AMB Tronic®

the power to lead

Server | Telecom | Industrial | Network | Hospitality | Medical

AMB INVS-ON Series

On-Grid Inverter with Energy Storage

ambtronic.com

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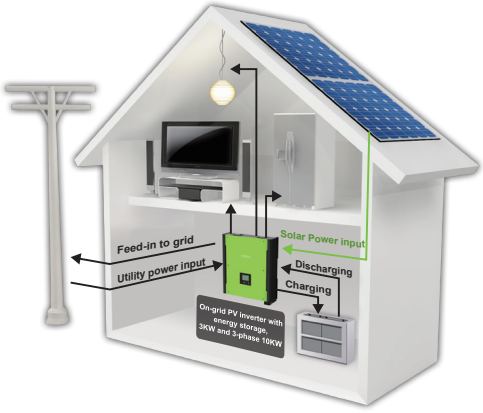
AMB INVS-ON Series

Innovative and Cost-effective Power Solution

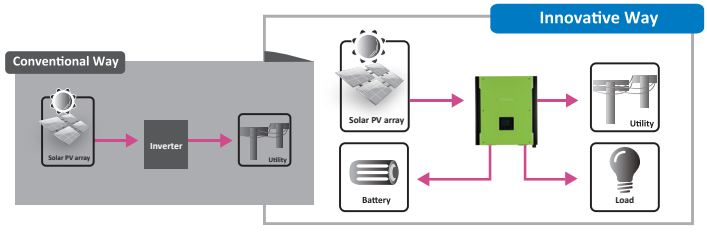
- Self-consumption and feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable battery charging current suits different types of batteries
- Programmable multiple operations modes: Grid tie, Off grid, and grid-tie with backup
- Built-in Timer for various mode of on/off operation
- Multiple communication for USB, RS-232, Modbus and SNMP
- Monitoring software for real time status display and control
- Custom-made firmware by ODM contract
- Parallel operation up to 6 units for 5KW / 10KW and 15KW

INVS-ON is a flexible and intelligent hybrid inverter which utilizes solar power, AC utility, and battery power source to supply continuous power. It's a simple and smart solar power storage system for home users to either store energy into a battery for night-time usage or use for self-consumption first depending on demands. Priority for power source is programmable through smart software. During night time or power failure, it will automatically consume reserved power from the battery. In this way, it will reduce dependence on the utility.



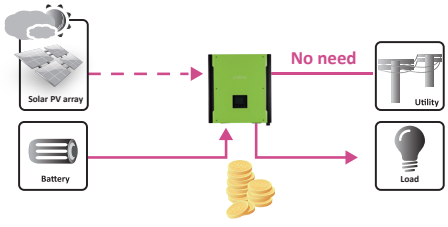
Feed-in is not the only choice

In comparison with conventional grid-tie inverter, IINVS-ON can not only feed-in power to the grid but also store solar power to the battery for future usage and directly power to the loads.



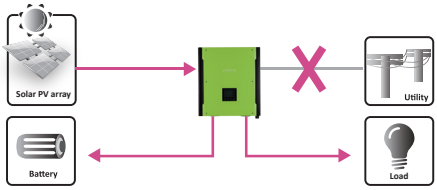
Save money by discharging battery for self-consumption first

INVS-ON can save money by using battery energy first when PV energy is low. Until battery energy is low, INVS-ON will consume AC power from the grid.



Power backup when AC failed

INVS-ON can operate as an off-grid inverter to provide continuous power even without the grid. It's a perfect power solution for remote regions or temporary AC power source for camping or night market.



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SPECIFICATION

MODEL	INVS-ON 2kW	INVS-ON Plus II 3kW	INVS-ON Plus 5kW	INVS-ON 10kW	INVS-ON 15kW
PHASE	1-phase in / 1-phase out			3-phase in / 3-phase out	
MAXIMUM PV INPUT POWER	2250 W	4500 W	10000 W	14850 W	22500 W
RATED OUTPUT POWER	2000 W	3000 W	5000 W	10000 W	15000 W
MAXIMUM CHARGING POWER	1200 W	2880W	4800 W	9600 W	15000 W
GRID-TIE OPERATION					
PV INPUT (DC)					
Nominal DC Voltage / Maximum DC Voltage	300 VDC / 350 VDC	360 VDC / 500 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	80 VDC / 120 VDC	116 VDC / 150 VDC	225 VDC / 250 VDC	320 VDC / 350 VDC	320 VDC / 350 VDC
MPP Voltage Range	120 VDC ~ 320 VDC	250 VDC ~ 450 VDC	250 VDC ~ 850 VDC	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC
Number of MPP Trackers / Maximum Input Current	1 / 1 x 15 A	1 / 1 x 18 A	2 / 2 x 10 A	2 / 2 x 18.6A	2 / A: 37.65A; B: 18.6A
GRID OUTPUT (AC)					
Nominal Output Voltage	101/110/120/127 VAC	208/220/230/240 VAC		230 VAC (P-N) / 400 VAC (P-P)	
Output Voltage Range	88 - 127 VAC*	184 - 265 VAC*		184 - 265VAC* per phase	184 - 264.5VAC per phase
Nominal Output Current	18 A	13 A	21 A	14.5A per phase	21.7A per phase
Power Factor	> 0.99				
EFFICIENCY					
Maximum Conversion Efficiency (DC/AC)	95%	96%			
European Efficiency@ Vnominal	94%	95%			
OFF-GRID OPERATION					
AC INPUT					
AC Start-up Voltage/Auto Restart Voltage	60 - 70 VAC / 85 VAC	120 - 140 VAC / 180 VAC		120 - 140 VAC per phase / 180 VAC per phase	
Acceptable Input Voltage Range	80 - 130 VAC	170 - 280 VAC		170 - 290 VAC per phase	170 - 280 VAC per phase
Maximum AC Input Current	30 A		40 A		
PV INPUT (DC)					
Maximum DC Voltage	350 VDC	500 VDC	900 VDC	900 VDC	900 VDC
MPP Voltage Range	150 VDC ~ 320 VDC	250 VDC ~ 450 VDC	250 VDC ~ 850 VDC	350 VDC ~ 850 VDC	350 VDC ~ 850 VDC
Number of MPP Trackers/Maximum Input Current	1 / 1 x 15 A	1 / 1 x 18 A	2 / 2 x 10A	2 / 2 x 18.6A	2 / A: 37.65A; B: 18.6A
BATTERY MODE OUTPUT (AC)					
Nominal Output Voltage	101/110/120/127 VAC	208/220/230/240 VAC	202/208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)	230 VAC (P-N) / 400 VAC (P-P)
Output Waveform	Pure Sinewave				
Efficiency (DC to AC)	90%	93%		91%	91%
HYBRID OPERATION					
PV INPUT (DC)					
Nominal DC Voltage / Maximum DC Voltage	300 VDC / 350 VDC	360 VDC / 500 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	80 VDC / 120 VDC	116 VDC / 150 VDC	225 VDC / 250 VDC	320 VDC / 350 VDC	320 VDC / 350 VDC
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Nominal Output Voltage	101/110/120/127 VAC	208/220/230/240 VAC	202/208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)	230 VAC (P-N) / 400 VAC (P-P)
Efficiency (DC to AC)	90%	93%		91%	91%
BATTERY & CHARGER					
Nominal DC Voltage	48 VDC				
Maximum Charging Current	Default 25A, 5A - 25A (Adjustable)	Default 25 A, 5A - 60A (Adjustable)	Default 60A, 5A - 100A (Adjustable)	Default 60A, 10A - 200A (Adjustable)	Default 60A, 5A - 300A (Adjustable)
GENERAL					
PHYSICAL					
Dimension, D x W x H (mm)	107 x 438 x 480		204.2 x 460 x 600	167.2 x 500 x 622	219 x 650 x 820
Net Weight (kgs)	15.5		29	40	62
INTERFACE					
Communication Port	RS-232/USB		RS-232/USB		RS-232, USB and Dry contact
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	Max. 2000 m**				

*These figures may vary depending on different AC voltage and country requirements.
** Power derating 1% every 100 m when altitude is over 1000m
Product specifications are subject to change without further notice.