

Powernest PNH-5-01 Smart hybrid inverter



Proactive Safety

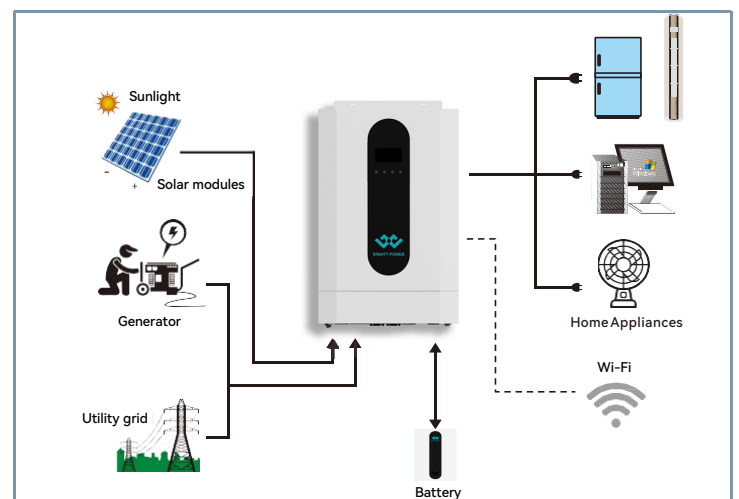
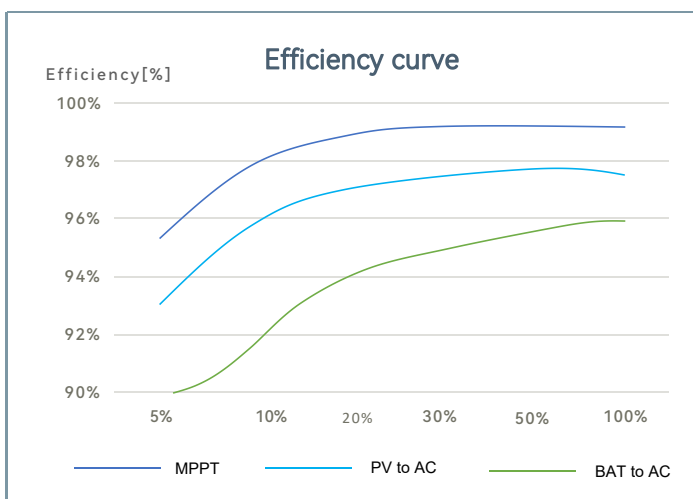
- AI-enabled overload, over temperature and output short circuit protection
- Cold start protection

Highly Efficient

- Parallel and off-grid, bi-directional inverter integrated design
- Parallel machine can form three-phase output
- MPPT efficiency up to 99%

Flexibility and Smart

- DSP design, full digital control
- Support cloud platform and cell phone APP online monitoring
- Multi-way status monitoring and remote fault diagnosis



Powernest PNH-5-01 Specification

Smart hybrid inverter



Technical Specification	PNH-5-01
Input (AC)	
AC input power	5500 W
AC input voltage range	170 V ~ 280 V
AC start voltage	120 V ~ 140 V
Auto-restart voltage	180 V
Nominal input current	23.9 A
Max. input current	40 A
Voltage frequency	50 Hz / 60 Hz
Input (PV)	
Max. DC power	6500 W
Max. DC input voltage ¹	500 V
MPPT voltage range ²	120 V ~ 450 V
Start voltage	116 V / 150 V
Nominal input voltage	360 V
Max. MPPT input current	20 A
Max. short-circuit current	25 A
Number of MPPT input	1
MPPT efficiency	99%
Input (Battery)	
Nominal DC voltage	51.2 V
Operating voltage range	40 V ~ 63 V
Max. operating current	110 A
AC Max. charge current	60 A
PV Max. charge current	80 A
Output (Utility mode)	
Grid adaptation	Single Phase
Nominal output power	5500 W
Nominal output voltage	230 Vac
Output voltage frequency	47.5 Hz ~ 51.4 Hz / 59.3 Hz ~ 60.5 Hz
Nominal output current	23.9 A
Off-grid power output	YES
Output (Battery mode)	
Apparent output power	5500 VA
Nominal output power	230 Vac
Voltage frequency	50 Hz / 60 Hz
Efficiency	97%
Protection & Features	
Input DC switch	YES
Anti-isolation protection	YES
Input reversal protection	YES
Insulation impedance detection	YES
DC surge protection	YES, Equivalent to EN/IEC 61643-11
AC surge protection	YES, Equivalent to EN/IEC 61643-11
Overvoltage protection	YES
Undervoltage protection	YES
Overcurrent protection	YES
Short circuit protection	YES
Over temperature protection	YES
General parameters	
Working temperature	-10°C ~ + 40°C (14°F ~ 104°F)
Storage temperature	-40°C ~ + 70°C (-40°F ~ 158°F)
Operating humidity	0% RH ~ 90% RH
Max. operating altitude	4,000 m (13,123ft.) (Derating above 2,000 m)
Cooling mode	Forced air cooling
Display	LCD , WIFI + APP
Communication	RS232 / RS485 / CAN2.0
Weight	11 kg (24.3 lb)
Dimension (W x H x D)	350 x 450 x 125 mm (13.8 x 17.7 x 4.9 in)
IP rating of enclosure	IP21
Warranty	3 years
Certification	
Security	CCC, CE, NSR

*1 The maximum input voltage is the upper DC voltage limit of the inverter. Any higher input DC voltage may damage the inverter.

*2 Any DC input voltage outside the operating voltage range of the inverter may cause the inverter to operate abnormally