FOX ESS

DATASHEET

Stackable AIO

SINGLE-PHASE **HYBRID/AC**



FLEXIBILITY

Modular design to meet various backup scenarios.

EASY INSTALLATION

Integrated configuration, plug and play set-up.

IP66 RATED

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

REMOTE MONITORING

Monitor your system remotely via smartphone app or web portal.



Advanced System Monitoring
with FoxCloud **V2.0**

Stackable AIO is the latest generation of an intergrated residential energy storage system, modular designed to meet various installation scenarios.

3.7kW ···» 11kW

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



AIO-AC1 (ac-coupled) variants available.

TECHNICAL SPECIFICATIONS

MODEL	PQ-3.7-H PQ-3.7-A	PQ-5.0-H PQ-5.0-A	PQ-6.0-H PQ-6.0-A	PQ-7.0-H PQ-7.0-A	PQ-9.0-H PQ-9.0-A	PQ-11.0-H PQ-11.0-A
INPUT PV						
Max. Solar STC Power [W]	7400	10000	12000	14000	18000	22000
Max. Input Power [W]	5550	7500	9000	10500	13500	16500
Nominal DC Voltage [V]	360					
Max. DC Voltage [V]	600					
System Startup Voltage [V]	75					
MPPT Voltage Range [V]	80 ~ 500					
MPPT Voltage Range [V] (Full Load)	116 ~ 500	156 ~ 500	188 ~ 500	219 ~ 500	211 ~ 500	258 ~ 500
Max. PV Input Current per MPPT [A]	32/16	32/16	32/16	32/16	32/16/16	32/16/16
Max. Input Short Circuit Current per MPPT [A]	40/20	40/20	40/20	40/20	40/20/20	40/20/20
No. of MPPT	2	2	2	2	3	3
Strings per MPPT	2/1	2/1	2/1	2/1	2/1/1	2/1/1
OUTPUT AC						
Nominal AC Power [W]	3680	5000	6000	7000	9000	11000
Max. AC Apparent Power [VA]	3680	5000	6000	7000	9000	11000
Nominal AC Output Voltage [V]	220/230/240					
AC Voltage Range [V]	180 ~ 270					
Nominal AC Output Current [A]	16.0	22.7	27.3	31.8	40.9	50.0
Max. AC Output Current [A]	16.0	22.7	27.3	31.8	40.9	50.0
Nominal AC Output Frequency [Hz]	50/60					
Operating AC Frequency Range [Hz]	45 ~ 65					
Output Power Factor	>0.99 (0.8 leading ~ 0.8 lagging)					
THDi [%]	<3					
INPUT AC						
Max. AC Input Power [W]	4440	6000	7200	8400	10800	13200
Max. AC Input Current [A]	20.2	27.3	32.7	38.2	49.1	60.0
Rated Grid Voltage (AC Voltage Range) [V]	220/230/240 (180 ~ 270)					
Nominal AC Input Frequency [Hz]	50/60					
EPS OUTPUT (WITH BATTERY)						
Rated Output Power [W]	3680	5000	6000	7000	9000	11000
Rated Output Power @Different Batteries [W]	3680@H2 Battery 3680@H3 Battery 3680@H4 Battery 3680@H5 Battery 3680@H6 Battery 3680@H7 Battery	5000@H2 Battery 5000@H3 Battery 5000@H4 Battery 5000@H5 Battery 5000@H6 Battery 5000@H7 Battery	5760@H2 Battery 6000@H3 Battery 6000@H4 Battery 6000@H5 Battery 6000@H6 Battery 6000@H7 Battery	5760@H2 Battery 7000@H3 Battery 7000@H4 Battery 7000@H5 Battery 7000@H6 Battery 7000@H7 Battery	5760@H2 Battery 8640@H3 Battery 9000@H4 Battery 9000@H5 Battery 9000@H6 Battery 9000@H7 Battery	5760@H2 Battery 8640@H3 Battery 11000@H4 Battery 11000@H5 Battery 11000@H6 Battery 11000@H7 Battery
Max. Apparent Output Power [VA]	3680	5500	6600	7700	9900	12100
Peak Output Power For 60 Sec. [W]	4995	6750	8100	9450	12150	14850
Peak Output Power For 10 Min. [W]	4440	6000	7200	8400	10800	13200
Nominal AC Output Voltage	220/230/240					
Max. Continuous AC Output Current [A]	16.0	25.0	30.0	35.0	45.0	55.0
Nominal AC Output Frequency [Hz]	50/60					
Load Start Capacity [A] LRA	50.1@H2 Battery 75.1@H3 Battery 100.2@H4 Battery 110@H5 Battery 110@H6 Battery 110@H7 Battery	50.1@H2 Battery 75.1@H3 Battery 100.2@H4 Battery 110@H5 Battery 110@H6 Battery 110@H7 Battery	50.1@H2 Battery 75.1@H3 Battery 100.2@H4 Battery 110@H5 Battery 110@H6 Battery 110@H7 Battery	50.1@H2 Battery 75.1@H3 Battery 100.2@H4 Battery 110@H5 Battery 110@H6 Battery 110@H7 Battery	50.1@H2 Battery 75.1@H3 Battery 100.2@H4 Battery 110@H5 Battery 110@H6 Battery 110@H7 Battery	50.1@H2 Battery 75.1@H3 Battery 100.2@H4 Battery 110@H5 Battery 110@H6 Battery 110@H7 Battery
BATTERY						
Battery Type	Li-ion					
Nominal Battery Voltage [V]	360					
DC Operating Voltage Range [V]	85 ~ 460					
Full Load DC Operating Voltage Range [V]	92 ~ 460	125 ~ 460	150 ~ 460	170 ~ 460	220 ~ 460	275 ~ 460
Max. Continuous Charge and Discharge Current [A]	50					
Max. Continuous Charge/Discharge Power [W]	5550/3680	7500/5500	9000/6600	10500/7700	13500/9900	16500/12100
Peak Discharge Current For 60 Sec. [A]	60					
CS Communication Interface	CAN 2.0					
EFFICIENCY						
Max. Efficiency [%]	97.4	97.8	97.8	97.8	97.8	97.8
Max. Efficiency (PV-BAT-AC) [%]	91.8	92.0	92.0	92.0	92.0	92.0
Round-Trip Efficiency [%]	90.7	90.9	90.9	90.9	90.9	90.9
Euro Efficiency (BAT) [%]	95.5	96.5	96.5	97.0	97.0	97.0
Euro Efficiency (PV) [%]	96.0	97.0	97.0	97.0	97.5	97.5
PROTECTION						
DC Reverse-Polarity Protection	YES					
DC Switch	YES					
DC Surge Protection	Type II					
Insulation Resistance Monitoring	YES					
AC Surge Protection	Type II					
AC Short-Circuit Protection	YES					
Ground Fault Monitoring	YES					
Grid Monitoring	YES					
Anti-islanding Protection	YES					
Residual-Current Monitoring Unit	YES					
AFCI Protection	YES					
GENERAL DATA						
Dimensions (W*H*D) [mm / inch]	570*512*380 / 22.4*20.2*15					
Weight [kg / lb]	49 / 108					
Enclosure Rating	IP66					
Operation Temperature Range [°C]	–25 ~ +60 (Derating Above 40)					
Relative Humidity [%]	0 ~ 100 (No Condensation)					
Typical Noise Emission [dB]	<35					
Max. Operation Altitude [ft / m]	9843 / 3000 (>6, 560 / 2000 Derating)					
Internal Consumption at Night [W]	<25					
Topology	Non-isolated					
Cooling Method	Natural convection					
Switchover Time [ms]	<20					
Safety and EMC	62109-1/2, 62477-1, IEC 61000-6-2/3, G99/G100					
HMI						
Display	LED, APP, Website					
Communication Interface	CAN2.0, RS485, Meter, CT, ISO alarm, SUNSPEC(modbus)					
Monitoring Module: WIFI / GPRS	Optional					