

3-WAY HYBRID INVERTER



PV Solar Inverter with programmable multiple operation modes.

- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable battery charging current suits different types of batteries
- Built-in timer for various modes of on/off operation
- Monitoring software for real-time status display and control. (Not web based.)
- Parallel operation up to 6 units for 5KW and 10KW.
- Grid Feed-Back Control and Zero Grid Feed-in.

1

GRID-TIE OPERATION without batteries

No need for a battery bank. PV Solar powers your load directly during the day while mains power supplies the loads at night or during periods of insufficient sunshine. Excess solar power can be fed into the grid.

2

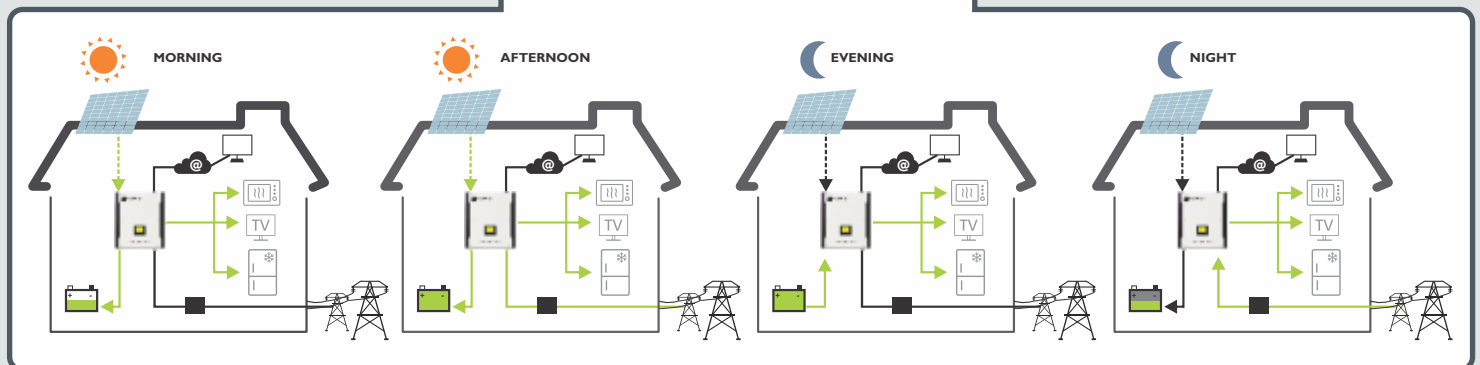
HYBRID OPERATION with batteries

The Omnipower Hybrid Inverter saves you money by using battery energy first when PV energy is low. Only when the battery levels run low will the inverter extract AC power from the grid. The Omnipower Hybrid Inverter is also able to function as an off-grid inverter to provide continuous power even when no grid exists - the ideal power solution for remote regions.

3

BACKUP POWER with batteries

The unit can also function without PV panels as a pure back-up system. In the event of a power failure, the Omnipower Hybrid Inverter will provide instant backup power to the load from the battery bank. PV solar can be added at a later stage.



Hybrid Inverter for PV Solar Systems with battery storage

Model	OHY1P4803	OHY1P4805	OHY3P4810
PHASE	1-phase in/1-phase out		3-phase in/3-phase out
Rated Output Power	3000W	5000W	10000W
Max. PV INPUT POWER	4500W	10000W	14850W
Maximum Charging Power	1200 W	4800 W	9600 W
PV INPUT (DC)			
Nominal DC Voltage/Max. DC Voltage	360 VDC/500 VDC	720 VDC/900 VDC	720 VDC/900 VDC
Start-up Voltage/Initial Feeding Voltage	116 VDC/150 VDC	225 VDC/250 VDC	320 VDC/350 VDC
MPP Voltage Range	250 VDC~450 VDC	250 VDC~850 VDC	400 VDC~800 VDC
Number of MPP Trackers	1	2	2
Maximum Input Current	1x18A	2x10A	2x18.6A
GRID-TIE			
GRID OUTPUT (AC)			
Nominal Output Voltage	208/220/230/240 VAC		230 VAC (P-N)/400 VAC (P-P)
Output Voltage Range	184 -265 VAC*		184 - 265 VAC* per phase
Nominal Output Current	13A	21A	14.5A per phase
Power Factor	>0.99		
EFFICIENCY			
Maximum Conversion Efficiency (DC/AC)	96%		
European Efficiency@Vnominal	95%		
OFF-GRID			
AC INPUT			
AC start-up Voltage	120-140 VAC		120-140 VAC per phase
Auto Restart Voltage	180 VAC		180 VAC per phase
Acceptable Input Voltage Range	170-280 VAC		170-280 VAC per phase
Max. AC Input Current	30A	40A	40A
BATTERY Mode Output (AC)			
Nominal Output Voltage	202/208/220/230/240 VAC		230 VAC (P-N)/400 VAC (P-P)
Output Waveform	Pure Sinewave		
Efficiency (DC to AC)	93%	93%	91%
HYBRID OPERATION			
GRID OUTPUT (AC)			
Nominal Output Voltage	202/208/220/230/240 VAC		230 VAC (P-N)/400 VAC (P-P)
Output Voltage Range	184-264.5 VAC*		184-264.5 VAC* per phase
Nominal Output Current	13A	21A	14.5A per phase
AC INPUT			
AC Start-up Voltage	120-140 VAC		120-140 VAC per phase
Auto Restart Voltage	180 VAC		180 VAC per phase
Acceptable Input Voltage Range	170-280 VAC		170-280 VAC per phase
Max. AC Input Current	30A	40A	40A
BATTERY MODE OUTPUT (AC)			
Nominal Output Voltage	202/208/220/230/240 VAC		230 VAC (P-N)/400 VAC(P-P)
Efficiency (DC to AC)	93%	93%	91%
BATTERY& CHARGER			
Nominal DC Voltage	48 VDC		
Max. Charging Current	Default 25A, 5A-25A (Adjustable)	Default 60A, 5A-100A (Adjustable)	Default 60A, 10A-200A (Adjustable)
GENERAL INFO			
PHYSICAL			
Dimension, D x W x H (mm)	107 x 438 x 480	204.2 x 460x 600	167.5 x 500 x 622
Net weight (kgs)	15.5	29	45
INTERFACE			
Communication Port	RS-232/USB	RS-232/USB and CAN Interface	
Intelligent Slot	Optional SNMP, Modbus and AS-400 cards available		
ENVIRONMENT			
Humidity	0~90% RH (Non-condensing)		
Operating Temperature	0 to 40 °C	-10 to 55 °C	
Altitude	0-1000 m**		
WARRANTY	2 Years Limited Warranty		

*These figures may vary depending on different AC voltage and country requirements.

**Power derating 1% every 100m when altitude is over 1000m.

Product specifications are subject to change without prior notice.