

**1KOM
MA5°**

1KOMMA5° SINGLE-PHASE HYBRID INVERTER

- **#newenergy**
 - × Developed for Heartbeat AI
 - × Can be combined with the 1KOMMA5° battery
- **Powerful**
 - × 1-phase hybrid inverter
 - × Up to 4 MPPTs
 - × Low starting voltage
 - × Backup

1K5° single-phase
Hybrid Inverter 8 kW + 10 kW



SINGLE-PHASE HYBRID INVERTER

MODEL		1K5-1P-HI-8	1K5-1P-HI-10
ELECTRICAL CHARACTERISTICS	Battery Type	Lithium-Ion battery (LFP)	
	Battery Voltage [V]	85 ~ 480	
	Max. Charge/Discharge Current [A]	50	
	Communication Interface	CAN / RS485	
	Reverse Connect Protection	Yes	
INPUT PV (ONLY FOR KH)	Max. PV Array Power [Wp]	16,000	20,000
	Max. Input Power [W]	12,000	15,000
	Max. DC Voltage [V]	600	
	Normalinal DC Operating Voltage [V]	360	
	Max. Input Current (Input A / Input B) [A]	16 / 16 / 16	16 / 16 / 16 / 16
	Max. Short Circuit Current (Input A / Input B) [A]	20 / 20 / 20	20 / 20 / 20 / 20
	Max. Inverter Backfeed Current to the Array [mA]	0	
	MPPT Voltage Range [V]	80 ~ 500	
	Start-up Voltage [V]	75	
	No. of MPP Trackers	3	4
	Strings Per MPP Tracker	1	
	DC Disconnection Switch	Optional	
AC INPUT AND OUTPUT (GRID)	Max AC Power [VA]	16,000	18,000
	Max. AC Current [A]	69.6	78.3
	Rated Grid Voltage (AC Voltage Range) [V]	220 / 230 / 240 (180 ~ 270)	
	Rated Grid Frequency [Hz]	50 / 60, ±5	
	Normalinal AC Power [VA]	8,000	10,000
	Max. Apparent AC power [VA]	8,800	10,500
	Rated Grid Voltage (AC Voltage Range) [V]	220 / 230 / 240 (180 ~ 270)	
	Rated Grid Frequency [Hz]	50 / 60, ±5	
	Normalinal AC Current [A]	34.8	43.5
	Max. AC Current [A]	38.3	45.7
	Displacement Power Factor	0.8 Leading to 0.8 Lagging	
	Total Harmonic Distortion (THDi, Rated Power) [%]	<3	
EPS OUTPUT (WITH BATTERY)	Max. EPS Power [VA]	8,000	18,000
	EPS Rated Voltage [V], Frequency [Hz]	220/230/240, 50 / 60	
	Max. EPS Current [A]	38.4	45.5
	EPS Peak Power [W]	10,000 60 s	12,000 60 s
	Switch Time [ms]	<20	
	Total Harmonic Distortion (THDv, Linear Load) [%]	<2	
	Parallel Operation	Yes @max10PCS	
EFFICIENCY	MPPT Efficiency [%]	99.90	
	Euro-efficiency [%]	97.40	
	Max. Efficiency [%]	97.80	
	Max. Battery Charge Efficiency (PV to BAT) (@full load) [%]	98.50	
	Max. Battery Discharge Efficiency (BAT to AC) (@full load) [%]	97.00	
PROTECTION	PV Reverse Polarity Protection	Yes	
	Battert Reverse Protection	Yes	
	Anti-Islanding Protection	Yes	
	Output Short Protection	Yes	
	Leakage Current Protection	Yes	
	Insulation Resistor Detection	Yes	
	Over-current Protection / Over-temperature Protection	Yes	
	Over Voltage Category	DC: Type III AC: Type II	
	AC/DC Surge Protection	Type II / Type II	
	AFCI Protection	Yes	
GENERAL DATA	Dimensions (W×H×D) [mm]	450×527×208	
	Weight [kg]	29 (KH) / 27.5 (KA)	
	Cooling Concept	Natural	
	Topology	Non-isolated	
	Communication	Meter(Optional), WIFI, 4G(Optional), DRM, USB, CT, RS485	
	LCD Display	Backlight 16×4 Character	
	Ingress Protection	IP65	
	Protective Class	Class I	
	Operating Temperature Range [°C]	-25 ~ +60 (Derating at +45)	
	Humidity [%]	0 ~ 95 (Non-condensing)	
	Altitude [m]	<2,000	
	Storage Temperature [°C]	-40 ~ +70	
	Noise Emission (Typical) [dB]	<30	
	Standby Consumption [W] (Ldle)	<15	
	Monitoring Module	WiFi, LAN (Optional), 4G (Optional)	
	Communication	RS485, DRM, Ripple Control, USB, CAN	
	Display	LCD, App, Website	
STANDARD COMPLIANCE	Safety	IEC62109-1 / IEC62109-2 / IEC 62477-1	
	EMC	EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3	
	Certification	G99 / NRS 097-2-1 and so on	
	Warranty* [year]	10	