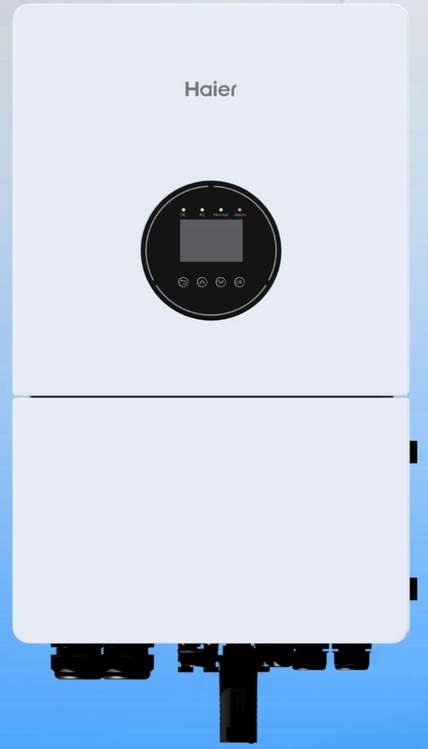
Three-Phase Hybrid Inverter HH3P-12/15/18/20KL-A





Rapid Setup

- Quick and easy-to-install with standard tools
- Support DC and AC coupling methods
- Smart setup, commissioning and monitoring via ihaier App
- Support multiple communication methods, Bluetooth, Wi-Fi, 4G and LAN.
- Support OTA remote upgrade

Superior Performance

- 4 MPPTs, up to 38 A input per
- MPPT, perfectly compatible with high-power components
- Wide Temperature operating range, 45°C Without Derating
- Compatible with diesel generator Shadow management
- Dynamic export power control

Intelligent Management

- Supports 10-unit parallel operation
- UPS-level switching time < 10 ms
- String-level current monitoring
- Intelligent operation modes and Smart battery management
- Intelligent arc fault detection (AFCI)

User friendly

Up to 200 % PV array oversizing

IP66 rated design for indoor and outdoor use

100% unbalanced output

DC&AC Type II surge protection Up to 350 A charge / discharge current

SBEON | Haier Energy

	HH3P-12KL-A	HH3P-15KL-A	HH3P-18KL-A	HH3P-20KL-A
PV String Input Data				
Max. Input array Power (Wp)	19200	24000	28800	32000
Max. Input Voltage (V)	800			
MPPT Voltage Range (V)	160 - 650			
Start-up Voltage (V)	160			
Rated Input Voltage (V)	550			
Max. Input Current per MPPT (V)	36 / 36			
Max. Short Circuit Current per MPPT (A)	54 / 54			
Number of MPPT	2			
Number of Strings per MPPT	2			
Battery Input Data				
Battery type	Lead-acid or Lithium-ion			
Rated Battery Voltage (V)	48			
Battery Voltage Range (V)	40 – 60			
Max charge / discharge Current (A)	250	280	230	350
Max charge / discharge Power (W)	15000	15000	18000	20000
Charging Strategy for Li - ion Battery	Self - adaption to BMS			
Number of Battery Input	2			
Communication	RS4BS/CAN			
AC Input / Output Data (On-grid)				
Rated AC Input/Output Active Power (W)	12000	15000	18000	20000
Rated AC Input/Output Apparent Power (VA)	13200	16500	19800	22000
Rated AC Input/Output Current (A)	18.2/17.4	22.8/21.8	27.3/26.1	30.4/29.0
Max. AC Input/Output Current (A)	30.0/10.2	25.0/24.0	30.0/28.7	33.4/31.9
Max. Continuous AC Passthrought (gld to load)(0)	70			
Peak Output Power (off - grid)/W)	2 times of nonimal power, 10s			
Power Factor Adjustment Range	0.8 leading to 0.8 legging			
Rated Input/Output Voltage/Range (V)	220/380 , 230/400			
AC Voltage range (V)	0.85Un - 1.1Un			
Rated Input/Output Grid Frequency/Range(Hz)	50/45 - 16, 60/55 - 45			
Grid Connection Form	3L + N + PE			
Total Current Harmenic Distortion THDI	< 3% (of nonimal power)			
DC Injection Current	< 0.5% In			
Switching time	< 10 ms			
AC Input Data (Generator)				
Rated Input Power (W)	12000	15000	18000	20000
Rated Input Voltage (V)	220/300 , 330/400			
Rated Frequency (Hz)	50 / 60			
Rated Input Current (A)	17.4	21.8	26.1	29
Efficiency				
MPPT Efficiency	>99.00%			
Max. Efficiency	97.60%			
European Efficiency	97.00%			
General Data				
Operating Temperature Range (°C)	- 40 to + 60, > 45°C Derating			
Altitudey	0-100%			
Altitude (m)	3000m			
Type of Cooling	Air cooling			
Display	LCD			
Weight (kg)	50			
Dimension (W = H × D mm)	450×750×265			
Topology	Non - Ioslated			
Ingress protection	IP66			
Mounting Method	Wall-mounted			
Protective class	Class I			
Overvoltage category	OVC III(DC), DVC III(AC)			
Warranty	5 years			
Parallel Units	10			
Protection and Certifications and Communication				
Safety Protection	Anti-islanding Protection / DC Switch / DC Reverse Pelarity Protection / AC Output Overcurrent Protection / AC Output Short Circuit Protection / AC Output Overvoltage Protection / Insulation Impedance Detection / Residual Current Detection / Shadow management / Pre Fault Circuit Interruptertoptional)			
Surge Protection Level	TYPE IIIDC), TYPE II(AC)			
Communication Interface	RS485/RS222/CAN			
Monitor Mode	Wi-Fi/Bluetooth/AB/LAN(optional)			