Kayam Solar Corporation Private Limited

10 YEARS EXPERIENCE



Kayam On Grid Hybrid Inverter

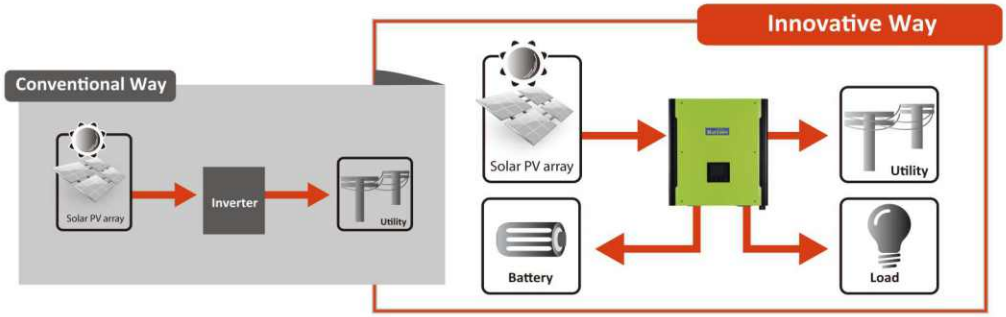
On-grid Hybrid Inverter with Energy Storage

- Pure sinewave output
- Microprocessor controlled to guarantee stable charging system
- Multiple operations: Grid tie, Off grid, and grid-tie with backup
- Built-in MPPT solar charger
- LCD display panel for comprehensive information
- Multiple communication
- Green substitution for generators
- User-adjustable battery charging current



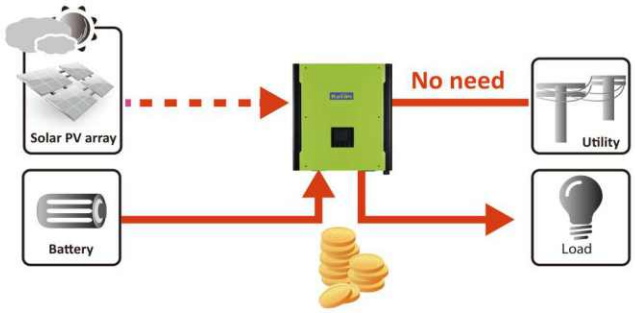
Feed-in is not the only choice

In comparison with conventional solar grid-tie inverter is able to not only feed-in power to grid but also store power to battery for future usuage and directly power to the load.



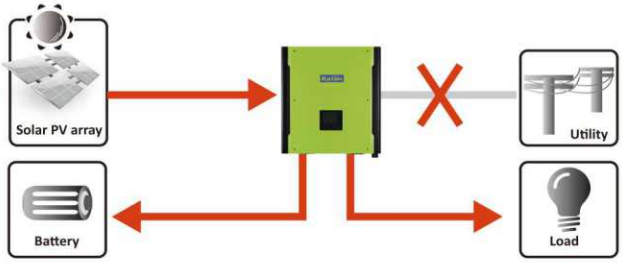
Save money by discharging battery for self-consumption first

Kayam can save money by using battery power first when PV energy is low. If battery voltage is low Kayam will extract AC power from the grid.



Power backup when AC failed

Kayam can also work as an off-grid inverter to provide continuous power even when there is no power from grid. It is a perfect solution for you if you would like to feed-in but also have power during power cuts.



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Kayam 2kW/3kW On-grid Inverter with Energy Storage



- 2KW/3KW On-Grid Inverter with Energy Storage
- Self-consumption and Feed-in to the grid
- Programmable priority options for PV, Battery or Grid
- User-adjustable battery charging current suits different types of batteries
- Programmable 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

MODEL	2kW	3kW Plus
PHASE	1-phase in / 1-phase out	
RATED OUTPUT POWER	2000 W	3000 W
MAXIMUM CHARGING POWER	1200 W	1200 W
GRID-TIE OPERATION		
PV INPUT (DC)		
Maximum PV Input Power	2250W	4500W
Nominal DC Voltage / Maximum DC Voltage	300 VDC / 350 VDC	360 VDC / 500 VDC
Start-up Voltage / Initial Feeding Voltage	80 VDC / 120 VDC	116 VDC / 150 VDC
MPP Voltage Range	150 VDC ~ 320 VDC	250 VDC ~ 450 VDC
Number of MPP Trackers / Maximum Input Current	1 / 1 x 15 A	1 / 1 x 18 A
GRID OUTPUT (AC)		
Nominal Output Voltage	101/110/120/127 VAC	208/220/230/240 VAC
Output Voltage Range	88 - 127 VAC*	184 - 264.5 VAC*
Nominal Output Current	18 A	13 A
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
Acceptable Input Voltage Range	80 - 130 VAC	170 - 280 VAC
Maximum AC Input Current	30 A	
PV INPUT (DC)		
Maximum DC Voltage	350 VDC	500 VDC
MPP Voltage Range	150 VDC ~ 320 VDC	250 VDC ~ 450 VDC
Number of MPP Trackers / Maximum Input Current	1 / 1 x 15 A	1 / 1 x 18 A
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	101/110/120/127 VAC	202/208/220/230/240 VAC
Output Waveform	Pure Sinewave	
Efficiency (DC to AC)	90%	93%
HYBRID OPERATION		
PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage	300 VDC / 350 VDC	360 VDC / 500 VDC
Start-up Voltage / Initial Feeding Voltage	80 VDC / 120 VDC	116 VDC / 150 VDC
MPP Voltage Range	150 VDC ~ 320 VDC	250 VDC ~ 450 VDC
Number of MPP Trackers / Maximum Input Current	1 / 1 x 15 A	1 / 1 x 18 A
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Acceptable Input Voltage Range	80 - 130 VAC	170 - 280 VAC
Maximum AC Input Current	30 A	
BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	101/110/120/127 VAC	202/208/220/230/240 VAC
Efficiency (DC to AC)	90%	93%
BATTERY & CHARGER		
Nominal DC Voltage	48 VDC	
Maximum Charging Current	Default 25A, 5A - 25A (Adjustable)	
GENERAL		
PHYSICAL		
Dimension, D X W X H (mm)	107 x 438 x 480	
Net Weight (kgs)	15.5	
INTERFACE		
Communication Port	RS-232/USB	
Intelligent Slot	Optional SNMP, Modbus, and AS-400 cards available	
ENVIRONMENT		
Humidity	0 ~ 90% RH (No condensing)	
Operating Temperature	0 to 40°C	0 to 40°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.

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Kayam 10kW On-grid Inverter with Energy Storage



- 10KW 3-phase on-grid inverter with energy storage
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- User-adjustable charging current up to 200A
- Programmable 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

MODEL	10kW
PHASE	3-phase in / 3-phase out
RATED OUTPUT POWER	10000 W
MAXIMUM CHARGING POWER	9600 W
GRID-TIE OPERATION	
PV INPUT (DC)	
Maximum PV Input Power	14850W
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC
MPP Voltage Range / Full Load MPP Voltage Range	350 VDC ~ 850 VDC / 400 VDC ~ 800 VDC
Number of MPP Trackers / Maximum Input Current	2 / 2 x 18.6A
GRID OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC per phase
Nominal Output Current	14.5 A per phase
Power Factor	> 0.99
EFFICIENCY	
Maximum Conversion Efficiency (DC/AC)	> 96%
European Efficiency@ Vnominal	> 95%
OFF-GRID OPERATION	
AC INPUT	
AC Start-up Voltage/Auto Restart Voltage	120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC per phase
Maximum AC Input Current	40A
PV INPUT (DC)	
Maximum DC Voltage	900 VDC
MPP Voltage Range / Full Load MPP Voltage Range	350 VDC ~ 850 VDC / 400 VDC ~ 800 VDC
Number of MPP Trackers / Maximum Input Current	2 / 2 x 18.6A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Waveform	Pure Sinewave
Efficiency (DC to AC)	91%
HYBRID OPERATION	
PV INPUT (DC)	
Nominal DC Voltage / Maximum DC Voltage	720 VDC / 900 VDC
Start-up Voltage / Initial Feeding Voltage	320 VDC / 350 VDC
MPP Voltage Range / Full Load MPP Voltage Range	350 VDC ~ 850 VDC / 400 VDC ~ 800 VDC
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GRID OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Output Voltage Range	184 - 265 VAC per phase
Nominal Output Current	14.5 A per phase
AC INPUT	
AC Start-up Voltage / Auto Restart Voltage	120 - 140 VAC per phase / 180 VAC per phase
Acceptable Input Voltage Range	170 - 280 VAC per phase
Maximum AC Input Current	40A
BATTERY MODE OUTPUT (AC)	
Nominal Output Voltage	230 VAC (P-N) / 400 VAC (P-P)
Efficiency (DC to AC)	91%
BATTERY & CHARGER	
Nominal DC Voltage	48 VDC
Maximum Charging Current	Default 60A, 10A - 200A (Adjustable)
GENERAL	
PHYSICAL	
Dimension, D X W X H (mm)	622 x 500 x 167.5
Net Weight (kgs)	45
INTERFACE	
Communication Port	RS-232/USB and CAN Interface
Intelligent Slot	Optional SNMP, Modbus, and AS-400 cards available
ENVIRONMENT	
Humidity	0 ~ 90% RH (No condensing)
Operating Temperature	-10 to 55°C
Altitude	0 ~ 1000 m*

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

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