



# 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**

up to  
**10.5kW**  
charge/  
discharge

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)



# TECHNICAL SPECIFICATIONS

MODEL	KH7 KA7	KH8 KA8	KH9 KA9	KH9.9 KA9.9	KH10 KA10	KH10.5 KA10.5
<b>ELECTRICAL CHARACTERISTICS</b>						
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		
<b>INPUT PV (FOR KH ONLY)</b>						
Max. PV Array Power [Wp]	14000	16000	18000	20000	20000	21000
Max. Input Power [W]	10500	12000	13500	15000	15000	15000
Max. DC Voltage [V]				600		
Normal DC Operating Voltage [V]				360		
Max. Input Current (Input A / Input B) [A]	16 / 16 / 16 <sup>(1)</sup>				16 / 16 / 16 / 16 <sup>(1)</sup>	
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		
<b>OUTPUT AC</b>						
Normal AC Power [W]	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		
Normal 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	47.7
Displacement Power Factor				0.8 Leading to 0.8 Lagging		
Total Harmonic Distortion (THDi, Rated Power) [%]				<3		
<b>INPUT AC</b>						
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		
<b>EPS OUTPUT (WITH BATTERY)</b>						
Max. EPS Power [VA]	7000	8000	9000	10000	10000	10500
EPS Rated Voltage [V], Frequency [Hz]				220/230/240, 50 / 60		
Max. EPS Current [A]	31.8	36.4	40.9	45.5	45.5	47.7
EPS Peak Power [W]	10000, 60s				12000, 60s	
Switch Time [ms]				<20		
Total Harmonic Distortion (THDv, Linear Load) [%]				<2		
Parallel Operation				Yes @max10PCS		
<b>EFFICIENCY</b>						
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		
<b>PROTECTION</b>						
PV Reverse Polarity Protection				YES		
Battery 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				III (AC side), II (DC side)		
AC/DC Surge Protection				Type II / Type II		
AFCI Protection				YES		
<b>POWER CONSUMPTION</b>						
Standby Consumption [W] (Idle)				<15		
<b>STANDARD</b>						
Safety				IEC62109-1 / IEC62109-2 / IEC 62477-1		
EMC				EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3		
Certification				EN50549 / NRS 097-2-1		
<b>ENVIRONMENT LIMIT</b>						
Ingress Protection				IP65		
Protective Class				Class I		
Operating Temperature Range [°C]				-25 ~ +60 (Derating at +45)		
Humidity [%]				0 ~ 95 (Non-condensing)		
Altitude [m]				<2000		
Storage Temperature [°C]				-40 ~ +70		
Noise Emission (Typical) [dB]				<30		
<b>DIMENSION AND WEIGHT</b>						
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		
<b>MANUFACTURE</b>						
Country of origin				China		

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

<sup>(1)</sup> The maximum generating power of each pv string is limited to 3300 watts.