Haier Energy

SINGLE-PHASE HYBRID INVERTER

HH1P-3.6/4/4.6/5/6KL-A



Support DC/AC ratio 200%[1]

Adapted to high-inductance / weak grid,stable operation

4ms seamless switching between on-grid and off-grid

45°C without derating

Adaptive battery compatibility

Colorful LCD touch screen, more friendly

IP66 for outdoor installation

Supports six charge/ discharge time slots

Supports 16-unit parallel connection

Critical load management

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	HH1P-3.6KL-A	HH1P-4KL-A	HH1P-4.6KL-A	HH1P-5KL-A	HH1P-6KL-A
PV String Input Data					
Max. Input Power (W)	7200	8000	9200	10000	10800
Max. Input Voltage (V)			550		
MPPT Voltage Range (V)			125-425		
Full Load MPPT Voltage Range (V)	240-425	240-425	256-425	278-425	300-425
Start-up Voltage (V)			100		
Rated Input Voltage (V)			370		
Max. Input Current per MPPT (A)			18/18		
Max. Short Circuit Current per MPPT (A)			29/29		
Number of MPPT			2		
Number of Strings per MPPT			1/1		
Battery Input Data					
Battery type			Li-ion / Lead-acid		
Rated Battery Voltage (V)			48		
Battery Voltage Range (V)			40 ~ 60		
Max charge / discharge Current (A)	90	100	110	120	120
Peak Overload Current (A)	112.5	125	137.5	150	150
Max charge / discharge Power (W)	3960	4400	5060	5500	5500
Communication			RS485 / CAN		
AC Input/Output Data (On-grid)					
Max. Input Power (W)	5400	6000	6900	7500	9000
Rated Output Power (W)	3960	4400	5060	5500	6000
Peak Apparent Power (W)	6840 (@200ms)	7600 (@200ms)	8740 (@200ms)	9500 (@200ms)	9600 (@200ms)
Rated Output Voltage (V)			230		
Rated Frequency (Hz)			50		
Rated Output Current (A)	15.7	17.4	20	21.7	26
Max. Input / Output Current (A)	23.5 / 17.2	26.0 / 19.1	30.0 / 22.0	32.6 / 23.9	39.1 / 26.0
Power Factor			1.0 (-0.8~ +0.8)		
AC Output Data (Stand Alone)					
Rated Output Power (W)	3960	4400	5060	5500	6000
Rated Output Voltage (V)			230		
Rated Frequency (Hz)			50		
Rated Output Current (A)	15.7	17.4	20	21.7	26
Power Factor			10 (-0.8~+0.8)		
AC Input Data (Generator)					
Rated Input Power (W)	3960	4400	5060	5500	6000
Rated Input Voltage (V)			230		
Rated Frequency (Hz)			50		
Rated Input Current (A)	15.7	17.4	20	21.7	26
Efficiency					
MPPT Efficiency	99.90%	99.90%	99.90%	99.90%	99.90%
Max. Efficiency	97.60%	97.60%	97.60%	97.60%	97.60%
European Efficiency	97.00%	97.00%	97.00%	97.00%	97.00%
General Data					
Operating Temperature Range (°C)	-25 to +60 (Derating 45)				
Humidity	0-100%				
Altitude (m)	≤2000 (>2000 Derating)				
Cooling Method	Natural cooling				
Noise (dB)	<30				
Communication	WIFI				
Display	LCD Color Touchscreen				
Weight (kg)	22.5				
Dimension (W × H × D mm)	386 × 585 × 225				
Topology	Non-isolated (PV- AC) / High frequency isolated (Battery Side)				
Ingress protection	IP66				
Mounting Method	Wall-mounted				
Protective class	Class I				
Overvoltage category	OVC III (AC Main), OVC II (PV)				
Warranty	5 years				
Parallel Units	16				
Protection and Certifications and Standards					
Integrated	PV Input Lightning Protection / Anti-islanding Protection / DC circuit breaker / PV String Input Reverse Polarity Protection / Insulation Resistor Detection / Residual Current Monitoring Unit / Output Over Current Protection / Output Shorted Protection / Output Over Voltage Protectior				
Safety EMC / Standard	EN61000-6-1. EN61000-6-3				
Grid Regulation	NRS2017, IEC61683, IEC62116, IEC61727				

*1: 6kW Support DC/AC ratio 180%