



# Stackable AIO

SINGLE-PHASE **HYBRID/AC**



## FLEXIBLE APPLICATION

- Built-in 63A bypass for full house backup.
- 4ms seamless switch.
- Up to 200% PV input with 4 MPPTs, 20A per string.



## EASY INSTALLATION

- Integrated configuration, plug and play set-up.



## SAFE AND DURABLE

- Integrating active and passive safety.
- Intelligent AFCI function.
- IP66 and type II DC/AC surge protection.



## REMOTE MONITORING

- Monitor your system remotely via smartphone App or Web portal.
- Ready for AI and VPP Apps.



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



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

3.7kW ...>> 12kW



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

## TECHNICAL SPECIFICATIONS

MODEL	PQ1-3.7-P	PQ1-5.0-P	PQ1-6.0-P	PQ1-7.0-P	PQ1-8.0-P	PQ1-10.0-P	PQ1-12.0-P
<b>PV INPUT</b>							
Max. Array Power[W]	16000	16000	20000	20000	24000	24000	24000
Max. Input Power [W]	13700	15000	18000	19000	20000	22000	24000
Max. MPPT Input Power (Per) [W]				8000			
Max. Input Voltage [V]				600 [1]			
Min. Input Voltage [V]				75			
Start-Up Input Voltage [V]				80			
Nominal Voltage [V]				360			
MPPT Voltage Range [V]				80 ~ 550			
MPPT Voltage Range (Full Load) [V]	96 ~ 550	130 ~ 550	105 ~ 550	121 ~ 550	105 ~ 550	130 ~ 550	155 ~ 550
Max. PV Input Current [A]	20/20	20/20	20/20/20	20/20/20	20/20/20/20	20/20/20/20	20/20/20/20
Max. Isc PV Current [A]	25/25	25/25	25/25/25	25/25/25	25/25/25/25	25/25/25/25	25/25/25/25
No. of MPP Trackers	2	2	3	3	4	4	4
Strings per MPP Tracker	1+1	1+1	1+1+1	1+1+1	1+1+1+1	1+1+1+1	1+1+1+1
<b>BATTERY CONNECTION</b>							
Battery Type	Lithium-Ion battery (LFP)						
Battery Voltage [V]	80 ~ 500						
Min. Operating Battery Voltage [V]	80						
Min. Battery Voltage @ Full AC Load [V]	78	105	125	145	165	207	247
Max. Battery Charge Power [W]	12000						
Max. Battery Discharge Power [W]	3680	5000	6000	7000	8000	10000	12000
Max. Charge/Discharge Current [A]	50/50						
Depth of Discharge [%]	90						
Scalability	YES						
<b>AC OUTPUT</b>							
Rated Output Power [W]	3680	5000	6000	7000	8000	10000	12000
Rated Apparent Power [VA]	3680	5000	6000	7000	8000	10000 [2]	12000
Max. Apparent Power [VA]	3680	5500	6600	7700	8800	11000 [2]	13200
Rated Grid Voltage [V]	220/230/240, L/N/PE						
Rated Grid Frequency [Hz]	50/60, ±5						
Rated Output Current [A]	16.7	22.7	27.3	31.8	36.4	45.5	54.5
Max. Output Current [A]	16.7	25.0	30.0	35.0	40.0	50.0	60.0
Power Factor	1 (Adjustable from 0.8 leading to 0.8 lagging)						
THDI [%]	<3 @rated power						
<b>AC INPUT</b>							
Max. Apparent Power [VA]	7000	8800	11000	14500 [3]	14500 [3]	14500 [3]	14500 [3]
Rated Grid Voltage [V]	220/230/240, L/N/PE						
Rated Grid Frequency [Hz]	50/60, ±5						
Max. Input Current [A]	32.0	40.0	50.0	63.0 [3]	63.0 [3]	63.0 [3]	63.0 [3]
Power Factor	1 (Adjustable from 0.8 leading to 0.8 lagging)						
<b>EPS OUTPUT</b>							
Max. Apparent Power [VA]	3680	5000	6000	7000	8000	10000	12000
Load Start Capability [A]	122 @2s						
Rated Output Voltage [V]	220/230/240, L/N/PE						
Rated Grid Frequency [Hz]	50/60						
Max. Output Current for Backup Load (Bybass) [A]	32.0	40.0	50.0	63.0	63.0	63.0	63.0
Max. Output Current [A]	16.7	22.7	27.3	31.8	36.4	45.5	54.5
Power Factor	1 (Adjustable from 0.8 leading to 0.8 lagging)						
Parallel Operation	Yes @max3PCS						
Switch Time [ms]	<4						
THDV [%]	<3 @linear load						
<b>EFFICIENCY</b>							
Max. Static MPPT Efficiency [%]	99.90						
Max. Conversion Efficiency [%]	97.60	97.62	97.62	97.62	97.62	97.62	97.62
European Efficiency [%]	97.16	97.20	97.20	97.20	97.20	97.20	97.20
Max. Battery Charge Efficiency (PV to BAT) (@ Full Load) [%]	97.33						
Max. Battery Discharge Efficiency (BAT to AC) (@ Full Load) [%]	96.40						

## TECHNICAL SPECIFICATIONS

MODEL	PQ1-3.7-P	PQ1-5.0-P	PQ1-6.0-P	PQ1-7.0-P	PQ1-8.0-P	PQ1-10.0-P	PQ1-12.0-P
<b>PROTECTION</b>							
PV Reverse Polarity Protection				YES			
Anti-Islanding Protection				YES			
Output Short Protection				YES			
Leakage Current Protection				YES			
Insulation Resistor Detection				YES			
Oversvoltage Category				YES			
Overcurrent Protection/Overtemperature Protection				YES			
Earth Fault				YES			
DC/AC Surge Protection				Type II (PV)/Type II (AC)			
AFCI Protection				Optional			
Battery Warming Function				Optional			
DC Switch				YES			
<b>GENERAL DATA</b>							
Dimensions (W*H*D) [mm]				660*420*360 (Inverter)			
Net Weight [kg]				43.0 (Inverter)			
Gross Weight [kg]				55.0 (Inverter)			
Installation				Floor-mounted			
Operating Temperature Range [°C]				-25 ~ +60 (Derating at 45)			
Storage Temperature [°C]				-10 ~ +55 (-25 ~ +55 after warm up)			
Storage/Operation Relative Humidity [%]				0 ~ 95 (No condensation)			
Altitude [m]				<4000 @ Derating Exceeding 3000			
Protection Class				I			
Oversvoltage Category				III (AC), II (DC)			
Pollution Degree				PD3 (PD2 inside)			
Ingress Protection				IP66 (For Outdoor Use)			
Standby Consumption [W]				<15 (Only PV and Grid)			
Cooling	Natural	Natural	Natural	FAN cooling	FAN cooling	FAN cooling	FAN cooling
Noise Emission (Average) [dB]	<35 [4]	<35 [4]	<35 [4]	<50 [4]	<50 [4]	<50 [4]	<50 [4]
Inverter Topology				Non-Isolated			
Communication Interface		Ethernet, EMS(RS485), Meter, WiLAN(WiFi+LAN+Bluetooth), 4G(Optional), DRM, Ripple Control, USB, BMS(CAN), SG Ready					
Display				LED, LCD, App, Website			
Export Limit Control				YES			
Button				Capacitive Touch Sensor			
<b>STANDARD</b>							
Safety		EN/IEC 62109-1, EN/IEC 62109-2, EN/IEC62477-1, EN/IEC 62040(AU)					
EMC		EN IEC 61000-6-1:2019, EN IEC 61000-6-3:2021, EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019, IEC 62920:2017					
RED		EN 50665:2017, ENIEC 62311:2020, EN 301 489-1 V2.2.3 (2019-11), EN 301 489-17 V3.2.4 (2020-09), EN 300 328 V2.2.2(2019-07), EN 55032:2015+A11:2020+A1:2020, EN 55035:2017+A11:2020					
Grid Regulation				AS/NZS 4777.2:2020			
Battery Regulation				IEC62619:2022			

[1] Voltages exceed 600V may damage the inverter.

[2] According to Australian standards, the maximum apparent power is 9999VA.

[3] Configuration can be set on the platform according to requirements.

[4] Excludes wear parts such as LCD and fans.

## TECHNICAL SPECIFICATIONS

MODEL	CQ7-80 -L2 (w)	CQ7-80 -L3 (w)	CQ7-80 -L4 (w)	CQ7-80 -L5 (w)	CQ7-80 -L6 (w)	CQ7-80 -L7 (w)
<b>ELECTRICAL CHARACTERISTICS</b>						
Battery Type	LFP (LiFePO <sub>4</sub> )					
Battery Module [CQ7-S-80 (w)]	2	3	4	5	6	7
Nominal Capacity [kWh]	14.04	21.06	28.08	35.10	42.12	49.14
Nominal Voltage [V]	115.2	172.8	230.4	288.0	345.6	403.2
Operating Voltage [V]	104.4 ~ 459.9					
Recommend Discharge Current [A]	50					
Max. Charge/Discharge Current [A] <sup>*1</sup>	80					
Peak Discharge Current [A]	110 @60sec					
Battery Pack Round-Trip Efficiency [%]	>95					
Depth of Discharge [%]	90					
Communication	CAN					
Display	LED*1					
Scalability	Max. 7 Modules in Series					
<b>OPERATING CONDITIONS</b>						
Installation Location	Outdoor/ Indoor					
Operating Temperature [°C]	Charge: 0 ~ 55, Discharge: -10 ~ 55					
Operating Temperature [°C] (warm up function on, optional)	Charge: -25 ~ 55, Discharge: -25 ~ 55					
Storage Temperature [°C]	-10 ~ 50					
Cooling Method	Natural Convection					
Humidity [%]	5 ~ 95 (No Condensation)					
Altitude [m]	Max. 3,000					
<b>PROTECTION</b>						
Fire Protection Function	YES					
<b>MECHANICAL CHARACTERISTICS</b>						
Dimensions (W*D*H) [mm]	660*360*310	660*360*465	660*360*620	660*360*775	660*360*930	660*360*1085
Weight [kg]	97.6	146.4	195.2	244	292.8	341.6
<b>CERTIFICATES</b>						
Safety	IEC 62619					
EMC	IEC 61000-6-1/2/3/4					
Transportation	UN38.3					
Ingress Protection	IP65					

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