

# ON GRID HYBRID INVERTER

IS3KW/IS10KW

48V SYSTEM

For Home, Offices, Institutions, Warehouses & Factories

This is a hybrid inverter which combines solar system, AC utility, and battery power source to supply continuous power AND designed to export excess power to grid.

Unlike off grid solar power generators, the system will not drain battery in day time while working from solar when load is much higher than the solar input. The load requirement will be always getting from the solar and drawing excess requirement from the grid without affecting batteries. So that, the batteries are fully charged and is available to support power outages from the grid in night time.



Case 1: When solar power is present, the system will charge the battery & support the load. The excess power can be injected to the grid. Again this power can be captured to run appliances like air conditioners in the day time.

Case 2: when solar is absent, the system will feed from the grid and charge the battery.

Case 3: when solar and grid is absent, the battery can supply the power to the load.



**USE thin film CIS Monocrystalline Solar panels for better results in windy, cloudy and dusty environments.**

## Main Features

- Monitoring software for real time status display and control
- Built-in timer for various mode of on/off operation
- Programmable supply priority for PV, Battery or Grid
- User-adjustable battery charging current suits different types of batteries
- Programmable multiple operations modes: Grid tie, Off grid, and grid-tie with backup

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Specification	IS3KW	IS10KW
PHASE	1-phase in / 1-phase out	3-phase in / 3-phase out
RATED OUTPUT POWER	3000 W	10000 W
MAXIMUM CHARGING POWER	1200 W	9600 W
<b>PV INPUT (DC)</b>		
Maximum PV Input Power	4500W	14850W
Nominal DC Voltage / Maximum DC Voltage	360 VDC / 500 VDC	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	116 VDC / 150 VDC	320 VDC / 350 VDC
MPPT Voltage Range	250 VDC ~ 450 VDC	350 VDC ~ 850 VDC / 400 VDC ~ 800 VDC
Number of MPP Trackers / Maximum Input Current	1 / 1 x 18 A	2 / 2 x 18.6A
<b>GRID OUTPUT (AC)</b>		
Nominal Output Voltage	208/220/230/240VAC	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 264.5 VAC	184 - 265 VAC per phase
Nominal Output Current	13 A	14.5 A per phase
Power Factor	> 0.99	
<b>EFFICIENCY</b>		
Maximum Conversion Efficiency (DC/AC)	96%	> 96%
<b>AC INPUT</b>		
AC Start-up Voltage/Auto Restart Voltage	120 - 140 VAC / 180 VAC	120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC	170 - 280 VAC per phase
Maximum AC Input Current	30A	40A
<b>BATTERY MODE OUTPUT (AC)</b>		
Nominal Output Voltage	202/208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)
Output Waveform	Pure sine wave	
Efficiency (DC to AC)	93%	91%

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<b>BATTERY &amp; CHARGER</b>		
Nominal DC Voltage	48 VDC	48 VDC
Maximum Charging Current	Default 25A, 5A - 25A (Adjustable)	Default 60A, 10A - 200A (Adjustable)
<b>PHYSICAL</b>		
Dimension, D X W X H (mm)	107 x 438 x 480	622 x 500 x 167.5
Net Weight (kgs)	15.5	45
<b>INTERFACE</b>		
Communication Port	RS-232/USB	RS-232/USB and CAN Interface
Intelligent Slot	Optional SNMP, Modbus, and AS-400 cards available	Optional SNMP, Modbus, and AS-400 cards available
<b>ENVIRONMENT</b>		
Humidity	0 ~ 90% RH (No condensing)	0 ~ 90% RH (No condensing)
Operating Temperature	0 to 40°C	-10 to 55°C
Altitude	0 ~ 1000 m**	0 ~ 1000 m*