



# KH/KA

SINGLE-PHASE **HYBRID/AC INVERTER**



## HIGH VOLTAGE

Includes high-voltage batteries for maximum round-trip efficiency.



## EASY INSTALLATION

Flexible configuration, plug and play set-up, built-in fuse protection.



## IP65 RATED

Engineered to last with maximum flexibility. Suitable for outdoor installation.



## REMOTE MONITORING

Monitor your system remotely via smartphone app or web portal.



Advanced System Monitoring  
with **FoxCloud V2.0**

REFINED – POWERFUL – FLEXIBLE

Harness the power of the sun day and night with the ground-breaking range of Hybrid & AC inverter from Fox ESS. Full of advanced features and compatible with our very own range of high-voltage batteries, the hybrid range from Fox ESS.

7kW ...>> 10.5kW



For more information about the Fox ESS range, visit:  
[www.fox-ess.com](http://www.fox-ess.com)



up to  
**10.5kW**  
charge/  
discharge

TECHNICAL SPECIFICATIONS

MODEL	KH7 KA7	KH8 KA8	KH9 KA9	KH9.9 KA9.9	KH10 KA10	KH10.5 KA10.5
ELECTRICAL CHARACTERISTICS						
Battery Type	Li-Ion					
Battery Voltage Range [V]	85 ~ 480					
Recommended Battery Voltage [V]	300					
Max. Charge Current [A]	50					
Max. Discharge Current [A]	50					
Communication Interfaces	CAN / RS485					
Reverse Connect Protection	YES					
INPUT PV (FOR KH ONLY)						
Max. Array Power [Wp]	15000	16000	18000	20000	20000	21000
Max. Input Power [W]	10500	12000	13500	15000	15000	15000
Max. DC Voltage [V]	600					
Nominal DC Operating Voltage [V]	360					
Max. Input Current (Input A / Input B) [A]	16 / 16 / 16	16 / 16 / 16	16 / 16 / 16 / 16	16 / 16 / 16 / 16	16 / 16 / 16 / 16	16 / 16 / 16 / 16
Max. Short Circuit Current (Input A / Input B) [A]	20 / 20 / 20	20 / 20 / 20	20 / 20 / 20 / 20	20 / 20 / 20 / 20	20 / 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	3	4	4	4	4
Strings per MPP Tracker	1					
DC Disconnection Switch	PEDS150-HM55R-6, 6 layers					
OUTPUT AC						
Nominal AC Power [VA]	7000	8000	9000	9900	10000	10500
Rated Output Apparent Power [VA]	7000	8000	9000	9900	10000	10500
Max. Apparent AC power [VA]	7700	8800	9900	9900	10500	10500
Rated Grid Voltage (AC Voltage Range) [V]	220 / 230 / 240 (180 ~ 270)					
Rated Grid Frequency [Hz]	50 / 60, ±5					
Nominal AC Current [A]	30.4	34.8	39.1	43.0	43.5	45.7
Max. AC Current [A]	33.5	38.3	43.0	45.0	45.7	45.7
Displacement Power Factor	0.8 Leading to 0.8 Lagging					
THDi (Rated Power) [%]	<3					
INPUT AC						
Max AC Power [VA]	14000	16000	18000	18000	18000	18000
Max. AC Current [A]	60.9	69.6	78.3	78.3	78.3	78.3
Rated Grid Voltage (AC Voltage Range) [V]	220 / 230 / 240 (180 ~ 270)					
Rated Grid Frequency [Hz]	50 / 60, ±5					
EPS OUTPUT (WITH BATTERY)						
Max. EPS Power [VA]	7000	8000	9000	9900	10000	10500
EPS Rated Voltage [V], Frequency [Hz]	220/230/240, 50 / 60					
Max. EPS Current [A]	31.8	36.4	40.9	45.0	45.5	47.7
EPS Peak Power (60s) [W]	10000	10000	12000	12000	12000	12000
Switch Time [ms]	<10					
THDv (Linear Load) [%]	<2					
Parallel Operation	Yes @max10PCS					
EFFICIENCY						
MPPT Efficiency [%]	99.90					
European 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					
Battery Reverse Protection	YES					
Anti-islanding Protection	Active Frequency Drift with Positive Feedback					
Output Short Protection	YES					
Leakage Current Protection	YES					
Insulation Resistor Detection	YES					
Overcurrent Protection / Overtemperature Protection	YES					
Overvoltage Category	III (AC side), II (DC side)					
AC/DC Surge Protection	Type II / Type II					
AFCI Protection	Optional					
POWER CONSUMPTION						
Standby Consumption [W] (Idle)	<15					
STANDARD						
Safety	IEC62109-1 / IEC62109-2 / IEC 62477-1					
EMC	EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3					
Certification	G99 / EN50549 / NRS 097-2-1					
ENVIRONMENT LIMIT						
Ingress Protection	IP65					
Protective Class	Class I					
Operating Temperature Range [°C]	-25 ~ +60 (Derating at +45)					
Humidity [%]	0 ~ 95 (No condensation)					
Altitude [m]	<2000					
Storage Temperature [°C]	-40 ~ +70					
Noise Emission (Typical) [dB]	<30					
DIMENSION AND WEIGHT						
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					
MANUFACTURE						
Country of origin	China					

\* More technical characteristics are available on demand and customized.