Kayam Solar Corporation Private Limited

Kayam Solar Hybrid Inverter

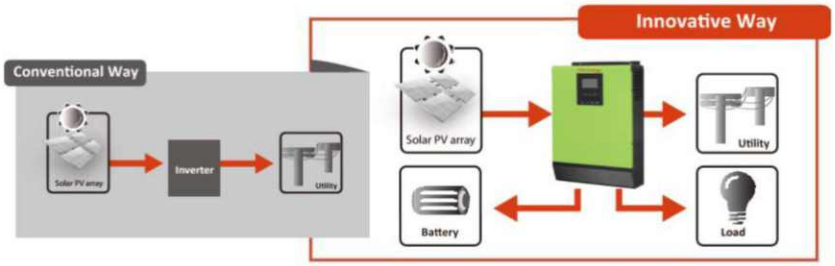
On-grid Hybrid Inverter with Energy Storage



- **Low Solar Panel Setup Cost:** With the MPPT operating range, setup the solar panel with less cost at initial stage and expand easily in future
- **Flexibility of Solar Panel selection:** With the isolated solar input design, Kayam Hybrid is available for all kinds of solar panels.
- **Very Powerful High Charging Current:** Kayam Hybrid model is built in with 60A AC charger and 80A solar charger
- **High DC-AC Conversion Efficiency:** 93% of DC-AC conversion efficiency helps to maximize power availability for connected load with minimize energy loss.

Feed-in to Grid + Load + Battery Charging

With enough solar power, Kayam Hybrid converts the solar power to power the load and charge the battery. The extra power will feed-in to the Grid.



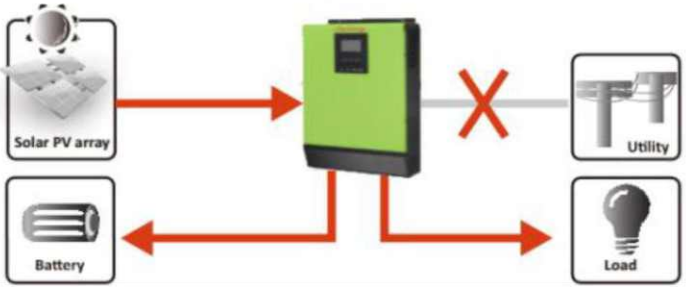
Pay Less Electricity Bill

Kayam Hybrid uses solar power to power the load directly. If solar power is not enough, it will use the battery energy to power the load. Only if both solar power is low and battery voltage is low, it will draw power from the Grid



Battery Backup when AC Fail

If the Grid is not available, Kayam Hybrid will power the load directly from the solar power and the extra solar energy would be used to charge the battery.

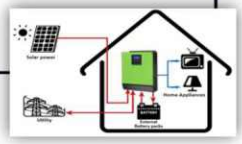


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Kayam Hybrid: On-Grid Inverter with Energy Storage



- Pure sine wave output
- Self-consumption and Feed-in to the grid
- Customizable supply priority for PV, Battery or Grid
- User-adjustable charging current and voltage
- Multiple opérations : Grid-tie, off-grid and grid-tie with backup
- Monitoring software for real-time status display and control
- Parallel operation up to 6 units is available for 3K/4K/5K



Specifications for Kayam Hybrid Series of Hybrid Inverters

MODEL	2K-24V	4K-48V	5kW-48	3P 6kW-48V
Max. PV Array Power	2000W	4000W	6000W	9000W
Rated Output Power	2000W	4000W	5000W	6000W
Maximum PV Array Open Circuit Voltage	145 VDC	145 VDC	145 VDC	450 VDC
MPPT Range @ Operating Voltage	30 VDC ~ 115 VDC	60 VDC ~ 115 VDC	60 VDC ~ 115 VDC	120 VDC ` 400 VDC
Phase	Single Phase	Single Phase	Single Phase	Three Phase
Number	1	1	2	3
GRID-TIE OPERATION				
GRID OUTPUT (AC)				
Nominal Output Voltage	220/230/240 VAC			
Output Voltage Range	195.5~253 VAC @India regulation and 184 ~ 264.5 VAC @Germany regulation			
Nominal Output Current	8.7A	17.4A	21.7A	8.7A per phase
Power Factor	> 0.99			
EFFICIENCY				
Maximum Conversion Efficiency (DC/AC)	90%			96%
OFF-GRID, HYBRID OPERATION				
GRID INPUT				
AC Start-up Voltage / Auto Restart Voltage	120-140 VAC / 180 VAC			120-140 VAC / 180 VAC per phase
Acceptable Input Voltage Range	170 -280 VAC			170 -280 VAC per phase
Maximum AC Input Current	30A	40A		20A per phase
BATTERY MODE OUTPUT (AC)				
Nominal Output Voltage	202/208/220/230/240 VAC			
Output Waveform	Pure sine wave			
Efficiency (DC to AC)	93%			
BATTERY & CHARGER				
Nominal DC Voltage	24 VDC	48 VDC		
Maximum Solar Charge Current	80 A		120 A	60A Per Phase
Maximum AC Charge Current	60 A			60A Per Phase
Maximum Charge Current	140 A		180 A	180A
GENERAL				
PHYSICAL				
Dimension, D x W x H (mm)	100 x 300 x 450	120 x 295 x 468	194 x 295 x 455	590 x 260 x 650
Net Weight (kgs	8	11	16	36
INTERFACE				
Parallel Function	N/A	Yes	Yes	N/A
External Safety Box (Optional)	Yes			No
Communication	USB/Dry contact			
ENVIRONMENT				
Humidity	0 ~ 90% RH (No condensing)			
Operating Temperature	0 to 50°C			

Product specifications are subject to change without further notice

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