

# InfiniSolar: On-Grid Inverter with Energy Storage

## Innovative and Cost-effective Power Solution



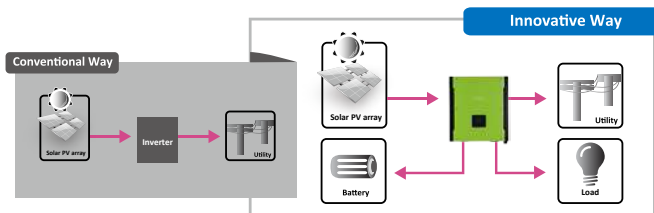
- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable battery charging current suits different types of batteries
- Programmable multiple operation modes: Grid-tie, off-grid and grid-tie with backup
- Built-in timer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

InfiniSolar 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.



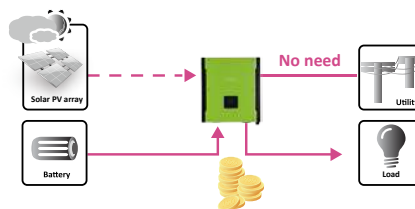
### Feed-in is not only choice

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.



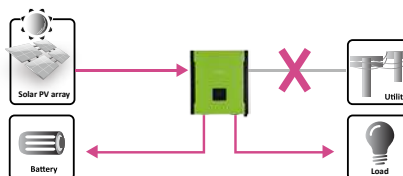
### Save money by discharging battery for self-consumption first

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



### Power backup when AC failed

InfiniSolar 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.



# InfiniSolar On-grid Inverter with Energy Storage Selection Guide

| MODEL  | InfiniSolar 2KW                                  | InfiniSolar Plus 3KW    | InfiniSolar 5KW                     | InfiniSolar Plus 5KW                | InfiniSolar 3P 10KW                         |
|--|--|-------------------------|-------------------------------------|-------------------------------------|---|
| <b>PHASE</b>                                   | 1-phase in / 1-phase out                         |                         |                                     |                                     | 3-phase in / 3-phase out                    |
| <b>MAXIMUM PV INPUT POWER</b>                  | 2250 W   | 4500 W                  | 5000 W                              | 10000 W                             | 14850 W                                     |
| <b>RATED OUTPUT POWER</b>                      | 2000 W   | 3000 W                  | 5000 W                              | 5000 W                              | 10000 W                                     |
| <b>MAXIMUM CHARGING POWER</b>                  | 1200 W   |                         | 1500 W                              | 4800 W                              | 9600 W                                      |
| <b>GRID-TIE OPERATION</b>                      |  |                         |                                     |                                     |   |
| <b>PV INPUT (DC)</b>                           |  |                         |                                     |                                     |   |
| 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       | 277 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                               |
| <b>GRID OUTPUT (AC)</b>                        |  |                         |                                     |                                     |   |
| 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 - 265 VAC* per phase                    |
| Nominal Output Current                         | 18 A   | 13 A                    | 21 A                                | 21 A                                | 14.5A per phase                             |
| Power Factor                                   | > 0.99   |                         |                                     |                                     |   |
| <b>EFFICIENCY</b>                              |  |                         |                                     |                                     |   |
| Maximum Conversion Efficiency (DC/AC)          | 95%  |                         | 96%                                 |                                     |   |
| European Efficiency@ Vnominal                  | 94%  |                         | 95%                                 |                                     |   |
| <b>OFF-GRID OPERATION</b>                      |  |                         |                                     |                                     |   |
| <b>AC INPUT</b>                                |  |                         |                                     |                                     |   |
| 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 - 280 VAC per phase                     |
| Maximum AC Input Current                       | 30 A   |                         |                                     | 40 A                                |   |
| <b>PV INPUT (DC)</b>                           |  |                         |                                     |                                     |   |
| Maximum DC Voltage                             | 350 VDC  | 500 VDC                 | 500 VDC                             | 900 VDC                             | 900 VDC                                     |
| MPP Voltage Range                              | 150 VDC ~ 320 VDC                                | 250 VDC ~ 450 VDC       | 277 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            | 1 / 1 x 18 A                        | 2 / 2 x 10A                         | 2 / 2 x 18.6A                               |
| <b>BATTERY MODE OUTPUT (AC)</b>                |  |                         |                                     |                                     |   |
| Nominal Output Voltage                         | 101/110/120/127 VAC                              | 202/208/220/230/240 VAC | 220/230/240 VAC                     | 202/208/220/230/240 VAC             | 230 VAC (P-N) / 400 VAC (P-P)               |
| Output Waveform                                | Pure Sinewave                                    |                         |                                     |                                     |   |
| Efficiency (DC to AC)                          | 90%  |                         | 93%                                 |                                     | 91%   |
| <b>HYBRID OPERATION</b>                        |  |                         |                                     |                                     |   |
| <b>PV INPUT (DC)</b>                           |  |                         |                                     |                                     |   |
| Nominal DC Voltage / Maximum DC Voltage        | 300 VDC / 350 VDC                                | 360 VDC / 500 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       | 116 VDC / 150 VDC                   | 225 VDC / 250 VDC                   | 320 VDC / 350 VDC                           |
| MPP Voltage Range                              | 150 VDC ~ 320 VDC                                | 250 VDC ~ 450 VDC       | 277 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            | 1 / 1 x 18 A                        | 2 / 2 x 10A                         | 2 / 2 x 18.6A                               |
| <b>GRID OUTPUT (AC)</b>                        |  |                         |                                     |                                     |   |
| Nominal Output Voltage                         | 101/110/120/127 VAC                              | 202/208/220/230/240 VAC | 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 - 264.5 VAC*                    |                                     | 184 - 264.5 VAC* per phase                  |
| Nominal Output Current                         | 18 A   | 13 A                    | 21 A                                | 21 A                                | 14.5 A per phase                            |
| <b>AC INPUT</b>                                |  |                         |                                     |                                     |   |
| 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 - 280 VAC per phase                     |
| Maximum AC Input Current                       | 30 A   |                         |                                     | 40 A                                |   |
| <b>BATTERY MODE OUTPUT (AC)</b>                |  |                         |                                     |                                     |   |
| Nominal Output Voltage                         | 101/110/120/127 VAC                              | 202/208/220/230/240 VAC | 220/230/240 VAC                     | 202/208/220/230/240 VAC             | 230 VAC (P-N) / 400 VAC (P-P)               |
| Efficiency (DC to AC)                          | 90%  |                         | 93%                                 |                                     | 91%   |
| <b>BATTERY &amp; CHARGER</b>                   |  |                         |                                     |                                     |   |
| Nominal DC Voltage                             | 48 VDC   |                         |                                     |                                     |   |
| Maximum Charging Current                       | Default 25A, 5A - 25A (Adjustable)               |                         | Default 30 A, 5A - 30A (Adjustable) | Default 60A, 5A - 100A (Adjustable) | Default 60A, 10A - 200A (Adjustable)        |
| <b>GENERAL</b>                                 |  |                         |                                     |                                     |   |
| <b>PHYSICAL</b>                                |  |                         |                                     |                                     |   |
| Dimension, D X W X H (mm)                      | 107 x 438 x 480                                  |                         |                                     | 204.2 x 460 x 600                   | 167.5 x 500 x 622                           |
| Net Weight (kgs)                               | 15.5   |                         | 16                                  | 29                                  | 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 |                         |                                     |                                     |   |
| <b>ENVIRONMENT</b>                             |  |                         |                                     |                                     |   |
| Humidity                                       | 0 ~ 90% RH (No condensing)                       |                         |                                     |                                     |   |
| Operating Temperature                          | 0 to 40°C  |                         |                                     | -10 to 55°C                         |   |
| Altitude                                       | 0 ~ 1000 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.



AS4777, AS/NZS3100, NRS-097-2:1 (only for InfiniSolar Plus 3KW)