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ASPIR 
CONVEY THE **SUN POWER**



**SOLAR MPPT
SERIES PCU**

SOLAR MPPT SERIES PCU



CORE FEATURES



**CONFIGURABLE
USER SETTINGS**



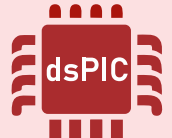
**PURE
SINE WAVE**



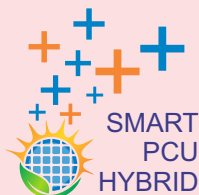
**TRUE
MPPT**



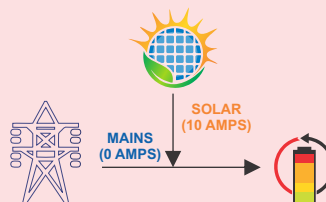
**REMOTE
MONITORING IoT**



**ADVANCED
DSP TECHNOLOGY**



**INTELLIGENT
MODES**



**AI CHARGE
SHARING**

- Big Date Big Display
- Built-in Energy Meter
- Maximized Solar Usage through Intelligent modes.
- 40% less panel required than other PCUs
- RS-232 (Industrial Standard MODBUS)
- Incorporated with Microchip and ST DSP Engines
- Safety and Protections

- IGBT based design and Fast Charging
- Wide range MPPT Input
- 6 Stage Battery Charging
- Multiple Battery Selection
- Sleek & Aesthetic design
- Works as standalone Solar Inverter in case of No-Grid

TECHNICAL SPECIFICATION

Parameters	Units	Rating							
Model	ASPIRO	1KVA	1KVA	2KVA	3KVA / 5KVA	5KVA / 7.5KVA	7.5KVA / 10KVA	10KVA	15KVA
Operating DC Voltage	Volts	12	24	24	48	96	120	180	240

SPV PARAMETERS

SPV Open Circuit Voltage Range (Min-Max)	Volts	18-45	36-90	36-90	72-180	144-360	180-450	270-450	360-600
Max SPV Power	KW	1	1	2	3/5	5/7.5	7.5/10	10	15
Compatible SPV Panels	36 / 60 / 72 Cell								

MPPT BASED CHARGE CONTROLLER

Switching Element	IGBT Module								
Controller	DSP								
Efficiency	> 95%								
Battery Charging Stages	5 (Softstart, Boost, Absorb, Float, Equalise)								

BATTERY

Low Cut Off	Volts	10.5 / Battery +/-2%							
Low Cut Off Recovery	Volts	11.5 / Battery +/-2%							
Low Buzzer	Volts	10.7 / Battery +/-2%							
High Cut Off	Volts	15.5 / Battery +/-2%							
High Cut Off Recovery	Volts	15.0 / Battery +/-2%							
Boost Charging Volt by SPV(TUB)	Volts	14.5 / Battery +/-2%							
Boost Charging Volt by Grid(TUB)	Volts	14.0 / Battery +/-2%							
Charging Current by Grid	Amps	10A +/-2%							
No Load Battery Current	%	0.02							

OUTPUT

Output@ No load	Volts	230 +/-2%							
Output Frequency	Hz	50 +/-2%							
Overload	Amps	3.5	3.5	7	10.5 / 17.4	17.4 / 26.0	26.0 / 34.8	34.8	52.2
	Watts	800w	800w	1.6KW	2.4KW / 4KW	4KW / 6KW	6W / 8KW	8KW	12KW
Output Low Retry	-	1 Time							
Output Short Circuit	-	1 Time							

GRID

No of Phase	-	1Phase-3Wire P,N,E							
Voltage Range(Inverter Mode)	V	100-280 +/-2%							
Voltage Range(UPS Mode)	V	175-255 +/-2%							
Frequency Range	Hz	45 - 55 +/-2%							

DISPLAY

Display	Alpha-numeric	16X2 LCD	20X4 LCD
Parameters	Output (Inverter)	Voltage, Current, Power and Frequency	
	Input (Grid)	Voltage and Frequency	
	Solar	Voltage, Current, Power and Energy (Optional)	
	Battery	Voltage, Current	
	Status / Faults	Inverter Status, Main Status, Charger Status, Solar Status and Battery Status/Charging Stages	

INVERTER

Switching Element	-	MOSFET				IGBT Module			
Output voltage	Volts	230 +/-2%							
Phase	-	1Phase-3Wire P,N,E							
Output Waveform	-	Digitally Filtered Pure Sine Wave							
Frequency	Hz	50 +/- 2%							
Changeover (Mains to Inverter)	ms	<10ms							
Output Power Factor	Pf	0.8							
Overload Retry	-	3 Times							
Switches	-	System ON/OFF, Mode Selection:Hybrid / PCU / Smart, INV /UPS Selection							
Indication (LED)	-	Inverter On, Mains In Range, Battery Low/High, Charger On, Overload, Faults							
Alarm (audible)	-	Battery Low, Overload, Charger On, Inverter On, Solar Charger 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 Voltage Protection							
Cooling	-	Forced Air cooling(Temp Controlled)							
Communication	-	Remote Monitoring System (Over GPRS / BLE and Wifi) or Rs232							
Operating Temp	C	0-50							
Operating Humidity	%	95							
Protection class	-	Ip20							
Dimension(LXWXH)	mm	355x330x205		510x460x305		750x500x350		750x500x350	
Weight	kg	18	21	31.5	40	52	63	71	85

SALIENT FEATURES

Upto 30% more Efficient because of rMPPT Charge Controller
 DSP / Controller based design Pure Sine Wave
 Maximum performance to Solar Power
 Extensive Electronic Protection
 Digital Display
 User Friendly :- NLSD, Grid Charging, IT Load, GENSET
 (Enable Display by LCD) & Operating Mode (Selectable)

PCU MODE PRIORITY

Solar/Battery/Grid

HYBRID MODE PRIORITY

For Load - Grid/Solar/Battery

For Charging - Solar/Grid

SMART MODE PRIORITY

For Day Time - Solar/Battery/Grid

For Night Time - Grid/Battery

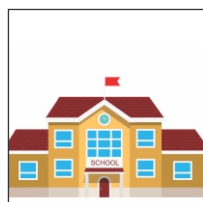
APPLICATION



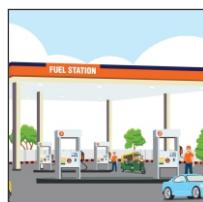
Hospital



Industries



School



Petrol Pump



House



Bank

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