FOX ESS

DATASHEET

Single-Phase Hybrid/AC Inverter

H1-3.0-E / 3.7 / 4.6 / 5.0 / 6.0

AC1-3.0-E / 3.7 / 4.6 / 5.0 / 6.0



H1&AC1

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 effciency.

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 three 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 A:2000 B:2000	4680 A:2400 B:2400	5980 A:3000 B:3000	6500 A:3300 B:3300	7800 A:3900 B:3900
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 MPP Trackers	2				
No. of Strings per MPP Tracker	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				
EPS OUTPUT (WITH BATTERY)					
Max. Output Apparent Power [VA]	5000	5000	6000	6000	6000
Peak Output Apparent Power (60s) [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 (W*H*D) [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				
Ingress protection	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 097-2-1, AS / NZS 4777.2				

* More technical characteristics are avaliable on demand and customized.

DATASHEET

ECS SERIES

ECS2800-H2/H3/H4/H5/H6/H7

Fox ESS **ECS**
BATTERY STORAGE SYSTEM



HIGH VOLTAGE BATTERY FROM Fox ESS

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

Additional batteries can be installed in series, allowing for a maximum storage capacity of 19.35 kWh. Installation is easy, with a plug and play solution that can save valuable time for installers.



- 2.76kWh capacity
- Scalable to 19.35 kWh
- 90% Depth of Discharge
- Large temperature tolerance
- Easy installation
- CAN/RS485 communication
- High voltage

High Voltage | **Simple Installation** | **Height Efficiency** | **Expandable System** | **90% DoD**

Fox ESS

ECS SERIES

ECS2800-H2/H3/H4/H5/H6/H7

MODEL	ECS2800 -H2	ECS2800 -H3	ECS2800 -H4	ECS2800 -H5	ECS2800 -H6	ECS2800 -H7
ELECTRICAL CHARACTERISTICS						
Battery Type	LiFePO4 Prismatic Cell					
Battery Module	1*CM2800 1*CS2800	1*CM2800 2*CS2800	1*CM2800 3*CS2800	1*CM2800 4*CS2800	1*CM2800 5*CS2800	1*CM2800 6*CS2800
Nominal Capacity[Wh]	5530	8290	11060	13820	16590	19350
Nominal Voltage [V]	115.2	172.8	230.4	288	345.6	403.2
Operating Voltage[V]	104.4 ~ 132.4	156.6 ~ 198.7	208.8 ~ 264.9	261.0 ~ 331.2	313.2 ~ 397.4	365.4 ~ 463.6
Recommend Discharge Current [A]	24					
Max.Charge/Discharge Current [A]	48					
Peak Discharge Current [A]	65 @60sec					
Battery Pack Round-Trip Efficiency [%]	>95					
Depth of discharge [%]	90					
Cycle Life*1	≥6000					
Communication	CAN					
Display	CS: LED*1, CM: LED*6					
Scalability	Max. 7 Modules in Series					
OPERATING CONDITIONS						
Installation Location	Outdoor/ Indoor (Stand)					
Operating Temperature [°C]*2	Charge: 0 ~ 55 Discharge: -10 ~ 55					
Storage Temperature [°C]	-20 ~ 55					
Cooling method	Natural Convection					
Humidity [%]	5 ~ 95 (No Condensing)					
Altitude [m]	Max. 2,000					
MECHANICAL CHARACTERISTICS						
Dimensions (W*H*D) [mm]	570*350*380	570*470*380	570*590*380	570*710*380	570*830*380	570*950*380
Weight [kg]	65±1	95.5±1.5	126±2	157±2.5	187±3	217±3.5
CERTIFICATES						
Safety	IEC 62619					
EMC	IEC 61000-6-1/2/3/4					
Transportation	UN38.3					
Ingress Protection	IP65					

*1, 25°C, @90% DOD, 0.5C charging/discharging.

*2, Charge derating will occur between 0°C and +15°C.