

# Three phase hybrid inverter 5kW to 12kW 2 MPPTs

Models:  
AH-5KTH-G2  
AH-6KTH-G2  
AH-8KTH-G2  
AH-10KTH-G2  
AH-12KTH-G2



## Easy-to-install

- Contact connectors for reliable tool-free DC connection
- Compact wall mount design
- Simple battery and smart meter interfaces for faster installation
- Compatible with high-voltage batteries from leading suppliers



## Reliable

- Up to 150% PV array oversizing for higher yields
- 100% unbalanced three-phase AC output
- AohaiShade - improved generation under non-ideal conditions
- UPS level switching time < 10 ms
- IP66 rated design for outdoor use



## User-friendly

- Setup, commissioning and monitoring via the HaiSolar app
- Intelligent work modes and customisable battery management for DOD / Time of Use / Power setting
- Max. 20A input current, ideal for bifacial and large PV modules

## Technical Datasheet

	AH-5KTH-G2	AH-6KTH-G2	AH-8KTH-G2	AH-10KTH-G2	AH-12KTH-G2
<b>PV Input</b>					
Max. PV array power	7500 Wp	9000 Wp	12000 Wp	15000 Wp	18000 Wp
Max. input voltage	1100 V				
MPP voltage range / rated input voltage	150 V to 950 V / 600 V		200 V to 950 V / 600 V		
Min. input voltage / start voltage	60 V / 180 V				
No. of independent MPPT trackers / strings per MPPT input	2 / 1				
Max. input current per MPP tracker	20 A				
Max. short-circuit current per MPP tracker	30 A				
<b>AC output</b>					
AC voltage range / Nominal AC voltage	270 V to 480 V / 3/N/PE, 220 / 380 V; 230 / 400 V; 240 / 415 V				
Rated AC grid frequency	50 Hz / 60 Hz				
AC grid frequency range	45 ~ 55 Hz / 55 ~ 65 Hz				
Rated apparent power	5000 VA	6000 VA	8000 VA	10000 VA	12000 VA
Max. apparent power	5000 VA	6000 VA	8000 VA	10000 VA	12000 VA
Rated grid output Current (@400 V)	7.3 A	8.7 A	11.6 A	14.5 A	17.4 A
Max. grid output current (@400 V)	8.0 A	9.6 A	12.8 A	16.0 A	19.2 A
Harmonics THDi (@Nominal power)	< 3% (of nominal power)				
<b>AC input</b>					
Rated grid voltage	3/N/PE, 220 / 380 V; 230 / 400 V; 240 / 415 V				
Rated grid frequency	50 Hz / 60 Hz				
Max. input power from grid	10000 W	12000 W	16000 W	20000 W	24000 W
Max. input current from grid	14.5 A	17.4 A	23.2 A	29.0 A	34.8 A
<b>Battery input</b>					
Battery voltage range	120 V to 600 V				
Max. charging / discharging power	5000 W	6000 W	8000 W	10000 W	12000 W
Max. charging current / Max. discharging current	36 A				
Rated charging current / Rated discharging current	30 A				
Battery type	LiFePO4				
<b>EPS output</b>					
Nominal output voltage	3/N/PE, 220 / 380 V; 230 / 400 V; 240 / 415 V				
Nominal output frequency	50 Hz / 60 Hz				
Rated apparent power	5000 VA	6000 VA	8000 VA	10000 VA	12000 VA
Peak output apparent power	2 times of rated power, 10 s				
Rated Current (@400 V)	7.3 A	8.7 A	11.6 A	14.5 A	17.4 A
Max. switch time	< 10 ms				
Output THDv (@Linear load)	2%				
<b>Efficiency</b>					
MPPT efficiency	99.9%				
Euro efficiency / Max. efficiency	97.2% / 98.0%	97.5% / 98.2%	97.9% / 98.4%		
<b>Safety protection</b>					
DC surge protection (Type II, according to EN/IEC 61643-11)	●				
Insulation resistance detection	●				
PV string input reverse polarity protection	●				
Battery input reverse polarity protection	●				
Ground fault monitoring	●				
Residual current monitoring unit	●				
AC short circuit protection	●				
Anti-islanding protection	●				
<b>General data</b>					
Power factor at rated power / adjustable displacement	1 / 0.8 leading to 0.8 lagging				
Dimensions (W / H / D)	545 mm / 465 mm / 205 mm				
Weight	26 kg				
Operating temperature range	-25 °C ... +60 °C				
Cooling concept	Natural convection				
Degree of protection (as per IEC 60529)	IP66				
Max. relative humidity	100%				
Max. operating altitude	4000 m				
<b>Features</b>					
User interface	LED & App				
BMS interface	CAN				
Smart meter interface	RS485				
Internet communication interfaces	Wifi / LAN / 4G				
Digital output (dry contact) / No. of outputs	● / 2				
Digital input (dry contact) / No. of inputs	● / 4				
Integrated power control / export power control	● / ●				

● standard features ○ optional features - not available  
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