FOX ESS

DATASHEET

Single Phase Hybrid / AC Inverter

KH7 / KH8 / KH9 / KH10 / KH10.5
KA7 / KA8 / KA9 / KA10 / KA10.5

K SERIES

SINGLE PHASE **INVERTER**

Harness the power of the sun day and night with the ground-breaking range of Hybrid & AC inverters from FOX. Full of advanced features and compatible with our very own range of high-voltage batteries, the hybrid range from FOX is a new class of Inverter.

FOX storage solutions are available with advanced and intuitive app based remote control and monitoring functionality.

Easy Installation

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

High Voltage

Connects to high-voltage batteries for maximum round-trip efficiency.

IP65 Rated

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

Remote Monitoring

Monitor your system remotely via smartphone app or web portal.

REFINED – POWERFUL – FLEXIBLE

BATTERY EXPANSION

EASY UPGRADE

Expand your system easily by simply adding additional batteries. Eight batteries can be installed in series, providing up to 32.8kWh of storage capacity.

For more about the FOX range, visit:

WWW.FOX-ESS.COM

TECHNICAL SPECIFICATIONS

Model	KH7 KA7	KH8 KA8	KH9 KA9	KH10 KA10	KH10.5 KA10.5
ELECTRICAL CHARACTERISTICS					
Battery Type			Li-Ion		
Battery Voltage Range [V]			85-450		
Recommended Battery Voltage [V]			300VDC		
Max. Charge Current [A]			50		
Max. Discharge Current [A]			50		
Communication Interfaces			CAN/ RS485		
Reverse Connect Protection			YES		
INPUT PV (FOR KH ONLY)					
Max. Recommended DC Power [W]	9100	10400	11700	13000	15000
Max. DC Voltage [V]			600		
Norminal 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		
OUTPUT AC					
Norminal AC Power [VA]	7000	8000	9000	10000	10500
Max. Apparent AC power [VA]	7700	8800	9900	10500	10500
Rated Grid Voltage (AC Voltage Range) [V]			220/230/240 (180 to 270)		
Rated Grid Frequency [Hz]			50/60,±5		
Norminal AC Current [A]	30.4	34.8	39.1	43.5	45.7
Max. AC Current [A]	33.5	38.3	43.0	45.7	45.7
Displacement Power Factor			0.8 Leading to 0.8 Lagging		
Total Harmonic Distortion (THDi, Rated Power)			<3%		
INPUT AC					
Max AC Power [VA]	14000	16000	18000	18000	18000
Max. AC Current [A]	60.9	69.6	78.3	78.3	78.3
Rated Grid Voltage (AC Voltage Range) [V]			220/230/240 (180 to 270)		
Rated Grid Frequency [Hz]			50/60,±5		
EPS OUTPUT (WITH BATTERY)					
Max. EPS Power [VA]	7000	8000	9000	10000	10500
EPS Rated Voltage [V], Frequency [Hz]			230VAC. 50/60		
Max. EPS Current [A]	30.4	34.8	39.1	43.5	45.7
EPS Peak Power [W]		10000, 30s		12000, 60s	
Switch Time [s]			<20ms		
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 Charge / 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			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 / -2 / IEC62040 / IEC 62477		
EMC			EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-3		
Cetification			G98 / G99 /AS4777.2 / EN50549-1 / CEI 0-21 / VDE-AR-N 4105 / NRS 097-2-1 and so on		
ENVIRONMENT LIMIT					
Ingress Protection			IP65		
Protective Class			Class I		
Operating Temperature Range [°C]			-25..... +60°C (Derating at +45°C)		
Humidity [%]			0～95 (Non-condensing)		
Altitude [m]			<2000		
Storage Temperature [°C]			-40..... +70°C		
Noise Emission (Typical) [dB]			<30		
DIMENSION AND WEIGHT					
Demensions (W * H * D) [mm]			450*527*203mm		
Weight [kg]			29Kg		
Cooling Concept			Natural		
Topology			Non-isolated		
Communication			Ethernet, Meter, WIFI, 4G (Optional), DRM, USB, CT, RS485		
LCD Display			Backlight 16*4 Character		

* More technical characteristics are avaliable on demand and customized.