DATASHEET

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 intergrated 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 Warming 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.