

PowerNest H3

Hybrid Inverter for Sodium-ion Battery



	Datasheet	PNH-8-05	PNH-10-05	PNH-12-05
Input data (PV)	Max. recommended PV power (for module STC)	12,800W	16,000W	19,200W
	Max. input voltage	1,000V		
	Start voltage	180V		
	Nominal voltage	600V		
	MPPT voltage range	150V-850V		
	Max. input current per MPP tracker	20A		40A
	Max. short-circuit current per MPP tracker	25A		50A
	No. of PV strings per MPP tracker	1		2/1
	No. of MPP trackers	2		
Input/Output AC (Including the Gen Port)	AC input/output nominal power(Grid)	16,000W/8,000W	20,000W/10,000W	24,000W/12,000W
	Max. AC input/output apparent power(Grid)	17,600VA/8,800VA	22,000VA/11,000VA	26,400VA/13,200VA
	Max. input/output current(Grid)	26.6A/13.3A	33.3A/16.7A	40.0A/20.0A
	Max. input current(GEN/AC couple)	24.2A	30.4A	36.4A
	Max. continuous AC passthrough current	50.1A		
	Nominal AC voltage/range	220V/380V, 230V/400V, -15%~+10%		
	Nominal AC grid frequency/range	50/60Hz, 45~55Hz/55-65 Hz		
	Adjustable power factor	-1...+1		
	THDi	<3%		
	AC grid connection type	3P3W+PE/3P4W+PE		



Hybrid Inverter H3 (PNH-8/10/12-05), Three Phase, On-Grid

Datasheet		PNH-8-05	PNH-10-05	PNH-12-05
Battery data (DC)	Battery type	Sodium ion battery		
	Battery voltage range/Rated voltage	33-60V /48V		
	Max charging and discharging current	200A	220A	250A
	BMS communication	RS485/CAN		
Backup power (AC)	Rated AC output power	8,000W	10,000W	12,000W
	Max. AC apparent power	2 time of rated power, 10s		
	Rated AC output voltage	220V/380V, 230V/400V		
	Nominal AC output frequency	50/60Hz		
	Max. output current	24.2A@220V 23.2A@230V	30.3A@220V 29A@230V	36.4A@220V 34.8A@230V
	THDv	3% (Linear load)		
	Load unbalance	100% three-phase unbalanced		
	On/off grid transfer time	10ms		
Efficiency	Max. efficiency	97.60%		
	European efficiency	97.00%		
	MPPT efficiency	99.90%		
Protection devices	PV reverse polarity protection	Yes		
	DC switch	Yes		
	DC/AC surge protection	Type II/Type III		
	Insulation resistance monitoring	Yes		
	Residual-current monitoring unit	Yes		
	AC short-circuit protection	Yes		
	AC short-circuit protection	Yes		
	Ground fault monitoring	Yes		
	Grid monitoring	Yes		
	Strings monitoring	Yes		
	Anti-islanding protection	Yes		
	PID protection	Opt		
	AFCI function	Opt		
General	Dimensions (W x H x D)	475 x 698 x 240 mm (18.7 x 27.4 x 9.45 in)		
	Weight	43kg		
	Operating temperature range	-30°C ... +60°C (> 45°C, derating)		
	Noise	≤50dB(A)		
	Relative humidity	0~100%		
	Altitude	3,000m		
	Topology	Transformerless		
	Cooling	Smart air cooling		
	IP degree	IP66		
	Display	OLED/LED+APP		
	Interfaces: RS485/USB	Yes		
	Interfaces: WIFI/LAN	Yes		
	Certification	IEC62109、IEC61000、EN50549-1/-10、EN50549、N4105		