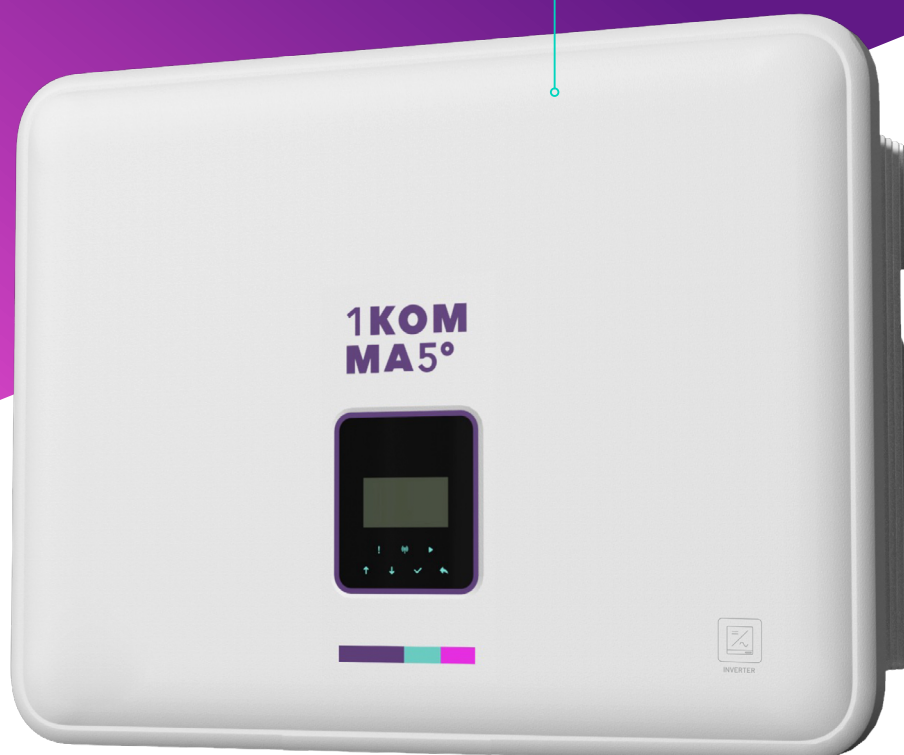


1KOM MA5°

1KOMMA5° HYBRID-INVERTER

- **#newenergy**
 - × Developed for Heartbeat AI
 - × Can be combined with the 1KOMMA5° battery
- **Powerful**
 - × 3-phase hybrid inverter
 - × 3 MPPTs
 - × Low starting voltage
- **Backup**
 - × Full power – rated output even in backup power mode¹
 - × 100 % unbalanced load capable and black start capable
 - × Solar recharging of the battery

1K5° Hybrid-Inverter 5kW
1K5° Hybrid-Inverter 8kW
1K5° Hybrid-Inverter 10kW
1K5° Hybrid-Inverter 12kW
1K5° Hybrid-Inverter 15kW



COMPATIBILITY WITH²



HYBRID-INVERTER

MODEL	1K5-HI-5-V1	1K5-HI-8-V1	1K5-HI-10-V1	1K5-HI-12-V1	1K5-HI-15-V1
PV INPUT	Max. DC Input Power [W]	11,000	17,600	18,000	22,500
	Max. DC Voltage [V]			1,000 ³	22,500
	Normalinal DC Operating Voltage [V]			620	
	Max. MPPT Input Current [A]			20/20/20	
	Max. MPPT Short Circuit Current [A]			25/25/25	
	Max. MPPT Input Power [W]			10,000/10,000/10,000	
	Min. Operating PV Voltage [V]			90 ⁴	
	MPPT Voltage Range [V]			120 ~ 950	
	Start-up Input Voltage [V]			140	
	MPPT Voltage Range [V](Full Load)	120 ~ 850	140 ~ 850	175 ~ 850	210 ~ 850
BATTERY	No. of MPP Trackers			3	
	Strings per MPP Tracker			1+1+1	
	Battery Type			Lithium-Ion battery (LFP)	
	Battery Voltage [V]			100 ~ 800	
	Min. Operating Battery Voltage [V]			100	
	Min. Battery Voltage @Full AC Load [V]	108	160	210	250
AC OUTPUT	Max. Charge/ Discharge Current [A]			50.0	310
	Communication Interface			CAN	
	Normalinal AC Power [W]	5,000	8,000	10,000	12,000
	Max. Apparent AC Power [VA]	5,500	8,800	11,000 ⁵	13,200
	Rated Grid Voltage (AC Voltage Range) [V]			400/230 Vac; 380/220 Vac, 3L/N/PE	15,000
	Rated Grid Frequency [Hz]			50/60, ±5	16,500
	Rated AC Current [A](Per Phase)	7.6	12.1	15.2	18.2
	Max. AC Current [A](Per Phase)	8.3	13.3	16.7	20.0
	Power Factor			1 (Adjustable from 0.8 leading to 0.8 lagging)	22.7
	THDI [%]			3 @rated power	25.0
AC INPUT	Max. AC Power [VA]	6,000	9,600	12,000	14,400
	Rated Grid Voltage (AC Voltage Range) [V]			400/230 Vac; 380/220 Vac, 3L/N/PE	16,000
	Rated Grid Frequency [Hz]			50/60, ±5	
	Max. AC Current [A](Per Phase)	9.1	14.5	18.2	21.8
EPS OUTPUT				21.8	24.2
	Max. Apparent AC Power [VA]	5,000	8,000	10,000	12,000
	Peak Apparent AC Power [VA](60s)	6,000	9,600	12,000	14,400
	Rated Output Voltage [V]			400/230 Vac; 380/220 Vac, 3L/N/PE	15,000
	Rated Grid Frequency [Hz]			50/60	
	EPS Max. Current [A](Per Phase)	7.2	11.6	14.5	17.4
	Power Factor			1 (Adjustable from 0.8 leading to 0.8 lagging)	21.7
	Switch Time [ms]			<20	
PROTECTION + EFFICIENCY	THDV [%]			<3 @Linear load	
	MPPT Efficiency [%]			99.90	
	Max. Efficiency [%]			98.20	
	Euro-Efficiency [%]			97.20	
	PV Reverse Polarity Protection			Yes	
	Battery Reverse Protection			Yes	
	Anti-Islanding Protection			Yes	
	Output Short Protection			Yes	
	Leakage Current Protection			Yes	
	Insulation Resistor Protection			Yes	
GENERAL DATA	Over Voltage Category			III (AC-Site), II (DC-Site)	
	Reverse Connect Protection			Yes	
	Over-Current Protection/Over-Temperature Protection			Yes	
	DC/AC Surge Protection			Type II (PV) / Type II (AC)	
	AFCI Protection			Yes	
	DC Switch			Yes	
	Dimensions (W×H×D) [mm]			600×450×226	
	Dimension of Packing (W×H×D) [mm]			665×545×390	
	Net Weight [kg]			34	
	Gross Weight [kg]			40	
	Installation			Wall-mounted	
	Operating Temperature Range [°C]			- 25 ~ +60 (Derating at 45)	
	Storage Temperature [°C]			40 ~ +70	
	Storage/Operation Relative Humidity [%]			0 ~ 100	
	Altitude [m]			<4,000 @ Derating exceeding 2,000	
	Protective Class			I	
	Ingress Protection			IP65 (For outdoor use)	
	Standby Consumption [W]			20	
	Standby Mode			Yes	
	Cooling	Natural	Natural	Natural	FAN cooling
	Noise Grade [dB]	<40	<40	<40	<55
	Inverter Topology			Non-isolated	FAN cooling
	Communication Interface	Ethernet, EMS(RS485), Meter, WiLAN(Wifi+LAN+Bluetooth), 4G (Optional), DRM, Ripple Control, USB, BMS (CAN), SG Ready			
	LCD Display			Backlight 16 × 4 character	
	Warranty ⁶ [year]			10	
	Button			Capacitive touch sensor × 4	
	Buzzer			1, inside (EPS & Earth fault)	

³ For 1,000 V system, PV Maximum operating voltage is 950 V. ⁴ The starting working voltage of the power supply is 90 V.

⁵ Belgian safety regulations require an apparent power of 10,000 W to be 10,000 VA. ⁶ See warranty terms and conditions.