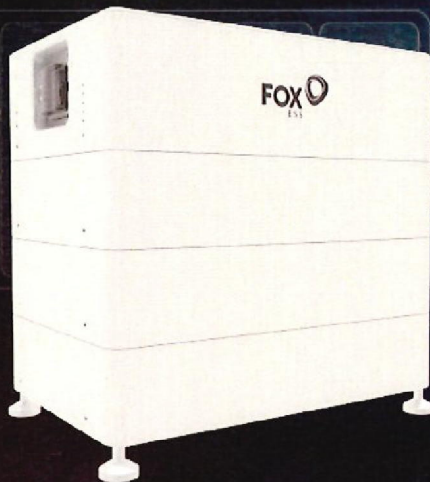


Fox ESS ECS BATTERY STORAGE SYSTEM



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 32.61 kWh. Installation is easy, with a plug and play solution that can save valuable time for installers.



- 4.66kWh capacity
- Scalable to 32.61 kWh
- 90% Depth of Discharge
- Large temperature tolerance
- Easy installation
- CAN communication
- High voltage



High
Voltage



Simple
Installation



High
Efficiency



Expandable
System



90%
DoD

Fox ESS

ECS SERIES

ECS4800-H2/H3/H4/H5/H6/H7

Model	ECS4800 -H2	ECS4800 -H3	ECS4800 -H4	ECS4800 -H5	ECS4800 -H6	ECS4800 -H7
ELECTRICAL CHARACTERISTICS						
Battery Type	LiFePO4 Prismatic Cell					
Battery Module	1*CM4800 1*CS4800	1*CM4800 2*CS4800	1*CM4800 3*CS4800	1*CM4800 4*CS4800	1*CM4800 5*CS4800	1*CM4800 6*CS4800
Nominal Capacity [Wh]	9320	13980	18640	23300	27960	32610
Nominal Voltage [V]	89.6	134.4	179.2	224	268.8	313.6
Operating Voltage [V]	81.2 ~ 103	121.8 ~ 154.5	162.4 ~ 206	203 ~ 257.6	243.6 ~ 309.1	284.2 ~ 360.6
Recommend Discharge Current [A]	30					
Max. Charge/Discharge Current [A]	50					
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]	-10 ~ 35					
Cooling method	Natural Convection					
Humidity [%]	5 ~ 95 (No Condensing)					
Altitude [m]	Max. 2,000					
MECHANICAL CHARACTERISTICS						
Dimensions (W*H*D) [mm]	570*386*380	570*524*380	570*662*380	570*800*380	570*938*380	570*1076*380
Weight [kg]	83.5	122.5	161.5	200.5	239.5	278.5
CERTIFICATES						
Safety	IEC 62619					
EMC	EN IEC 61000-6-1/2/3/4					
Transportation	UN38.3					
Ingress Protection	IP65					

*1, 25°C, @90% DOD, 0.3C charging/discharging.

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





DATASHEET

Three-Phase Hybrid Inverter

H3-Pro-15.0 / 20.0 / 24.9 / 25.0 / 29.9 / 30.0

H3 PRO

Three-Phase Hybrid 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.



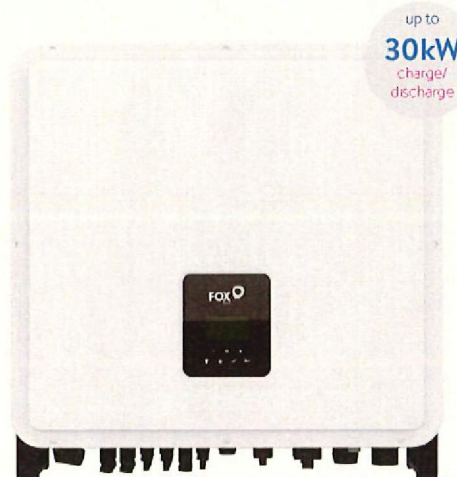
IP65 Rated

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



Remote Monitoring

Monitor your system remotely via smartphone app or web portal.



up to
30kW
charge/
discharge

REFINED – POWERFUL – FLEXIBLE

BATTERY EXPANSION EASY UPGRADE



Easily expand your system by adding extra batteries. There are three battery series you can choose from, which enables a storage capacity of up to 83.88 kWh. A max. of 10 storage inverters can be connected in parallel which allows you to enlarge the system scale based on different installation requirements.

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



TECHNICAL SPECIFICATIONS

HYBRID INVERTER MODEL:	H3-Pro-15.0	H3-Pro-20.0	H3-Pro-24.9	H3-Pro-25.0	H3-Pro-29.9	H3-Pro-30.0
PV INPUT(ONLY FOR HYBRID)						
Max.Recommended DC Power [W] ^[1]	7500/7500/7500	10000/10000/10000	12500/12500/12500	12500/12500/12500	15000/15000/15000	15000/15000/15000
Max.DC Voltage [V] ^[2]				1000		
Normalinal DC Operating Voltage [V]				750		
Max. Input Current [A]				32		
Max. Short Circuit Current [A]				40		
MPPT Voltage Range [V]				150 ~ 850		
MPPT Voltage Range [V] (full load)	170 ~ 850	230 ~ 850	280 ~ 850	280 ~ 850	340 ~ 850	340 ~ 850
Start-up Voltage [V]				160		
No. of MPP Trackers				3		
Strings Per MPP Tracker				2/2/2		
Max. Inverter Backfeed Current to the Array				0		
BATTERY						
Battery Type				Lithium Battery		
Battery Voltage [V]				150 ~ 800		
Full AC Load Battery Voltage [V]	160 ~ 790	220 ~ 790	270 ~ 790	270 ~ 790	330 ~ 790	330 ~ 790
Max. Charge/ Discharge Current [A]				50±50		
Number of Battery Input				2		
Communication Interface				CAN		
AC OUTPUT						
Normalinal AC Power [VA]	15000	20000	24900	25000	29900	30000
Max. Apparent AC Power [VA]	16500	22000	24900	27500	29900	33000
Rated Grid Voltage (AC Voltage Range) [VAC]			400 / 230 ; 380 / 220 , 3L / N / PE			
Rated Grid Frequency [Hz]			50 / 60 , ±5			
Max. AC Current [A] (Per Phase)	25.0	33.3	37.7	41.7	45.4	50.0
Power Factor			1(Adjustable from 0.8 Leading to 0.8 Lagging)			
Export Control			YES			
THDI [%]			<3 @Rated Power			
AC INPUT						
Max. AC Power [VA]	22500	30000	35000	35000	35000	35000
Rated Grid Voltage (AC Voltage Range) [V]			400 / 230 ; 380 / 220 , 3L / N / PE			
Rated Grid Frequency [Hz]			50 / 60 , ±5			
Max. AC Current [A] (Per Phase)	34.1	45.5	53.0	53.0	53.0	53.0
Power Factor			1(Adjustable from 0.8 Leading to 0.8 Lagging)			
EPS OUTPUT						
Max. Apparent AC Power [VA]	15000	20000	25000	25000	30000	30000
Peak Apparent AC Power [VA] (60s)	18000	24000	30000	30000	36000	36000
Rated Output Voltage [V]			400 / 230 ; 380 / 220 , 3L / N / PE			
Rated Grid Frequency [Hz]			50 / 60			
EPS Max. Current [A] (Per Phase)	22.7	30.3	37.9	37.9	45.5	45.5
Power Factor			1(Adjustable from 0.8 Leading to 0.8 Lagging)			
Parallel Operation			Yes @Max10PCS			
Switch Time [ms]			<20			
THDV [%]			<3 @Rated Power			
EFFICIENCY						
MPPT Efficiency [%]	99.90	99.90	99.90	99.90	99.90	99.90
Max. Efficiency [%]	97.80	97.80	97.80	97.80	97.80	97.80
Max. Battery to AC Efficiency [%]	97.60	97.60	97.60	97.60	97.60	97.60
Max. PV to Battery Efficiency [%]	98.10	98.10	98.10	98.10	98.10	98.10
Euro-Efficiency [%]	97.30	97.40	97.40	97.40	97.40	97.40
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 Voltage Category			III (AC Side) , II (DC Side)			
Reverse Connect Protection			YES			
Over-current Protection / Over-temperature Protection			YES			
AC/DC Surge Protection			Type II/Type II			
AFCI Protection			Optional			
DC SWITCH			Optional			
String Monitoring Function			Optional			
GENERAL DATA						
Dimension (W*H*D) [mm]			600*560*225			
Dimension of Packing (W*H*D) [mm]			720*680*370			
Net Weight [kg]			52.5			
Gross Weight [kg]			57.5			
Installation			Wall-mounted			
Operating Temperature Range [°C]			-25 ~ +60 (Derating at 45)			
Storage Temperature [°C]			-40 ~ +70			
Noise Emission(typical) [dB]	<45	<45	<60	<60	<60	<60
Storage/Operation Relative Humidity [%]			0 ~ 95 (Without Condensation)			
Altitude [m]			<4000			
Protective Class			I			
Ingress Protection			IP65 (for Outdoor Use)			
Standby Consumption [W]			200 for Hot Standby , 18 for Cold Standby			
Idle Mode			YES			
Cooling			Smart FAN Cooling			
Inverter Topology			Non-isolated			
Communication Interface			Meter, WIFI, 4G(optional), DRM, USB, BMS(CAN), RS485			
LCD Display			Backlight 16*4 Character			
Button			Capacitive Touch Sensor *4			
Buzzer			1, Inside (EPS&Earth Fault)			
STANDARD COMPLIANCE MORE AVAILABLE UPON REQUEST						
Safety			EN 62109-1, EN 62109-2			
EMC			IEC 61000-6-2, IEC 61000-6-3			

*More technical characteristics are available on demand and customized.

[1] Per MPP max. PV input power 15kW.

[2] For 1000V system, Maximum operating voltage is 950V. PV input voltage greater than 955V, PV overvoltage error will be reported.