



DATASHEET

Single-Phase Hybrid/AC Inverter

HI-3.0-E / 3.7 / 4.6 / 5.0 / 6.0
ACI-3.0-E / 3.7 / 4.6 / 5.0 / 6.0

Fox ESS

HYBRID/AC INVERTER

Harness the power of the sun day and night with the ground-breaking range of Hybrid & AC Inverters from Fox ESS.

Full of advanced features and compatible with our very own range of high-voltage batteries, the hybrid range from Fox ESS. It is a new class of Inverter.



Fox ESS 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

Includes 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. There are six battery size options, and Max. seven batteries can be installed in series, providing up to 33.24kWh of storage capacity.

For more about the Fox ESS range, visit:

WWW.FOX-ESS.COM



TECHNICAL SPECIFICATIONS

Model	H1-3.0-E AC1-3.0-E	H1-3.7-E AC1-3.7-E	H1-4.6-E AC1-4.6-E	H1-5.0-E AC1-5.0-E	H1-6.0-E AC1-6.0-E
INPUT PV (ONLY FOR HYBRID)					
Max. Input Power [W]	3900	4680	5980	6500	7800
Max. Input Voltage [V]			600		
Start-up Input Voltage [V]			75		
Rated Input Voltage [V]			360		
MPPT Operating Voltage Range [V]			80 ~ 550		
Max. Input Current [A]			13.5/13.5		
Max. Short-circuit Current [A]			15/15		
No. of Independent MPPT Trackers	2	2	2	2	2
No. of Strings per MPPT Tracker	1	1	1	1	1
BATTERY CONNECTION					
Battery Type			Lithium Battery (LFP)		
Battery Voltage [V]			85 ~ 450		
Max. Charge/Discharge Current [A]			40		
Communication Interface			CAN (Communicate With Inverter), RS485 (Upgrade BMS)		
AC INPUT AND OUTPUT (GRID)					
Max. AC Input Power [VA]	7000	7680	9600	10000	12000
Max. AC Input Current (per phase) [A]	31.8	34.9	43.6	45.5	54.5
Rated Output Power [W]	3000	3680	4600	5000	6000
Max. Output Apparent Power [VA]	3300	4048	5060	5500	6600
Rated Output Current (per phase) [A]	13.0	16.0	20.0	21.7	26.1
Max. Output Current [A]	14.3	17.6	22.0	23.9	28.7
Rated Grid Voltage [V]			220/230/240		
Rated Grid Frequency [Hz]			50/60		
Power Factor			1 (Adjustable from 0.8 leading to 0.8 lagging)		
THDi [%]			<3 @rated power		
UPS OUTPUT (WITH BATTERY)					
Max. Output Apparent Power [VA]	5000	5000	6000	6000	6000
Peak Output Apparent Power (80s) [VA]	6000	6000	7200	7200	7200
Max. Current (per phase) [A]	21.7	21.7	26.1	26.1	26.1
Rated Output Voltage [V]			220/230/240		
Rated Output Frequency [Hz]			50/60		
Power Factor			1 (Adjustable from 0.8 leading to 0.8 lagging)		
THDv (Linear Load) [%]			<2 @rated power		
Switch time [ms]			<20		
EFFICIENCY					
Euro Efficiency [%]			97.00		
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					
Insulation Monitoring			YES		
Residual Current Monitoring			YES		
DC Reverse Polarity Protection			YES		
Anti-islanding Protection			YES		
AC Short-circuit Protection			YES		
AC Overcurrent/Overvoltage Protection			YES		
DC Switch			YES		
SPD			DC: Type II, /AC: Type III		
GENERAL DATA					
Dimensions (WxHxD) [mm]			430*410*178		
Weight [kg]			23		
Installation			Wall-Mounted		
Topology			Transformerless		
Cooling Method			Natural		
Noise Emission [dB]			35		
Max. Operating Altitude [m]			2000		
Operating Temperature Range [°C]			-25 ~ 60		
Humidity (No Condensation) [%]			0 ~ 100		
Protection Degree			IP65		
Standby consumption [W]			<10		
Monitoring Module			WiFi, LAN, 4G, GPRS (Optional)		
Communication			2*RS485, DRM, Ripple Control, USB		
Display			LCD, App, Website		
STANDARD COMPLIANCE (MORE AVAILABLE UPON REQUEST)					
Safety			EN 62109-1, EN 62109-2		
EMC			EN 61000-6-2, EN 61000-6-3		
Grid Regulation			EN50549-1, C10 / 11, VDE-AR-N 4105, G98, G99, CEI 0-21, NRS 37-2-1, AS / NZS 777.2		

* More technical characteristics are available on demand and customized.



DATASHEET



EP12

HIGH VOLTAGE STORAGE BATTERY



Smart Battery Warming

- Scalable to 46.08kWh
- 90% Depth of Discharge
- Floor or Wall Mounting
- Compact & Easy Installation
- IP65 Protection Level
- High Voltage and High Efficiency



BATTERY
WARMING



SAFETY
RELIABLE



EASY
INSTALLATION



HIGH
EFFICIENCY



EXPANDABLE
SYSTEM



90%
DOD



BUILT-IN
FIRE SUPPRESSION

The EP12 is a high-performance, scalable battery storage system, allows for maximum flexibility, making it suitable for a broad range of storage applications.

Additional batteries can be installed in parallel allowing for a maximum storage capacity of 46.08kWh.



For more information about the Fox ESS range, visit:
www.fox-ess.com



TECHNICAL SPECIFICATIONS

SYSTEM NAME	EP12
MODEL	EP12 Plus
ELECTRICAL CHARACTERISTICS	
Compatible PCS	All Series of H1, KH, H3, H3-Pro, US
Battery Type	LFP (LiFePO ₄)
Nominal Energy [kWh]	11.52
Nominal Voltage [V]	384
Operating Voltage [V]	348 ~ 438
Max.Charge/Discharge Current [A]*1	30
Recommend Charge Current [A]	15
Peak Discharge Current [A]	65 @60s
Peak Charge Current [A]	36 @5s
Battery Pack Round-Trip Efficiency [%]	≥95
Depth of Discharge [%]	90
Communication	CAN
Display	LED*5
Scalability	Max. 4 Units in Parallel
OPERATING CONDITIONS	
Installation Location	Outdoor/ Indoor
Operating Temperature [°C]	Charge: -25 ~ 55 Discharge: -25 ~ 55
Storage Temperature [°C]	-10 ~ 40
Cooling Method	Natural Convection
Humidity [%]	5 ~ 95 (No Condensation)
Altitude [m]	Max. 3,000
MECHANICAL CHARACTERISTICS	
Dimensions (W*H*D) [mm]	710*640*185
Weight [kg]	98
CERTIFICATES	
Safety	IEC62619
EMC	EN IEC 61000-6-1/2/3/4
Transportation	UN38.3
Ingress Protection	IP65

*1, The current is affected by temperature, cell voltage and SOC.