



Stackable AIO

THREE-PHASE **HYBRID/AC**



FLEXIBLE APPLICATION

- 3 MPPTs, 20A per string.
- PV min. voltage of 120V and min. battery voltage of 80V.



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.

5kW ...>> 15kW



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

TECHNICAL SPECIFICATIONS

MODEL	PQ3-5.0	PQ3-6.0	PQ3-8.0	PQ3-10.0	PQ3-12.0	PQ3-15.0
INPUT PV						
Max. Array Power[W]	11000	14000	18000	20000	24000	30000
Max. Input Power [W]	11000	13200	17600	18000	22500	22500
Max. Input Voltage [V]				1000 [1]		
Nominal Operating Voltage [V]				620		
Max. MPPT Input Current [A]				20/20/20		
Max. MPPT Short-Circuit Current [A]				25/25/25		
Max. MPPT Input Power [W]				10000/10000/10000		
Min. Operating Input Voltage [V]				90 [2]		
MPPT Voltage Range [V]				120 ~ 950		
Start-Up Input Voltage [V]				140		
MPPT Voltage Range (Full Load) [V]	120 ~ 850	120 ~ 850	140 ~ 850	175 ~ 850	210 ~ 850	263 ~ 850
No. of MPP Trackers				3		
Strings per MPP Tracker				1+1+1		
Max. Inverter Backfeed Current to the Array				0		
BATTERY CONNECTION						
Battery Type				Lithium-Ion battery (LFP)		
Battery Voltage [V]				80 ~ 500		
Min. Operating Battery Voltage [V]				85		
Min. Battery Voltage @ Full AC Load [V]	108	125	160	210	250	310
Max. Battery Charge Power [W]	6000	7200	9600	12000	14400	15000
Max. Battery Discharge Power [W]	5000	6000	8000	10000	12000	15000
Max. Charge/Discharge Current [A]				50		
Communication Interface				CAN		
AC OUTPUT						
Nominal Output Power [W]	5000	6000	8000	10000	12000	15000
Max. Apparent Output Power [VA]	5500	6600	8800	11000	13200	16500
Rated Grid Voltage (AC Voltage Range) [V]				400V/230; 380/220, 3L/N/PE		
Rated Grid Frequency [Hz]				50/60, ±5		
Rated Output Current (Per Phase) [A]	7.6	9.1	12.1	15.2	18.2	22.7
Max. Output Current (Per Phase) [A]	8.3	10.0	13.3	16.7	20.0	25.0
Power Factor			1 (Adjustable from 0.8 leading to 0.8 lagging)			
THDI [%]			<3 @rated power			
AC INPUT						
Max. Input Power [VA]				17250		
Rated Grid Voltage [V]				400V/230; 380/220, 3L/N/PE		
Rated Grid Frequency [Hz]				50/60, ±5		
Max. Input Current [A] (Per Phase)				25		
EPS OUTPUT						
Max. Apparent Output Power [VA]	5000	6000	8000	10000	12000	15000
Peak Apparent Output Power [VA] (60s)	6000	7200	9600	12000	14400	15000
Rated Output Voltage [V]				400V/230; 3L/N/PE		
Rated Grid Frequency [Hz]				50/60		
Max. Continuous Current [A] (Per Phase)	7.2	8.7	11.6	14.5	17.4	21.7
Max. Unbalanced Load Power [kW] (Per Phase)	1.6	2.0	2.6	3.3	4.0	5.0
Step-Down Start				YES		
EPS Overload Automatic Recovery Time	try 3 times(15s) everytime will alarm a fault , after 3 failures, stop the recovery logic, clients need to clear the fault manually.					
Power Factor			1 (Adjustable from 0.8 leading to 0.8 lagging)			
Parallel Operation				Yes @max10PCS		
Switch Time (Single Device) [ms]				<10		
THDV [%]				<3 @rated power		
EFFICIENCY						
MPPT Efficiency [%]				99.90		
Max. Efficiency [%]	97.80	97.80	97.90	97.90	97.90	97.90
European Efficiency [%]	97.00	97.00	97.10	97.30	97.50	97.50
Max. Battery Charge Efficiency (PV to BAT) (@ Full Load) [%]	97.00	97.10	97.20	97.40	97.50	97.60
Max. Battery Discharge Efficiency (BAT to AC) (@ Full Load) [%]	97.00	97.10	97.20	97.20	97.20	97.20
PROTECTION						
PV Reverse Polarity Protection				YES		
Battery Reverse Protection				YES		
Anti-Islanding Protection				YES		
Output Short Protection				YES		
Leakage Current Protection				YES		
Insulation Resistor Detection				YES		
Overvoltage Category				III (AC Side), II (DC Side)		
Reverse Connect Protection				YES		
Overcurrent Protection/Overtemperature Protection				YES		
DC/AC Surge Protection				Type II (PV)/Type II (AC)		
AFCI Protection				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)				40.5		
Gross Weight [kg] (Inverter)				45.0		
Installation				Floor-mounted		
Operating Temperature Range [°C]				-25 ~ +60 (Derating at 45)		
Storage Temperature [°C]				-40 ~ +70		
Storage/Operation Relative Humidity [%]				0 ~ 100 (No condensation)		
Altitude [m]				<4000 @ Derating Exceeding 2000		
Protection Class				I		
Ingress Protection				IP65 (For Outdoor Use)		
Standby Consumption [W]				200W for Work, 15W for Switch Off		
Idle Mode				YES		
Cooling	Natural	Natural	Natural	Natural	FAN Cooling	FAN Cooling
Noise Level [dB]	<40	<40	<40	<40	<55	<55
Inverter Topology				Non-Isolated		
Monitoring Module (Integrated)				WIFI, LAN, 4G		
Communication Interface	Meter, WIFI/4G (Optional), Bluetooth, DRM, Ethernet, USB, BMS (CAN), RS485, Ripple Control, SG Ready, Dry Contact*2					
Display				LED, LCD, APP, Website		
Button				Capacitive Touch Sensor		
Buzzer				1, Inside (EPS & Earth Fault)		
STANDARD						
Safety				EN/IEC62109-1, EN/IEC62109-2		
EMC				IEC 61000-6-1, IEC 61000-6-2, IEC 61000-6-3, IEC61000-4-2/3/4/5/6/8		
Certification				AS4777.2-2020, VDE-AR-N 4105, VDE0126-1-1, G98, EN50549-1, CEI 0-21, IEC62116, IEC61727, IEC61683		