FOX ESS

DATASHEET

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

up to **10.5kW** charge/ discharge



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

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	43.0	45.7	45.7
Displacement Power Factor	0.8 Leading to 0.8 Lagging					
THDi (Rated Power) [%]	<3					
INPUT AC						
Max. AC Current [A]	60.9	69.6*1	78.3*1	78.3*1	78.3*1	78.3*1
Max. AC Power [VA]	14000	16000*2	18000*2	18000*2	18000*2	18000*2
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.
For Australian market KH model series (except KH7), *1 is 63 A a.c. and *2 is 14500 VA.