

# H1 Series

Three Phase Hybrid Inverter  
(5-10) kW



## KEY FEATURES

### OUTSTANDING PERFORMANCE

- **180V** extra low start-up voltage
- Max. Efficiency **98.4%**
- **MAX. 10.6kW** charge / discharge power
- Three-phase asymmetrical output under **100%** unbalanced loads

### FLEXIBLE APPLICATION

- **150%** DC input oversizing
- **MAX. 48A** PV Input Current
- **< 10ms** off-grid switching

### INTELLIGENT MULTIPLE OPERATING MODES AVAILABLE

- Self-generated, zero power feeder, VPP, battery-free, battery-free & gridless

### SUPERB OFF-GRID LOAD

- Whole-home backup
- Rated output power **10kW/10kVA**
- Peak output power **12000VA**

### FRIENDLY DESIGN

- Die-casting design, fanless design, low noise
- Support AFCI
- Remote troubleshooting and program upgrading



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### Technical data

Type Designation	SiH-5kW-TH	SiH-6kW-TH	SiH-8kW-TH	SiH-10kW-TH
<b>Input (DC)</b>				
Recommend max. PV input power	7500 Wp	9000 Wp	12000 Wp	15000 Wp
Max. PV input voltage	1000V	1000V	1000V	1000V
Start-up input voltage	180V	250V	250V	250V
Rated PV input voltage	600V	600V	600V	600V
MPPT voltage range	150-950V	200-950V	200-950V	200-950V
No. of independent MPPT inputs	2	2	2	2
Default No. of PV strings per MPPT	1\1	1\1	1\1	1\2
Max. input current	32A(16A/16A)	32A(16A/16A)	32A(16A/16A)	48A(16A/32A)
Max. input short-circuit current	40A(20A/20A)	40A(20A/20A)	40A(20A/20A)	60A(20A/40A)
<b>Input/Output (AC)</b>				
Max. AC input power from grid	12500 VA	15000 VA	18600 VA	20600 VA
Rated AC output power	5000 W	6000 W	8000 W	10000 W
Max. AC output power	5500 VA	6600 VA	8800 VA	11000 VA
Rated AC output current	7.6A	9.1A	12.1A	15.2A
Max. AC output current	8.4A	10A	13.3A	16.7A
Rated AC voltage	3/N/PE 220V/380V 230V/400V 240V/415V			
AC voltage range	270V-480V			
Rated grid frequency	50Hz/60Hz			
Grid frequency range	45~55Hz/55~65Hz			
Harmonic(THD) at rated burden	< 3%			
Power factor at rated power	> 0.99			
Adjustable power factor	adj.0.8.overexcited/leading to 0.8 underexcited/lagging			
Grid Typer	Three-phase			
<b>Efficiency</b>				
Max. efficiency	98.00%	98.20%	98.40%	98.40%
European efficiency	97.20%	97.50%	97.90%	97.90%
<b>Protection&amp;Function</b>				
LVRT	Yes	Yes	Yes	Yes
Grid monitoring	Yes	Yes	Yes	Yes
DC reverse polarity protection	Yes	Yes	Yes	Yes
AC short circuit protection	Yes	Yes	Yes	Yes
Leakage current protection	Yes	Yes	Yes	Yes
Surge protection	DC type II /AC type II	DC type II /AC type II	DC type II /AC type II	DC type II /AC type II
DC switch (PV)	Yes	Yes	Yes	Yes
DC fuse (battery)	Yes	Yes	Yes	Yes
Battery input reverse polarity protection	Yes	Yes	Yes	Yes
<b>Battery Data</b>				
Battery Type	Li-ion battery			
Battery voltage	150-600V			
Max. charge current	30 A			
Max. discharge current	30 A			
Max. charge power	7500 W	9000 W	10600 W	10600 W
Max. discharge power	6000 W	7200 W	10600 W	10600 W
<b>General Data</b>				
Dimensions(W*H*D)	450*550*185mm			
Weight	31KG			
Mounting method	Wall-mounting bracket	Wall-mounting bracket	Wall-mounting bracket	Wall-mounting bracket
Topology(Solar/Battery)	Transformerless/Transformerless	Transformerless/Transformerless	Transformerless/Transformerless	Transformerless/Transformerless
Degree of protection	IP65	IP65	IP65	IP65
Operating ambient temperature range	-25°C~60°C, No derating below 45 °C	-25°C~60°C, No derating below 45 °C	-25°C~60°C, No derating below 45 °C	-25°C~60°C, No derating below 45 °C
Allowable relative humidity range	0~100%	0~100%	0~100%	0~100%
Cooling method	Natural convection	Natural convection	Natural convection	Natural convection
Max. operating altitude	4000m	4000m	4000m	4000m
Display	LED	LED	LED	LED
Communication	RS485/CAN/WLAN	RS485/CAN/WLAN	RS485/CAN/WLAN	RS485/CAN/WLAN
DI/DO	DI×1/DO×1/DRM	DI×1/DO×1/DRM	DI×1/DO×1/DRM	DI×1/DO×1/DRM
DC connection type	MC4	MC4	MC4	MC4
Battery connection type	MC4	MC4	MC4	MC4
AC connection type	Plug and play connector	Plug and play connector	Plug and play connector	Plug and play connector
<b>Backup Data(off-grid mode)</b>				
Rated voltage	3 / N / PE, 220 Vac / 230 Vac / 240 Vac (±2%)			
Frequency range	50Hz/60Hz(±0.5%)			
Total output THDV for liner load	≤2%			
Switch time to emergency mode	≤10 ms			
Rated output power	5000 W / 5000 VA	6000 W / 6000 VA	8000 W / 8000 VA	10000 W / 10000 VA
Peak output power	6000VA 5min/10000 VA,10s	7200VA 5min/ 10000 VA,10s	9600 VA,5min	12000 VA,5min