



# PowerQube

**AIO BATTERY STORAGE**



## IP66 RATED

High level of protection, suitable for outdoor installation.



## TEMPERATURE CONTROL

Integrated heating function for cold weather protection.



## FIRE SUPPRESSANT

Built-in automatic fire suppressant for maximum safety.



## 12 YEARS WARRANTY

Industry leading warranty of up to 12 years (selected countries only).

**HIGH VOLTAGE**

**EPS FUNCTION**

**EXPAND CAPACITY**

**90% DOD**



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



**PQ INVERTER**

**EQ BATTERY**

The Fox ESS PowerQube is a next-generation **all-in-one** residential energy storage solution with a fully-integrated inverter/charger and boasting a range of advanced features.

**3.7kWh ... 30kWh**  
2-7 battery modules



For more information about the Fox ESS range, visit [www.fox-ess.com](http://www.fox-ess.com)

AIO-AC1 (ac-coupled) variants available.

TECHNICAL SPECIFICATIONS

MODULE	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
<b>INPUT PV</b>						
Max. Solar STC Power [W]	7400	10000	12000	14000	18000	22000
Max. Input Power [W]	5500	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			32/16/16
Max. Input Short Circuit Current per MPPT [A]			40/20			40/20/20
No. of MPPT			2			3
Strings per MPPT			2/1			2/1/1
<b>OUTPUT AC</b>						
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		
<b>INPUT AC</b>						
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		
<b>EPS OUTPUT (WITH BATTERY)</b>						
Rated Output Power [W]	3680	5000	6000	7000	9000	11000
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		
Rated Output Power @ Different Batteries [W]	2 Batteries	3680	5000	5760	5760	5760
	3 Batteries	3680	5000	6000	7000	8640
	4 Batteries	3680	5000	6000	7000	9000
	5-7 Batteries	3680	5000	6000	7000	9000
Load Start Capacity [A] LRA				48 / 72 / 96 / 110		
<b>EFFICIENCY</b>						
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
<b>PROTECTION</b>						
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		
<b>GENERAL DATA</b>						
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		
<b>HMI</b>						
Display				LED, App, Website		
Communication Interface				CAN2.0, RS485, Meter, CT, ISO alarm, SUNSPEC(modbus)		
Monitoring Module: WIFI / GPRS				Optional		
<b>BATTERY</b>						
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	17000/12100
Peak Discharge Current For 60 Sec. [A]				60		
CS Communication Interface				CAN 2.0		
<b>Compatible Battery &amp; Battery Capacity</b>						
EQ 3300	EQ 4800	EQ 5000	EQ 2900 (only for UK)	EQ 4300 (only for UK)		
6.4kWh-22.4kWh (2-6PCS)	9.32kWh-32.61kWh (2-9PCS)	9.84kWh-34.44kWh (2-6PCS)	5.76kWh-20.16kWh (2-7PCS)	8.64kWh-30.24kWh (2-7PCS)		