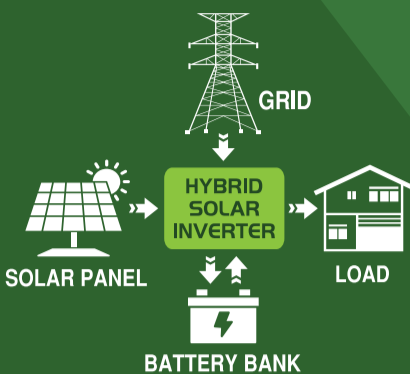




HYBRID SOLAR INVERTER



Available in: **HS 1500, HS 3000, HS 4000, HS 5000, HS 7500**

INBUILT MPPT CHARGER

HIGHLIGHTS

- ▶ DSP based intelligent technology
- ▶ LCD based display for showing of parameters and status
- ▶ Protection against reverse polarity
- ▶ Dynamic short circuit protection with fold-back current limiting
- ▶ Protection against all possible errors like battery low, overload, heavy load, short circuit etc.
- ▶ Early warning for battery low and overload conditions. System continues normally if the errors is corrected.
- ▶ Pure sinewave. Safe to all kind of loads.
- ▶ Ideal for mixed load application
- ▶ Indigenous design with proven technology.
- ▶ Generator compatibility
- ▶ Priority Solar charging.
- ▶ UPS mode option selection

PCU Mode

Solar/Battery/Grid Charging - Solar only
Priority - Solar

Hybrid Mode

Solar/Battery/Grid Charging - Solar/Grid
Priority - Solar

Application

- | | | |
|----------|-------------|------------|
| Hospital | School | Industries |
| Home | Petrol Pump | Bank |

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TECHNICAL SPECIFICATION

Parameters	Units	Rating					
System Rating	KVA	HS 1500	HS 3000	HS 4000	HS 4000	HS 5000	HS 7500
Operating DC Voltage	V	12	24	36	48	48	72
Photovoltage Input							
Input Voltage Range (Min-Max)	VDC	20-55	40-110	80-110	80-110	80-100	120-165
Maximum PV Power Recommended	W	750	1500	2000	2500	3000	4000
Number of MPPT Charge Controller		1					
Solar MPPT Rating	A	40	40	40	40	50	50
MPPT Based Charge Controller							
Switching Element		MOSFET					
Controller		DSP					
Type of Charger		MPPT					
Efficiency	%	96					
Parameter							
		Default Value					
Battery Low Buzzer	V	10.5	21	31.5	42	42	63
Battery Low Cut	V	10	20	30	40	40	60
Battery High Cut	V	14.4	28.8	43.2	57.6	57.6	86.4
Battery Charging Voltage by SPV	V	14.4	28.8	43.2	57.6	57.6	86.4
Battery Charging Current Limit by SPV	A	40			50		
Battery Charging Voltage by GRID	V	14.4	28.8	43.2	57.6	57.6	86.4
Battery Charging Current by GRID	A	6-12	6-12	6-12	6-12	6-12	6-12
Grid Low Cut Voltage (UPS mode Disable/Enable)	V	100/160					
Grid High Cut Voltage (UPS mode Disable/Enable)	V	270/260					
Output Voltage	V	220					
Over Heat Cut Off	°C	100					
Grid Disconnect (Solar Available)	V	14	28	42	56	56	84
Grid Reconnect (PCU Mode/Hybrid Mode)	V	11.5	23	34.5	46	46	57.5
No Load Current (Min-Max)	A	1-2					
Grid Charger		Enable / Disable, Default-Enable					
UPS Mode		Enable / Disable, Default-Disalbe					
Operating Mode		PCU Mode/Hybrid Mode, Default-Hybrid Mode					
Input Source		GRID/GENSET, Default-GRID					
Inverter							
Switching Element		MOSFET					
Control		PWM					
Nominal Output Voltage	VAC	220					
Output Supply Phase		1 Phase					
Output Waveform		Pure Sine Wave					
Nominal Frequency	Hz	50					
*Load Current	A	4	6	8	8	10	12
Voltage Regulation (50% Load)	%	1					
Output Voltage Distortion with 100% Linear Load	%	10					
Overload Cut Off Delay	SEC	20 Sec					
Shortcircuit Delay	SEC	20 Ms					
Peak Efficiency	%	85-90					
Noise @ 1meter	dB	50					
Cooling		Temp Controlled, Fan					
Protections		Overload, Battery low, Battery high, Output low, Output high, Output Short Circuit, Overheat, Under Frequency, Over Frequency, Solar panel reverse					
Display Parameters		Battery Voltage, Charging Current, Solar Voltage, Solar Current, Instantaneous Power, Grid Voltage, Output Voltage, Output Load, Total Unit, System Temperature					
Switches		(Solar) PCU mode/ Hybrid mode, System ON/OFF, INV/UPS mode					
Indications (LED)		*Mains On, Grid Charging, System ON, Batt. Low, Overload, SPV Charging, Solar Use, UPS mode					
Environment							
Operating Temperature	°C	0-50					
Max Relative Humidity @25°C (non condensing)	%	95					
Dimension (L x W x H)	Cm	34 X 39 X 17	50 X 23 X 39	50 X 23 X 39	50 X 23 X 39	60 X 27 X 52	60 X 27 X 52
Weight (Approximate)	Kg.	15	22	29	29	39	46

*Specification are subject to change without prior notice due to constant improvement in design & technology.