



Three-Phase Hybrid Inverter

HUA-8~15K3P-BL

「8/10/12/15kW」

Features

⚡ PV Oversizing

Up to 200% PV accessing, 160% PV oversizing

∞ Unbalanced Output

Support 150% three-phase unbalanced output to improve flexibility of power distribution

⚙️ High-Power Density

A compact size for flexible installation and reduced transportation cost

🔌 Overload Capacity

Peak power able to reach 2 times the rated power for 10s in off-grid mode

⚡ Parallel Connection

Support parallel connection up to 9 units

🔋 Efficient Battery Charge / Discharge

Max. battery charge/discharge current of up to 290A

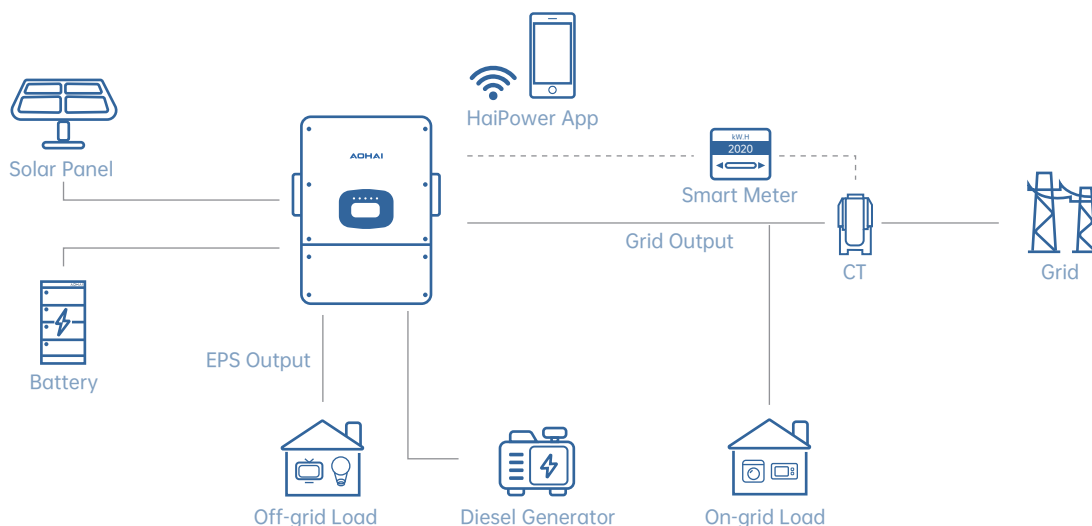
📱 Touch Screen

4.3" 800 x 480 interactive display without physical keys

🔗 Flexible Connection

- GEN port for generator input
- Dual AC outputs for smart load management
- AC coupling function

Energy Storage Solution



Specifications

Model	HUA-8K3P-BL	HUA-10K3P-BL	HUA-12K3P-BL	HUA-15K3P-BL
Solar Input Data				
Recommended Max. PV Array Size	16000Wp	20000Wp	24000Wp	30000Wp
Max. PV Input Power	12800W	16000W	19200W	24000W
Max. Input Voltage		800V		
Start-up Voltage		160V		
Nominal Input Voltage		550V		
MPPT Operating Voltage Range			160~650V	
MPPT Voltage Range (full load)	350~650V	350~650V	350~650V	400~650V
Max. Input Current per MPPT			27A+20A	
Max. Short Circuit Current per MPPT			40A+30A	
Number of MPPT			2	
Number of Strings per MPPT			2+1	
Max. Inverter Backfeed Current to The Array			0	
Battery Data				
Battery Type		Lead-acid or Lithium-ion		
Nominal Battery Voltage		48V		
Battery Voltage Range		40V~60V		
Max. Charge / Discharge Current	180A	220A	250A	290A
Max. Charge / Discharge Power	8000W / 8000W	10000W / 10000W	12000W / 12000W	15000W / 15000W
Battery Communication		Self-adaption to BMS		
Number of Battery Input		2 (in parallel)		
AC Input / Output Data (Grid, Load & Generator)				
Nominal AC Input/Output Active Power	8000W	10000W	12000W	15000W
Max. AC Input / Output Apparent Power	8800VA	11000VA	13200VA	16500VA
Peak Apparent Power (off-grid) (VA)	2 times of rated power, 10s			
Nominal AC Input / Output Current	12.2A / 11.6A / 11.2A	15.2A / 14.5A / 13.9A	18.2A / 17.4A / 16.7A	22.8A / 21.8A / 20.9A
Max. AC Input / Output Current	13.4A	16.7A	20A	25A
Max. Three-phase Unbalanced Output Current	18.2A	22.8A	27.3A	34.1A
Max. Continuous AC Passthrough (grid to load)	50A	50A	50A	50A
Max. Output Fault Current	26.8A	33.4A	40A	50A
Max. Output Over Current Protection		73.5A		
Nominal Input / Output Voltage		220V / 380V, 230V / 400V, 240V / 415V		
Input/Output Voltage Range (V)		0.85Un-1.1Un		
Grid Connection Form		3L+N+PE		
Nominal Grid Frequency / Range		50/45-55Hz, 60/55-65Hz		
Power Factor		~1 (0.8 leading to 0.8 lagging)		
THD(nominal power)		< 3%		
DC Injection Current		< 0.5%In		
Switch time(ms)		4		
Efficiency				
Max. Efficiency		97.60%		
European Efficiency		97.0%		
MPPT Efficiency		>99.9%		
Protection				
PV Reverse Polarity Protection		yes		
Anti-Islanding Protection		yes		
Output Short Protection		yes		
Ground Fault monitoring		yes		
Insulation Resistance Monitoring		yes		
Over-current Protection		yes		
Over-temperature Protection		yes		
AFCI Protection		Optional		
DC Switch		yes		
Residual Current Monitoring		yes		
Grid Monitoring		yes		
AC / DC Surge Protection		TYPE II (DC), TYPE II (AC)		
General Data				
Dimension (W*H*D)	450mm*660mm*240mm (Excluding connectors and brackets)			
Weight	39kg			
Relative Humidity	0~100%			
Operating Temperature Range	-40°C to +60°C, >45 Derating			
Storage Temperature	-45°C to +85°C			
Noise Emission	<55dB			
Altitude	3000m			
Cooling Method	Intelligent Air Cooling			
Ingress Protection	IP66			
Over Voltage Category	OVC II(DC), OVC III(AC)			
Protective Class	I			
Standby / Internal Consumption	<25W (night)			
Topology	Non-Isolated			
Communication Interface	RS485 / CAN / Bluetooth / WIFI, LAN / 4G / GPRS (optional)			
Power Grid Side Energy Detection Method	3 CTs, Meter (optional)			
Display	LCD & APP			
PV Connector	MC4 compatible connector			
Battery Connector	Connector			
AC Connector	Connector			