

- » LCD display panel
- » Pure sinewave output
- » Charging system stable
- » Microprocessor control
- » Multiple communication
- » Built-in MPPT solar charger
- » Green substitution for generators
- » User-adjustable battery charging current up to 25A
- » Multiple operations: Grid tie, Off grid, On/Off grid mixed



This hybrid PV inverter can provide power to connected loads by utilizing PV power, utility power and battery power. When PV energy output is good, it will power connected loads from solar electric (photovoltaic or PV) power, feed power back to grid (utility), and charge battery. When PV energy output is not sufficient for connected loads, this inverter will convert the utility at the same time.

Feed-in is not only choice

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



Power backup when AC failed

PNFG inverter can operate as an off-grid inverter to provide power continuously even without the grid power. It's perfect solution for remote regions or temporary AC power source such as camping or flea market.

Save money by discharging batteries for self-consumption first

PNFG inverter can save money by using batteries energy first when PV energy is low. Until batteries energy is low, PNFG inverter will extract AC power back from the grid.

MODEL	PNFG-2KW	PNFG-3KW
RATED POWER	2000W	3000W
GRID-TIE OPERATION PV INPUT(DC)		
Maximum DC Power	2250W	3200W
Nominal DC Voltage / Maximum DC Voltage	300V DC / 350V DC	360V DC / 500V DC
Start-up Voltage / Initial Feeding Voltage	80V DC / 120V DC	116V DC / 150V DC
MPP Voltage Range	150V DC - 320V DC	250V DC - 450V DC
No. of MPP Trackers / Max. Input Current	1 / 1 x 15A	1 / 1 x 13A
GRID-TIE OPERATION GRID OUTPUT (AC)		
Nominal Output Voltage	101/110/120/127V AC	208/220/230/240V AC
Output Voltage Range	88 - 127V AC*	184 - 264.5V AC*
Nominal Output Current	18A	13.1A*
Power Factor	> 0.99	
GRID-TIE OPERATION EFFICIENCY		
Maximum Conversion Efficiency (DC to AC)	95%	96%
European Efficiency @ Vnominal	94%	95%
OFF GRID OPERATION AC INPUT		
AC Start-up Voltage/Auto Restart Voltage	60 - 70V AC / 85V AC	120 - 140V AC / 180V AC
Acceptable Input Voltage Range	85 - 130V AC*	170 - 280V AC
No. of MPP Trackers / Max. Input Current	30A	25A
OFF GRID OPERATION PV INPUT (DC)		
Maximum DC Voltage	350V DC	500V DC
MPP Voltage Range	150V DC - 320V DC	250V DC - 450V DC
Maximum Input Current	1 / 1 x 15A	1 / 1 x 13A
OFF GRID OPERATION BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	101/110/120/127V AC	208/220/230/240V AC
Output Waveform	Pure Sinewave	
Efficiency (DC to AC)	90%	93%
HYBRID OPERATION PV INPUT (DC)		
Nominal DC Voltage / Maximum DC Voltage	300V DC / 350V DC	360V DC / 500V DC
Start-up Voltage / Initial Feeding Voltage	80V / 120V DC	116V / 150V DC
MPP Voltage Range	150V DC - 320V DC	250V DC - 450V DC
Maximum Input Current	1 / 1 x 15A	1 / 1 x 13A
HYBRID OPERATION GRID OUTPUT (AC)		
Nominal Output Voltage	101/110/120/127V AC	208/220/230/240V AC
Output Voltage Range	88 - 127V AC	184 - 264.5V AC
Nominal Output Current	18A	13.1A*
HYBRID OPERATION AC INPUT		
AC Start-up Voltage/Auto Restart Voltage	60 - 70V AC / 85V AC	120 - 140V AC / 180V AC
Acceptable Input Voltage Range	80 - 130V AC*	170 - 280V AC
Maximum AC Input Current	30A	25A
HYBRID OPERATION BATTERY MODE OUTPUT (AC)		
Nominal Output Voltage	101/110/120/127V AC	208/220/230/240V AC
Efficiency (DC to AC)	90%	93%
HYBRID OPERATION BATTERY & CHARGER		
Nominal DC Voltage	48V DC	
Maximum Charging Current	25A	
GENERAL PHYSICAL / INTERFACE / ENVIRONMENT		
Dimensions, D x W x H (mm)	420 x 415 x 170	
Net Weight (kgs)	15.5	
Communication Port	RS-232 / USB	
Intelligent Slot	Optional SNMP, Modbus, and AS-400 cards available	
Humidity	0 ~ 90% RH (No condensing)	
Operating Temperature	0 to 40 °C	
Altitude	0 ~ 1000m **	

* AC voltage range may vary depending on different AC voltage

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

