



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.
- Designed for single-person installation.



SAFE AND DURABLE

- Integrating active and passive safety.
- Intelligent AFCI function.
- IP65 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

TECHNICAL SPECIFICATIONS

MODEL	PQ1-3.7	PQ1-5.0	PQ1-6.0	PQ1-7.0	PQ1-8.0	PQ1-10.0	PQ1-12.0
PV INPUT							
Max. Array Power[W]	16000	16000	20000	20000	20000	20000	20000
Max. Input Power [W]	13700	15000	18000	19000	20000	20000	20000
Max. MPPT Input Power [W]	8000/8000	8000/8000	8000/8000/8000	8000/8000/8000	8000/8000/8000/8000	8000/8000/8000/8000	8000/8000/8000/8000
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
BATTERY CONNECTION							
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			
AC OUTPUT							
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			
AC INPUT							
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 [3]	63 [3]	63 [3]	63 [3]
Power Factor				1 (Adjustable from 0.8 leading to 0.8 lagging)			
EPS OUTPUT							
Max. Apparent Power [VA]	3680	5000	6000	8000	8000	10000	12000
Load Start Capability [A]				122 @10s			
Rated Output Voltage [V]				220/230/240, L/N/PE			
Rated Grid Frequency [Hz]				50/60			
Max. Output Current for Backup Load [A] (Bybass)	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			
EFFICIENCY							
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			
PROTECTION							
PV Reverse Polarity Protection				YES			
Anti-Islanding Protection				YES			
Output Short Protection				YES			
Leakage Current Protection				YES			
Insulation Resistor Detection				YES			
Overvoltage Category				YES			
Overcurrent Protection/Overtemperature Protection				YES			
Earth Fault				YES			
DC/AC Surge Protection				Type II (PV)/Type II (AC)			
AFCI Protection				Optional			
Battery Warning Function				Optional			
DC Switch				YES			
GENERAL DATA							
Dimensions (W*H*D) [mm]				570*420*380			
Dimensions of Packing (W*H*D) [mm] (Inverter)				654*538*464			
Net Weight [kg] (Inverter)				35.0			
Gross Weight [kg] (Inverter)				40.5			
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 2000			
Protection Class				I			
Overvoltage Category				III (AC), II (DC)			
Pollution Degree				PD3 (PD2 inside)			
Ingress Protection				IP65 (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, Dry Contact*2					
Display				LED, LCD, APP, Website			
Export Limit Control				YES			
Button				Capacitive Touch Sensor*4			
STANDARD							
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 9999 VA.
[3] Configuration can be set on the platform according to requirements.
[4] Excludes wear parts such as LCD and fans.