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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.



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.



BATTERY EXPANSION EASY UPGRADE



Expand your system easily by simply adding additional batteries. Seven batteries can be installed in series, providing up to 20.16kWh of storage capacity.

> For more about the FOX range, visit: WWW.FOX-ESS.COM









ELECTRICAL CHARACTERISTICS Battery Type Battery Voltage Range [V] Recommended Battery Voltage [V] Max. Charge Current [A] Max. Discharge Current [A] Communication Interfaces Reverse Connect Protection INPUT PV (FOR KH ONLY) Max. Recommended DC Power [W] Max. DC Voltage [V] Norminal DC Operating Voltage [V] Max. Input Current (Input A / Input B) [A] Max. Short Circuit Current (Input A / Input B) [A]	KA7	KA8	Li-lon 85-480 300VDC 50 50	KA10	KA10.5
Battery Type Battery Voltage Range [V] Recommended Battery Voltage [V] Max. Charge Current [A] Max. Discharge Current [A] Communication Interfaces Reverse Connect Protection INPUT PV (FOR KH ONLY) Max. Recommended DC Power [W] Max. DC Voltage [V] Norminal DC Operating Voltage [V] Max. Input Current (Input A / Input B) [A] Max. Short Circuit Current (Input A / Input B) [A]	10500		85-480 300VDC 50 50		
Recommended Battery Voltage [V] Max. Charge Current [A] Max. Discharge Current [A] Communication Interfaces Reverse Connect Protection INPUT PV (FOR KH ONLY) Max. Recommended DC Power [W] Max. DC Voltage [V] Norminal DC Operating Voltage [V] Max. Input Current (Input A / Input B) [A] Max. Short Circuit Current (Input A / Input B) [A]	10500		300VDC 50 50		
Max. Charge Current [A] Max. Discharge Current [A] Communication Interfaces Reverse Connect Protection INPUT PV (FOR KH ONLY) Max. Recommended DC Power [W] Max. DC Voltage [V] Norminal DC Operating Voltage [V] Max. Input Current (Input A / Input B) [A] Max. Short Circuit Current (Input A / Input B) [A]	10500		50 50		
Max. Discharge Current [A] Communication Interfaces Reverse Connect Protection INPUT PV (FOR KH ONLY) Max. Recommended DC Power [W] Max. DC Voltage [V] Norminal DC Operating Voltage [V] Max. Input Current (Input A / Input B) [A] Max. Short Circuit Current (Input A / Input B) [A]	10500		50		
Communication Interfaces Reverse Connect Protection INPUT PV (FOR KH ONLY) Max. Recommended DC Power [W] Max. DC Voltage [V] Norminal DC Operating Voltage [V] Max. Input Current (Input A / Input B) [A] Max. Short Circuit Current (Input A / Input B) [A]	10500				
INPUT PV (FOR KH ONLY) Max. Recommended DC Power [W] Max. DC Voltage [V] Norminal DC Operating Voltage [V] Max. Input Current (Input A / Input B) [A] Max. Short Circuit Current (Input A / Input B) [A]	10500		CAN / RS485		
Max. Recommended DC Power [W] Max. DC Voltage [V] Norminal DC Operating Voltage [V] Max. Input Current (Input A / Input B) [A] Max. Short Circuit Current (Input A / Input B) [A]	10500		YES		
Max. DC Voltage [V] Norminal DC Operating Voltage [V] Max. Input Current (Input A / Input B) [A] Max. Short Circuit Current (Input A / Input B) [A]	10500				
Norminal DC Operating Voltage [V] Max. Input Current (Input A / Input B) [A] Max. Short Circuit Current (Input A / Input B) [A]		12000	13500	15000	15000
Max. Input Current (Input A / Input B) [A] Max. Short Circuit Current (Input A / Input B) [A]			600 360		
Max. Short Circuit Current (Input A / Input B) [A]	16	5 / 16 / 16[1]	300	16 / 16 / 16 / 16 ^[1]	
		0 / 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]		2	75		
No. of MPP Trackers Strings Per MPP Tracker		3	1	4	
DC Disconnection Switch			Optional		
OUTPUT AC					
	7000	8000	9000	10000	10500
	7700	8800	9900	10500	10500
Rated Grid Voltage (AC Voltage Range) [V] Rated Grid Frequency [Hz]			220 / 230 / 240 (180 to 270) 50 / 60, ±5		
	30.4	34.8	39.1	43.5	45.7
	33.5	38.3	43.0	45.7	47.7
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
	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)					
	7000	8000	9000	10000	10500
EPS Rated Voltage [V], Frequency [Hz] Max. EPS Current [A]	21.0	20.4	220/230/240, 50 / 60 40.9	AE E	47.7
Max. EPS Current [A] EPS Peak Power [W]	31.8	36.4 0000, 60s	40.9	45.5 12000, 60s	47.7
Switch Time [s]		,000,000	<20ms	12000, 000	
Total Harmonic Distortion (THDv, Linear Load)			<2%		
Parallel Operation			Yes @max10PCS		
EFFICIENCY					
MPPT Efficiency Euro-efficiency			99.90% 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 Lo	oad)		97.00%		
PROTECTION					
PV Reverse Polarity Protection			YES		
Battert Reverse Protection			YES		
Anti-islanding Protection Output Short Protection			YES 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 AFCI Protection			Type II / Type II Optional		
POWER CONSUMPTION			Optional		
Standby Consumption [W] (Ldle)			<15		
STANDARD					
Safety			IEC62109-1 / IEC62109-2 / IEC 62477-1		
EMC			EN 61000-6-1 / EN 61000-6-2 / EN 61000-6-		
Cetification		G99 /AS4	4777.2 EN50549-1 CEI 0-21 NRS 097-2-1	and so on	
ENVIRONMENT LIMIT			IDES		
ngress Protection Protective Class			IP65 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*208mm		
Weight [kg]			29kg (KH) / 27.5kg (KA)		
			Natural		
Cooling Concept					
Topology			Non-isolated		
Cooling Concept Topology Communication LCD Display		Meter	Non-isolated (Optinal), WIFI, 4G (Optional), DRM, USB, CT Backlight 16*4 Character	, RS485	

 $^{^{\}ast}$ More technical characteristics are avaliable on demand and customized. $^{||}$ The maxium generating power of each pv string is limited to 3300 watts.