



# 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.
- 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                                                           | PQI-3.7                                                                                                                                                                             | PQI-5.0   | PQI-6.0        | PQI-7.0        | PQI-8.0             | PQI-10.0            | PQI-12.0            |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------|----------------|---------------------|---------------------|---------------------|
| PV INPUT                                                        |                                                                                                                                                                                     |           |                |                |                     |                     |                     |
| 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 [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           | 63.0 [3]       | 63.0 [3]            | 63.0 [3]            | 63.0 [3]            |
| Power Factor                                                    | 1 (Adjustable from 0.8 leading to 0.8 lagging)                                                                                                                                      |           |                |                |                     |                     |                     |
| EPS OUTPUT                                                      |                                                                                                                                                                                     |           |                |                |                     |                     |                     |
| 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 [A] (Bypass)                | 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                                              | 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, WLAN(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                                                                                                                                                             |           |                |                |                     |                     |                     |
| 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+A12:2020, 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.