TO INV	ms	<10ms						
Output Power factor	Pf	0.8						
Overload	%	100-120/120-150/150-200/200-300/300-400/More than 400						
Overload retry		3						
SWITCH		System ON/OFF,HYBRID/SMART MODE SELECTION,INV/UPS SELECTION						
Indication		INV ON, BATT LOW/HIGH, OVERLOAD, SPV CHARGING, Mains ON						
Alarm		Batt Low, Overload,Charger ON,INV ON						
Protection		Overload,Short Circuit Protection,Over Voltage,SPV Surge and Transient protection (MOV Varistors),Reverse Polarity of Battery,Over temperature Protection,under voltage and over voltage Protection						
Cooling		Forced Air cooling(Temp Controlled)						
Operating Temp	C	0-50						
Operating Humidity	%	95						
Protection class		IP20						
Dimension(LXWXH)	mm	355x330x205	510x460x305	510x460x305	750x500x350	750x500x350	750x500x350	750x500x30
Wieght	kg	20	30	40	50	60	70	85