

IGrid: On-Grid Inverter with Energy Storage

Innovative and Cost-effective Power Solution



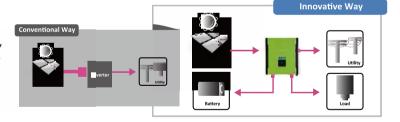
- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable battery charging current suits different types of batteries
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Built-in timer 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
- Parallel operation up to 6 units for 5KW and 10KW

IGrid 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 and wait for night-time usage or use for self-consumption first depending on demands. Priority for power source can be programmed and set up through smart software. During night time or power failure, it will automatically extract power from the battery In this way, it will reduce dependence on the utility.



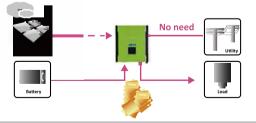
Feed-in is not only choice

In comparison with conventional grid-tie inverter, InfiniSolar is able to 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.



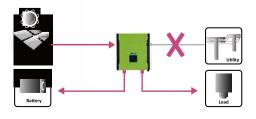
Save money by discharging battery for self-consumption first

IGrid can save money by using battery energy first when PV energy is low. Until battery energy is low, IGrid will extract AC power from the grid.



Power backup when AC failed

IGrid 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 such as camping or night market.





IGrid On-grid Inverter with Energy Storage Selection Guide

MODEL	IGrid SS 2KW	IGrid SS 3KW Plus	IGrid SS 5KW Plus	IGrid TT 10KW
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
RATED OUTPUT POWER	2000 W	3000 W	5000 W	10000 W
MAXIMUM CHARGING POWER	120	0 W	4800 W	9600 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
Start-up Voltage / Initial Feeding Voltage	80 VDC / 120 VDC	116 VDC / 150 VDC	225 VDC / 250 VDC	320 VDC / 350 VDC
MPP Voltage Range	120 VDC ~ 320 VDC	250 VDC ~ 450 VDC	250 VDC ~ 850 VDC	400 VDC ~ 800 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
GRID OUTPUT (AC)				ı
Nominal Output Voltage	101/110/120/127 VAC	208/220/23		230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	88 - 127 VAC*	184 - 26		184 - 265 VAC* per phase
Nominal Output Current	18 A	13 A	21 A	14.5A per phase
Power Factor		> 0	.99	
EFFICIENCY (DOMA)	050/		000/	
Maximum Conversion Efficiency (DC/AC)	95%		96%	
European Efficiency@ Vnominal	94%		95%	
OFF-GRID OPERATION AC INPUT				
				120 - 140 VAC per phase /
AC Start-up Voltage/Auto Restart Voltage	60 - 70 VAC / 85 VAC	120 - 140 VAC / 180 VAC		180 VAC per phase
Acceptable Input Voltage Range	80 - 130 VAC	170 - 2	80 VAC	170 - 280 VAC per phase
Maximum AC Input Current	30) A	4	0 A
PV INPUT (DC)				
Maximum DC Voltage	350 VDC	500 VDC	900 VDC	900 VDC
MPP Voltage Range	150 VDC ~ 320 VDC	250 VDC ~ 450 VDC	250 VDC ~ 850 VDC	400 VDC ~ 800 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
BATTERY MODE OUTPUT (AC)				
Nominal Output Voltage	101/110/120/127 VAC	202/208/220/230/240 VAC	202/208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)
Output Waveform		Pure Si		I
Efficiency (DC to AC)	90%	93	3%	91%
HYBRID OPERATION				
PV INPUT (DC)	200 VDC / 250 VDC	260 VDC / 500 VDC	720 VDC / 000 VDC	720 V/DC / 000 V/DC
Nominal DC Voltage / Maximum DC Voltage	300 VDC / 350 VDC 80 VDC / 120 VDC	360 VDC / 500 VDC 116 VDC / 150 VDC	720 VDC / 900 VDC 225 VDC / 250 VDC	720 VDC / 900 VDC 320 VDC / 350 VDC
Start-up Voltage / Initial Feeding Voltage MPP Voltage Range	150 VDC ~ 320 VDC	250 VDC ~ 450 VDC	250 VDC ~ 850 VDC	400 VDC ~ 800 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
GRID OUTPUT (AC)	17171074	17121074	272 X 10/4	272 X 10.0A
Nominal Output Voltage	101/110/120/127 VAC	202/208/220/230/240 VAC	202/208/220/230/240 VAC	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	88-127 VAC*	184 - 264		184 - 264.5 VAC* per phase
Nominal Output Current	18 A	13 A		
AC INPUT				· · · · · ·
AC INPU		1071	21 A	14.5 A per phase
	60 - 70 VAC / 85 VAC			14.5 A per phase
AC Start-up Voltage / Auto Restart Voltage	60 - 70 VAC / 85 VAC	120 - 140 VA	C / 180 VAC	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range	80 - 130 VAC	120 - 140 VA 170 - 2:	IC / 180 VAC 80 VAC	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current	80 - 130 VAC	120 - 140 VA	IC / 180 VAC 80 VAC	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC)	80 - 130 VAC	120 - 140 VA 170 - 2:) A	NC / 180 VAC 80 VAC 4	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage	80 - 130 VAC 30 101/110/120/127 VAC	120 - 140 VA 170 - 2:) A 202/208/220/230/240 VAC	AC / 180 VAC 80 VAC 4: 202/208/220/230/240 VAC	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P)
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC)	80 - 130 VAC	120 - 140 VA 170 - 2:) A	AC / 180 VAC 80 VAC 4: 202/208/220/230/240 VAC	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC) BATTERY & CHARGER	80 - 130 VAC 30 101/110/120/127 VAC	120 - 140 VA 170 - 2: 0 A 202/208/220/230/240 VAC 93	AC / 180 VAC 80 VAC 4: 202/208/220/230/240 VAC 3%	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P)
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC) BATTERY & CHARGER Nominal DC Voltage	80 - 130 VAC 30 101/110/120/127 VAC 90%	120 - 140 VA 170 - 2:) A 202/208/220/230/240 VAC 93	AC / 180 VAC 80 VAC 40 202/208/220/230/240 VAC %	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P) 91%
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC) BATTERY & CHARGER Nominal DC Voltage Maximum Charging Current	80 - 130 VAC 30 101/110/120/127 VAC	120 - 140 VA 170 - 2:) A 202/208/220/230/240 VAC 93	AC / 180 VAC 80 VAC 4: 202/208/220/230/240 VAC 3%	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P)
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC) BATTERY & CHARGER Nominal DC Voltage Maximum Charging Current GENERAL	80 - 130 VAC 30 101/110/120/127 VAC 90%	120 - 140 VA 170 - 2:) A 202/208/220/230/240 VAC 93	AC / 180 VAC 80 VAC 4: 202/208/220/230/240 VAC 9% /DC Default 60A, 5A - 100A	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P) 91% Default 60A, 10A - 200A
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC) BATTERY & CHARGER Nominal DC Voltage Maximum Charging Current GENERAL PHYSICAL	80 - 130 VAC 30 101/110/120/127 VAC 90% Default 25A, 5A -	120 - 140 VA 170 - 20 0 A 202/208/220/230/240 VAC 93 48 \ 25A (Adjustable)	AC / 180 VAC 80 VAC 402/208/220/230/240 VAC 407/208/220/230/240 VAC 407/208/220/230/240 VAC 407/208/220/230/240 VAC 407/208/220/230/240 VAC 407/208/220/230/240 VAC	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P) 91% Default 60A, 10A - 200A (Adjustable)
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC) BATTERY & CHARGER Nominal DC Voltage Maximum Charging Current GENERAL PHYSICAL Dimension, D X W X H (mm)	80 - 130 VAC 30 101/110/120/127 VAC 90% Default 25A, 5A -	120 - 140 VA 170 - 20 0 A 202/208/220/230/240 VAC 93 48 \ 25A (Adjustable)	AC / 180 VAC 80 VAC 4: 202/208/220/230/240 VAC 9% /DC Default 60A, 5A - 100A (Adjustable)	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P) 91% Default 60A, 10A - 200A (Adjustable)
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC) BATTERY & CHARGER Nominal DC Voltage Maximum Charging Current GENERAL PHYSICAL Dimension, D X W X H (mm) Net Weight (kgs)	80 - 130 VAC 30 101/110/120/127 VAC 90% Default 25A, 5A -	120 - 140 VA 170 - 20 0 A 202/208/220/230/240 VAC 93 48 \ 25A (Adjustable)	AC / 180 VAC 80 VAC 402/208/220/230/240 VAC 407/208/220/230/240 VAC 407/208/220/230/240 VAC 407/208/220/230/240 VAC 407/208/220/230/240 VAC 407/208/220/230/240 VAC	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P) 91% Default 60A, 10A - 200A (Adjustable)
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC) BATTERY & CHARGER Nominal DC Voltage Maximum Charging Current GENERAL PHYSICAL Dimension, D X W X H (mm) Net Weight (kgs) INTERFACE	80 - 130 VAC 30 101/110/120/127 VAC 90% Default 25A, 5A -	120 - 140 VA 170 - 20 0 A 202/208/220/230/240 VAC 93 48 V 25A (Adjustable) 38 x 480 5.5	AC / 180 VAC 80 VAC 4: 202/208/220/230/240 VAC 9% /DC Default 60A, 5A - 100A (Adjustable) 204.2 x 460 x 600 29	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P) 91% Default 60A, 10A - 200A (Adjustable) 167.5 x 500 x 622 45
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC) BATTERY & CHARGER Nominal DC Voltage Maximum Charging Current GENERAL PHYSICAL Dimension, D X W X H (mm) Net Weight (kgs) INTERFACE Communication Port	80 - 130 VAC 30 101/110/120/127 VAC 90% Default 25A, 5A -	120 - 140 VA 170 - 2: 0 A 202/208/220/230/240 VAC 93 48 V 25A (Adjustable) 38 x 480 5.5	AC / 180 VAC 80 VAC 40 202/208/220/230/240 VAC 9% /DC Default 60A, 5A - 100A (Adjustable) 204.2 x 460 x 600 29 RS-232/USB an	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P) 91% Default 60A, 10A - 200A (Adjustable)
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC) BATTERY & CHARGER Nominal DC Voltage Maximum Charging Current GENERAL PHYSICAL Dimension, D X W X H (mm) Net Weight (kgs) INTERFACE Communication Port Intelligent Slot	80 - 130 VAC 30 101/110/120/127 VAC 90% Default 25A, 5A -	120 - 140 VA 170 - 2: 0 A 202/208/220/230/240 VAC 93 48 V 25A (Adjustable) 38 x 480 5.5	AC / 180 VAC 80 VAC 4: 202/208/220/230/240 VAC 9% /DC Default 60A, 5A - 100A (Adjustable) 204.2 x 460 x 600 29	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P) 91% Default 60A, 10A - 200A (Adjustable) 167.5 x 500 x 622 45
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC) BATTERY & CHARGER Nominal DC Voltage Maximum Charging Current GENERAL PHYSICAL Dimension, D X W X H (mm) Net Weight (kgs) INTERFACE Communication Port Intelligent Slot ENVIRONMENT	80 - 130 VAC 30 101/110/120/127 VAC 90% Default 25A, 5A -	120 - 140 VA 170 - 2: 0 A 202/208/220/230/240 VAC 93 48 V 25A (Adjustable) 38 x 480 5.5 2/USB Optional SNMP, Modbus a	AC / 180 VAC 80 VAC 40 202/208/220/230/240 VAC 9% /DC Default 60A, 5A - 100A (Adjustable) 204.2 x 460 x 600 29 RS-232/USB ar and AS-400 cards available	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P) 91% Default 60A, 10A - 200A (Adjustable) 167.5 x 500 x 622 45
AC Start-up Voltage / Auto Restart Voltage Acceptable Input Voltage Range Maximum AC Input Current BATTERY MODE OUTPUT (AC) Nominal Output Voltage Efficiency (DC to AC) BATTERY & CHARGER Nominal DC Voltage Maximum Charging Current GENERAL PHYSICAL Dimension, D X W X H (mm) Net Weight (kgs) INTERFACE Communication Port Intelligent Slot ENVIRONMENT Humidity	80 - 130 VAC 30 101/110/120/127 VAC 90% Default 25A, 5A - 107 x 43 15	120 - 140 VA 170 - 2:) A 202/208/220/230/240 VAC 93 48 V 25A (Adjustable) 38 x 480 5.5 2/USB Optional SNMP, Modbus a	AC / 180 VAC 80 VAC 40 202/208/220/230/240 VAC 9% /DC Default 60A, 5A - 100A (Adjustable) 204.2 x 460 x 600 29 RS-232/USB ar and AS-400 cards available	14.5 A per phase 120 - 140 VAC per phase / 180 VAC per phase 170 - 280 VAC per phase 0 A 230 VAC (P-N) / 400 VAC (P-P) 91% Default 60A, 10A - 200A (Adjustable) 167.5 x 500 x 622 45 dd CAN Interface
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^{*}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.

C € VDE-AR-N 4105 VDE 0126-1-1 AS4777, AS/NZS3100, NRS-097-2-1 (only for IGrid SS 3KW Plus)