User Manual







Avocado 22 Pro

Avocado 22 Pro-M / Avocado 22 Pro-AC / Avocado 22 Pro-E

In order to prevent improper operation before use, please carefully read this manual.

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1. Introduction

The document describes the installation, commissioning, maintenance and troubleshooting of the following micro storage system listed below.

Avocado 22 Pro = Avocado 22 Pro-M or Avocado 22 Pro-AC + Avocado 22 Pro-E

Please read the document carefully before you use the product to ensure that you completely understand the product and can correctly use it. After reading, please keep the document properly for future reference.

2. Symbols





Danger of high voltages.

Danger to life due to high voltages in the inverter!

3. Safety

Installers should be familiar with this manual before performing any maintenance or installation on the system.

- Recommend to check the new batteries mounted on-site comply to the warranty scope.
- Do not open the product to repair or disassemble.
- Do not install with other batteries or cells.
- · In case of fire, use only dry powder fire extinguisher. Liquid extinguishers should not be used.
- · Do not use product in high static environment where the protection device might be damaged.
- · Recommend to store the product out of reach of children and animals.
- Do not expose the product to open flame.
- · Store in a cool and dry place with ample ventilation.
- · Do not store the product near water sources.
- Avoid the presence of flammable debris around the battery, such as cotton, fabric, haystacks, etc., which may be ignited by sparks and then lead the fire source to the battery, thus causing the battery to burn.
- Avoid the presence of hot or flammable objects around the battery, such as hydraulic bottles (natural gas, oxygen, etc.), heat pumps and so on.
- · Please avoid direct sunlight, rain exposure, snow laying up during installation and operation.

4. Product Information

- 1. Avocado 22 Pro-E is the battery module, and Avocado 22 Pro-M includes inverter, MPPTs and batter y module; Avocado 22 Pro-AC includes inverter, battery module;
- 2. Avocado 22 Pro-M or Avocado 22 Pro-AC contains the controller of the entire system, so each system must have one Avocado 22 Pro-M or Avocado 22 Pro-AC;

4.1 Avocado 22 Pro-M Specifications

| PV INPUT | Specifications for Avocado 22 Pro-M | | | |
|--|---------------------------------------|----------------------------|--|--|
| Max. input voltage (V d.c.) 60 MPPT voltage range (V d.c.) 10~60 Nominal voltage (V d.c.) 38 Max. input current (A d.c.) 20/20/20/20 Isc PV (A d.c.) 25/25/25/25 BATTERY LFP (LiFePO ₄) Battery type LFP (LiFePO ₄) Expandable battery quantity 4 Battery energy (kWh) 2.11 Nominal capacity (Ah) 60 Battery rated voltage (V d.c.) 35.2 Voltage range (V d.c.) 31.9~40.1 Max.charge/discharge current (A d.c.) 60/60 Warm up function Optional AC INPUT Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT 800 Rated apparent power (VA) 800 Max. apparent power (VA) 800 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 | PV INPUT | | | |
| MPPT voltage range (V d.c.) 10~60 Nominal voltage (V d.c.) 38 Max. input current (A d.c.) 20/20/20/20 Isc PV (A d.c.) 25/25/25/25 BATTERY LFP (LiFePO4) Battery type LFP (LiFePO4) Expandable battery quantity 4 Battery energy (kWh) 2.11 Nominal capacity (Ah) 60 Battery rated voltage (V d.c.) 35.2 Voltage range (V d.c.) 31.9~40.1 Max.charge/discharge current (A d.c.) 60/60 Warm up function Optional AC INPUT Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT 800 Rated power (W) 800 Max. apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging | Max. input power (W) | 2600 | | |
| Nominal voltage (V d.c.) 38 Max. input current (A d.c.) 20/20/20/20 Isc PV (A d.c.) 25/25/25/25 BATTERY Expandable battery upantity Expandable battery quantity 4 Battery energy (kWh) 2.11 Nominal capacity (Ah) 60 Battery rated voltage (V d.c.) 35.2 Voltage range (V d.c.) 31.9~40.1 Max.charge/discharge current (A d.c.) 60/60 Warm up function Optional AC INPUT Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT 800 Rated opparent power (VA) 800 Max. apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | Max. input voltage (V d.c.) | 60 | | |
| Max. input current (A d.c.) 20/20/20/20 Isc PV (A d.c.) 25/25/25/25 BATTERY Expandable battery type LFP (LiFePO₄) Expandable battery quantity 4 Battery energy (kWh) 2.11 Nominal capacity (Ah) 60 Battery rated voltage (V d.c.) 35.2 Voltage range (V d.c.) 31.9~40.1 Max.charge/discharge current (A d.c.) 60/60 Warm up function Optional AC INPUT Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT 800 Rated power (W) 800 Rated apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | MPPT voltage range (V d.c.) | 10~60 | | |
| Isc PV (A d.c.) | Nominal voltage (V d.c.) | 38 | | |
| BATTERY Battery type | Max. input current (A d.c.) | 20/20/20/20 | | |
| Battery type | Isc PV (A d.c.) | 25/25/25/25 | | |
| Expandable battery quantity Battery energy (kWh) Nominal capacity (Ah) Battery rated voltage (V d.c.) Voltage range (V d.c.) Max.charge/discharge current (A d.c.) May up function AC INPUT Max. apparent power (VA) Nominal voltage (V a.c.) Max. input current (A a.c.) AC OUTPUT Rated power (W) Rated apparent power (VA) Nominal voltage (V a.c.) Rated apparent power (VA) Nominal voltage (V a.c.) So/60 Rated apparent power (VA) Nominal requency (Hz) So/60 Rated apparent power (VA) Nominal requency (VA) Rated apparent power (VA) Nominal requency (Hz) So/60 Rated output current (A a.c.) Nominal requency (Hz) So/60 Rated output current (A a.c.) | BATTERY | | | |
| Battery energy (kWh) 2.11 Nominal capacity (Ah) 60 Battery rated voltage (V d.c.) 35.2 Voltage range (V d.c.) 31.9~40.1 Max.charge/discharge current (A d.c.) 60/60 Warm up function Optional AC INPUT Max. apparent power (VA) Mominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT 800 Rated power (W) 800 Max. apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | Battery type | LFP (LiFePO ₄) | | |
| Nominal capacity (Ah) Battery rated voltage (V d.c.) Voltage range (V d.c.) Max.charge/discharge current (A d.c.) Warm up function AC INPUT Max. apparent power (VA) Nominal voltage (V a.c.) AC OUTPUT Rated power (W) Rated apparent power (VA) Max. apparent power (VA) Rated apparent power (VA) Nominal voltage (V a.c.) AC OUTPUT Rated power (W) Rated apparent power (VA) Nominal voltage (V a.c.) Rated apparent power (VA) Max. apparent power (VA) Nominal voltage (V a.c.) So/60 Rated apparent power (VA) Nominal voltage (V a.c.) Nominal requency (Hz) So/60 Rated output current (A a.c.) Rated apparent power (VA) | Expandable battery quantity | 4 | | |
| Battery rated voltage (V d.c.) Voltage range (V d.c.) Max.charge/discharge current (A d.c.) May be formulated as a second control of the second control | Battery energy (kWh) | 2.11 | | |
| Voltage range (V d.c.) Max.charge/discharge current (A d.c.) May be function AC INPUT Max. apparent power (VA) Nominal voltage (V a.c.) Max. input current (A a.c.) AC OUTPUT Rated power (W) Rated apparent power (VA) Nominal voltage (V a.c.) Rated apparent power (VA) Max. apparent power (VA) Rated apparent power (VA) Max. apparent power (VA) Rated apparent power (VA) Nominal voltage (V a.c.) Nominal requency (Hz) Rated output current (A a.c.) | Nominal capacity (Ah) | 60 | | |
| Max.charge/discharge current (A d.c.) Warm up function AC INPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Max. input current (A a.c.) AC OUTPUT Rated power (W) Rated apparent power (VA) Nominal voltage (V a.c.) 220/230/240 800 Max. input current (A a.c.) AC OUTPUT Rated power (W) 800 Rated apparent power (VA) Mominal voltage (V a.c.) Nominal requency (Hz) Rated output current (A a.c.) Rated output current (A a.c.) Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | Battery rated voltage (V d.c.) | 35.2 | | |
| Warm up function AC INPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Max. input current (A a.c.) AC OUTPUT Rated power (W) Rated apparent power (VA) Nominal voltage (V a.c.) Rated apparent power (VA) Nominal voltage (V a.c.) Nominal requency (Hz) Solo Rated output current (A a.c.) Power factor D.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | Voltage range (V d.c.) | 31.9~40.1 | | |
| AC INPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Max. input current (A a.c.) AC OUTPUT Rated power (W) Rated apparent power (VA) Nominal voltage (V a.c.) Nominal voltage (V a.c.) Nominal requency (Hz) Solo 800 Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Rated output current (A a.c.) Power factor EPS OUTPUT Max. apparent power (VA) 1200 | Max.charge/discharge current (A d.c.) | 60/60 | | |
| AC INPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Max. input current (A a.c.) AC OUTPUT Rated power (W) Rated apparent power (VA) Nominal voltage (V a.c.) Nominal voltage (V a.c.) Nominal requency (Hz) Solo 800 Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Rated output current (A a.c.) Power factor EPS OUTPUT Max. apparent power (VA) 1200 | Warm up function | Optional | | |
| Nominal voltage (V a.c.) 220/230/240 | AC INPUT | | | |
| Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT 800 Rated power (W) 800 Max. apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | Max. apparent power (VA) | 1200 | | |
| Max. input current (A a.c.) AC OUTPUT Rated power (W) Rated apparent power (VA) Max. apparent power (VA) Nominal voltage (V a.c.) Rated output current (A a.c.) Rated output current (A a.c.) Power factor EPS OUTPUT Max. apparent power (VA) 5.4 800 800 800 220/230/240 50/60 8160 | Nominal voltage (V a.c.) | 220/230/240 | | |
| AC OUTPUT Rated power (W) Rated apparent power (VA) Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Rated output current (A a.c.) Power factor EPS OUTPUT Max. apparent power (VA) 800 220/230/240 50/60 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | Nominal frequency (Hz) | 50/60 | | |
| Rated power (W) 800 Rated apparent power (VA) 800 Max. apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | Max. input current (A a.c.) | 5.4 | | |
| Rated apparent power (VA) 800 Max. apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | AC OUTPUT | | | |
| Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Rated output current (A a.c.) Power factor EPS OUTPUT Max. apparent power (VA) 800 220/230/240 50/60 3.6/3.5/3.3 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | Rated power (W) | 800 | | |
| Nominal voltage (V a.c.) Nominal frequency (Hz) Rated output current (A a.c.) Power factor EPS OUTPUT Max. apparent power (VA) 220/230/240 3.6/3.5/3.3 20/230/240 3.6/3.5/3.3 3.6/3.5/3.3 1.200 | Rated apparent power (VA) | 800 | | |
| Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | Max. apparent power (VA) | 800 | | |
| Rated output current (A a.c.) Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | Nominal voltage (V a.c.) | 220/230/240 | | |
| Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 | Nominal frequency (Hz) | 50/60 | | |
| EPS OUTPUT Max. apparent power (VA) 1200 | Rated output current (A a.c.) | 3.6/3.5/3.3 | | |
| Max. apparent power (VA) 1200 | Power factor | 0.8 leading to 0.8 lagging | | |
| | EPS OUTPUT | | | |
| Nominal voltage (V a.c.) 220/230/240 | Max. apparent power (VA) | 1200 | | |
| 1701111101 701000 (V 0.0.) | Nominal voltage (V a.c.) | 220/230/240 | | |
| Nominal frequency (Hz) 50/60 | | 50/60 | | |
| Max. output current (A a.c.) 5.4 | Max. output current (A a.c.) | 5.4 | | |
| Max. bypass output current (A a.c.) 10 | Max. bypass output current (A a.c.) | 10 | | |
| Max. bypass output power (W) 2200 | | 2200 | | |
| Power factor 0.8 leading to 0.8 lagging | | | | |
| GENERAL DATA | GENERAL DATA | | | |
| Topology Isolated | | Isolated | | |
| Ingress protection IP65 | | | | |
| Protective class Class I | | | | |
| Over voltage category III (AC side), II (DC side) | | | | |

| Operating temperature range (°C) | -20~55 |
|----------------------------------|-------------|
| Warm up function | Optional |
| Dimensions (W×D×H) (mm) | 420*285*255 |
| Weight (kg) | 26.5±5% |

4.2 Avocado 22 Pro-AC Specifications

| BATTERY Battery type | Specifications for Avocado 22 Pro-AC | | |
|--|---------------------------------------|-----------------------------|--|
| Expandable battery quantity 4 Battery energy (kWh) 2.11 Nominal capacity (Ah) 60 Battery rated voltage (V d.c.) 35.2 Voltage range (V d.c.) 31.9~40.1 Max.charge/discharge current (A d.c.) 60/60 Warm up function Optional AC INPUT Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT Rated power (W) 800 Rated apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 800 Rated apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated apparent power (VA) 800 Rominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 Nominal frequency (Hz) 50/60 Nominal voltage (V a.c.) 220/230/240 Nominal voltage (V a.c.) 5.4 Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal voltage (V a.c.) 5.4 Max. bypass output current (A a.c.) 5.4 Max. bypass output current (A a.c.) 10 Max. bypass output current (A a.c.) 0.8 leading to 0.8 lagging GENERAL DATA | BATTERY | | |
| Battery energy (kWh) 2.11 Nominal capacity (Ah) 60 Battery rated voltage (V d.c.) 35.2 Voltage range (V d.c.) 31.9~40.1 Max.charge/discharge current (A d.c.) 60/60 Warm up function Optional AC INPUT Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT Rated power (W) 800 Rated apparent power (VA) 800 Max. apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal voltage (V a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 3.6/3.5/3.3 Power factor 5.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal requency (Hz) 50/60 Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal voltage (V a.c.) 3.6/3.5/3.3 Power factor 5.4 Max. bypass output current (A a.c.) 5.4 Max. bypass output current (A a.c.) 10 Max. bypass output power (W) 2200 Power factor 0.8 leading to 0.8 lagging | Battery type | LFP (LiFePO ₄) | |
| Nominal capacity (Ah) 60 | Expandable battery quantity | 4 | |
| Battery rated voltage (V d.c.) 35.2 Voltage range (V d.c.) 31.9~40.1 Max.charge/discharge current (A d.c.) 60/60 Warm up function Optional AC INPUT Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT Rated power (W) 800 Max. apparent power (VA) 800 Max. apparent power (VA) 800 Max. apparent power (VA) 800 Rated apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal voltage (V a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal voltage (V a.c.) 50/60 Ax. apparent power (VA) 1200 Nominal frequency (Hz) 50/60 Max. apparent power (VA) 1200 Nominal frequency (Hz) 50/60 Max. output current (A a.c.) 5.4 Max. output current (A a.c.) 5.4 Max. bypass output current (A a.c.) 10 Max. bypass output power (W) 2200 Power factor 0.8 leading to 0.8 lagging | Battery energy (kWh) | 2.11 | |
| Voltage range (V d.c.) 31.9~40.1 Max.charge/discharge current (A d.c.) 60/60 Warm up function Optional AC INPUT 1200 Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT 800 Rated power (W) 800 Max. apparent power (VA) 800 Max. apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 Nominal requency (Hz) 50/60 Max. apparent power (VA) 1200 Nominal requency (Hz) 50/60 Max. output current (A a.c.) 5.4 Max. bypass output current (A a.c.) 5.4 Max. bypass output power (W) 2200 Power factor 0.8 leading to 0.8 lagging </td <td>Nominal capacity (Ah)</td> <td>60</td> | Nominal capacity (Ah) | 60 | |
| Max.charge/discharge current (A d.c.) 60/60 Warm up function Optional AC INPUT 1200 Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT 800 Rated power (W) 800 Max. apparent power (VA) 800 Max. apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT 400 Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. output current (A a.c.) 5.4 Max. bypass output current (A a.c.) 10 Max. bypass output power (W) 2200 Power factor 0.8 leading to 0.8 lagging GENERAL DATA | Battery rated voltage (V d.c.) | 35.2 | |
| Warm up function Optional AC INPUT 1200 Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT 800 Rated power (W) 800 Max. apparent power (VA) 800 Max. apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT 1200 Max. apparent power (VA) 1200 Nominal frequency (Hz) 50/60 Max. output current (A a.c.) 5.4 Max. bypass output current (A a.c.) 5.4 Max. bypass output power (W) 2200 Power factor 0.8 leading to 0.8 lagging GENERAL DATA | Voltage range (V d.c.) | 31.9~40.1 | |
| AC INPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Max. input current (A a.c.) AC OUTPUT Rated power (W) Rated apparent power (VA) Max. apparent power (VA) Max. apparent power (VA) Rated apparent power (VA) Max. apparent power (VA) Nominal voltage (V a.c.) Rated output current (A a.c.) Nominal frequency (Hz) Rated output current (A a.c.) Power factor D.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Sol60 Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor O.8 leading to 0.8 lagging GENERAL DATA | Max.charge/discharge current (A d.c.) | 60/60 | |
| Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT 800 Rated power (W) 800 Rated apparent power (VA) 800 Max. apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. output current (A a.c.) 5.4 Max. bypass output current (A a.c.) 10 Max. bypass output power (W) 2200 Power factor 0.8 leading to 0.8 lagging GENERAL DATA | Warm up function | Optional | |
| Nominal voltage (V a.c.) 220/230/240 | AC INPUT | | |
| Nominal frequency (Hz) 50/60 Max. input current (A a.c.) 5.4 AC OUTPUT 800 Rated power (W) 800 Max. apparent power (VA) 800 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Rated output current (A a.c.) 3.6/3.5/3.3 Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. output current (A a.c.) 5.4 Max. bypass output current (A a.c.) 10 Max. bypass output power (W) 2200 Power factor 0.8 leading to 0.8 lagging GENERAL DATA | Max. apparent power (VA) | 1200 | |
| Max. input current (A a.c.) AC OUTPUT Rated power (W) Rated apparent power (VA) Max. apparent power (VA) Nominal voltage (V a.c.) Rated output current (A a.c.) Power factor EPS OUTPUT Max. apparent power (VA) Nominal voltage (V a.c.) 1200 Nominal voltage (V a.c.) 220/230/240 No leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Nominal frequency (Hz) Max. output current (A a.c.) Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor GENERAL DATA | Nominal voltage (V a.c.) | 220/230/240 | |
| Max. input current (A a.c.) AC OUTPUT Rated power (W) Rated apparent power (VA) Max. apparent power (VA) Nominal voltage (V a.c.) Rated output current (A a.c.) Power factor EPS OUTPUT Max. apparent power (VA) Nominal voltage (V a.c.) 1200 Nominal voltage (V a.c.) 220/230/240 No leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Nominal frequency (Hz) Max. output current (A a.c.) Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor GENERAL DATA | Nominal frequency (Hz) | 50/60 | |
| Rated power (W) Rated apparent power (VA) Max. apparent power (VA) Nominal voltage (V a.c.) Rated output current (A a.c.) Power factor Max. apparent power (VA) 1200 Nominal voltage (V a.c.) 220/230/240 Rated output current (A a.c.) Rated output current (A a.c.) Power factor Based ing to 0.8 lagging EPS OUTPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Max. output current (A a.c.) Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor GENERAL DATA | Max. input current (A a.c.) | 5.4 | |
| Rated apparent power (VA) Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Rated output current (A a.c.) Power factor Max. apparent power (VA) 1200 Nominal voltage (V a.c.) Nominal voltage (V a.c.) Nominal voltage (V a.c.) Nominal frequency (Hz) 50/60 1200 Nominal voltage (V a.c.) 220/230/240 Nominal frequency (Hz) 50/60 Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) 2200 Power factor 0.8 leading to 0.8 lagging | AC OUTPUT | | |
| Max. apparent power (VA) Nominal voltage (V a.c.) Rated output current (A a.c.) Power factor EPS OUTPUT Max. apparent power (VA) Nominal voltage (V a.c.) 1200 Nominal voltage (V a.c.) Nominal voltage (V a.c.) Nominal requency (Hz) Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor 0.8 leading to 0.8 lagging 1200 1200 1200 100 100 100 100 | Rated power (W) | 800 | |
| Nominal voltage (V a.c.) Nominal frequency (Hz) Rated output current (A a.c.) Power factor EPS OUTPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Max. output current (A a.c.) Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor GENERAL DATA | Rated apparent power (VA) | 800 | |
| Nominal frequency (Hz) Rated output current (A a.c.) Power factor Does I leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor GENERAL DATA 3.6/3.5/3.3 0.8 leading to 0.8 lagging 5.8 leading to 0.8 lagging 5.9 leading to 0.8 lagging 5.9 leading to 0.8 lagging | Max. apparent power (VA) | 800 | |
| Rated output current (A a.c.) Power factor 0.8 leading to 0.8 lagging EPS OUTPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor GENERAL DATA 0.8 leading to 0.8 lagging 0.8 leading to 0.8 lagging | Nominal voltage (V a.c.) | 220/230/240 | |
| Power factor EPS OUTPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor GENERAL DATA 0.8 leading to 0.8 lagging 1200 1200 1200 10 0.8 leading to 0.8 lagging | Nominal frequency (Hz) | 50/60 | |
| EPS OUTPUT Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor GENERAL DATA 1200 220/230/240 50/60 10 10 0.8 leading to 0.8 lagging | Rated output current (A a.c.) | 3.6/3.5/3.3 | |
| Max. apparent power (VA) Nominal voltage (V a.c.) Nominal frequency (Hz) Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor GENERAL DATA | Power factor | 0.8 leading to 0.8 lagging | |
| Nominal voltage (V a.c.) Nominal frequency (Hz) Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor GENERAL DATA 220/230/240 50/60 10 5.4 10 0.8 leading to 0.8 lagging | EPS OUTPUT | | |
| Nominal frequency (Hz) 50/60 Max. output current (A a.c.) 5.4 Max. bypass output current (A a.c.) 10 Max. bypass output power (W) 2200 Power factor 0.8 leading to 0.8 lagging GENERAL DATA | Max. apparent power (VA) | 1200 | |
| Max. output current (A a.c.) Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor GENERAL DATA 5.4 10 2200 0.8 leading to 0.8 lagging | Nominal voltage (V a.c.) | 220/230/240 | |
| Max. bypass output current (A a.c.) Max. bypass output power (W) Power factor GENERAL DATA 10 0.8 leading to 0.8 lagging | Nominal frequency (Hz) | 50/60 | |
| Max. bypass output power (W) Power factor GENERAL DATA 2200 0.8 leading to 0.8 lagging | Max. output current (A a.c.) | 5.4 | |
| Power factor 0.8 leading to 0.8 lagging GENERAL DATA | Max. bypass output current (A a.c.) | 10 | |
| GENERAL DATA | Max. bypass output power (W) | 2200 | |
| | Power factor | 0.8 leading to 0.8 lagging | |
| Topology Isolated | GENERAL DATA | | |
| | Topology | Isolated | |
| Ingress protection IP65 | Ingress protection | IP65 | |
| Protective class Class I | Protective class | Class I | |
| Over voltage category III (AC side), II (DC side) | Over voltage category | III (AC side), II (DC side) | |
| Operating temperature range (°C) -20~55 | Operating temperature range (°C) | -20~55 | |
| Warm up function Optional | Warm up function | Optional | |
| Dimensions (W×D×H) (mm) 420*285*255 | Dimensions (W×D×H) (mm) | 420*285*255 | |
| Weight (kg) 25.8±5% | Weight (kg) | 25.8±5% | |

4.3 Avocado 22 Pro-E Specifications

| Specifications for Avocado 22 Pro-E | | |
|---------------------------------------|----------------------------|--|
| Battery type | LFP (LiFePO ₄) | |
| Rated capacity (Ah) | 60 | |
| Nominal energy (kWh) | 2.11 | |
| Nominal voltage (V d.c.) | 35.2 | |
| Voltage range (V d.c.) | 31.9~40.1 | |
| Max.charge/discharge current (A d.c.) | 40/40 | |
| Ingress protection | IP65 | |
| Protective class | Class I | |
| Operating temperature range (°C) | -20~55 | |
| Warm up function | Optional | |
| Dimensions (W×D×H) (mm) | 420*220*270 | |
| Weight (kg) | 23.0±5% | |

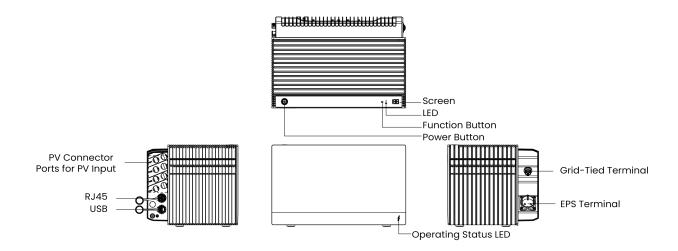
5. Product Features

5.1 System Features

The product has been fitted with multiple protection systems to ensure the safe operation of the system. Some of the protection systems include:

- Inverter protection: Over voltage, Over current, External short circuit, Over temp, In rush current, Insulation impedance, Anti islanding protection.
- Battery Protection: Over voltage, Over current, Over temp, Under voltage, Under temp.
- The product contains the following Interface to allow it to connect and operate efficiently.

Avocado 22 Pro-M/AC Features:



PV Connector Ports for PV Input 1~4 (Only applicable to Avocado 22 Pro-M)

Connect each set of PV modules to each set of PV input ports in Avocado 22 Pro-M.

RJ45

Connect to the smart meter through RS485 communication. If you use wireless meter, you don't need to connect it.

USB

Connect to a USB flash drive to upgrade firmware.

Power Button

| Button | Action | Function |
|----------|---|---------------------------|
| | Press for 2 seconds (in power off state) | Turn on the battery |
| | Press for 2 seconds (in power on state) | Enable/disable EPS output |
| ·: Œ | Press for 5 seconds (in power on state) | Turn off the battery |
| | Press for 2 seconds (in screen off state) | Light up the screen |
| ● | Press for 2 seconds (in screen on state) | Switch the screen page |
| • | Press for 20 seconds | Reset bluetooth and WiFi |

Screen LED

OLED screen displays inverter data, PV data, battery data, fault information, etc. After 10 minutes, the OLED screen will turn off until the function button is pressed again.

Network connection status and meter connection status:

| Icon | Status | Description | |
|----------|-------------|--|--|
| ! | Icon is on | Meter is disconnected | |
| | Icon is off | Meter is connected | |
| ? | Icon is on | WiFi connected and connected to the cloud | |
| | Icon is off | WiFi not connected or not connected to the cloud | |

Operating Status LED

| Status | Red | Green | Description |
|----------------|-----|-------|------------------------------|
| Self check | 1 | • | Green light flashing |
| Charge | 1 | • | Dual lights flashing quickly |
| Discharge/Idle | 1 | • | Green light always on |
| Fault | • | 1 | Red light always on |

| Symbol | Status | |
|--------|---|--|
| • | LED flash display (on: 0.5s, off: 0.5s) | |
| I | LED off display | |
| • | LED on display | |
| • | ◆ LED flash display (on: 2s, off: 1s) | |

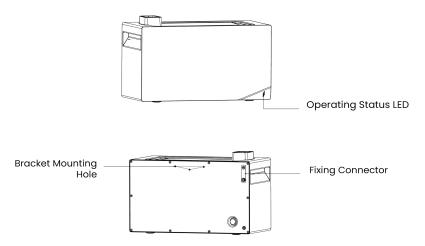
Grid-Tied Terminal

Connect to grid.

EPS Terminal

Connect to backup load.

Avocado 22 Pro-E Features:



Operating Status LED

LED displays the running or fault status of product. Display information is the same as Avocado 22 Pro-M/AC.

Bracket Mounting Hole

Fix the product to the wall together with bracket.

Fixing Connector

The bracket: Its function is to secure two vertically stacked finished products, enhancing their stability.

6. Installation

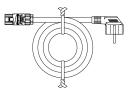
6.1 Items in the package

Please check if the following items are including with the package:

For Avocado 22 Pro-M/AC



Cable tie buckles*5



AC cable



Sealing head

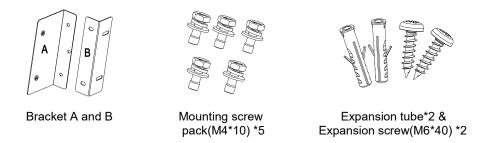


PV connector puller*1 (Only applicable to Avocado 22 Pro-M)



Installation guide

For Avocado 22 Pro-E



6.2 Tools

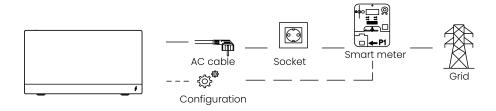
The following tools will be required to installation.



6.3 Installation Steps

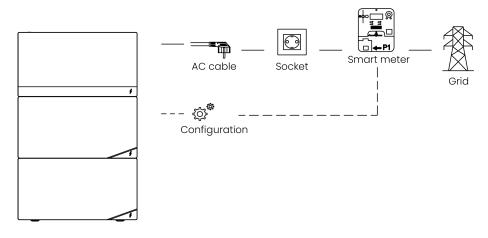
Scenario 1 - Use Avocado 22 Pro-AC alone:

The following figure shows an example of a single Avocado 22 Pro-AC.



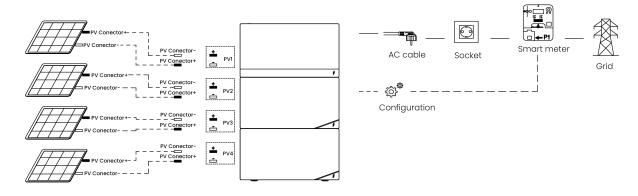
Scenario 2 - Use Avocado 22 Pro-AC and Avocado 22 Pro-E stacked:

The following figure shows an example of one Avocado 22 Pro-AC paired with two Avocado 22 Pro-E.



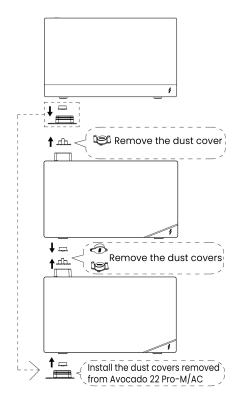
Scenario 3 - Use Avocado 22 Pro-M and Avocado 22 Pro-E stacked:

The following figure shows an example of Avocado 22 Pro-M paired with four PV panels.

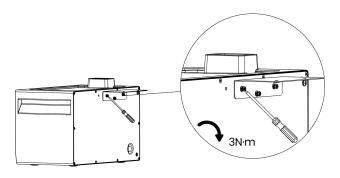


Note: The following installation steps are applicable for installing extended batteries.

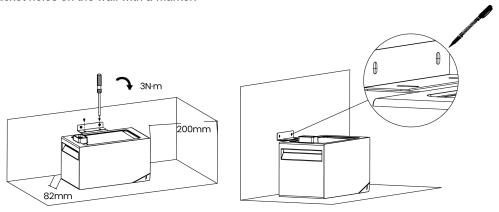
Step 1: Install the dust covers of the bottom Avocado 22 Pro-E and remove the other dust covers.



Step 2: Lock bracket A to the rear cover of the battery with screws (M4*10).

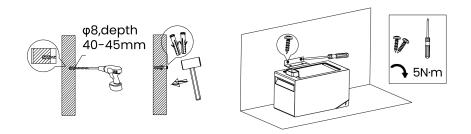


Step 3: Lock bracket B to bracket A and move the battery to a suitable position against the wall and mark the bracket holes on the wall with a marker.

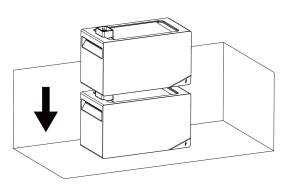


Step 4: Remove the battery before drilling.

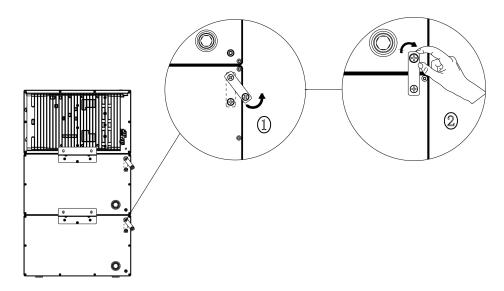
Drill $\phi 8^*40$ mm or deeper holes at the two markers, hammer the expansion tubes into the holes, and then use a screwdriver to fasten the two M6*40 expansion screws to the bracket B.



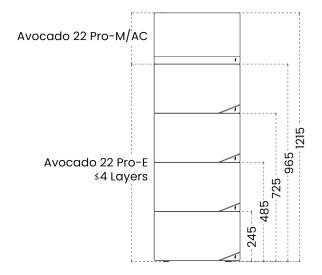
Step 5: Install the required stacked battery in the orientation shown in the figure.



Step 6: Rotate the fixing connector to the corresponding hole of the upper battery and tighten the screw to fix it.

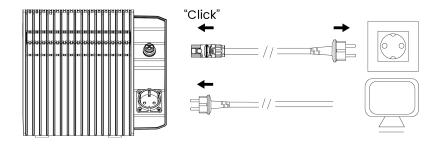


Note: Ensure that each system has only one unit of Avocado 22 Pro-M/AC and a maximum of four units of Avocado 22 Pro-E.

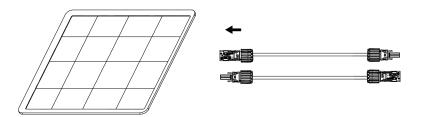


6.4 Electrical Connections

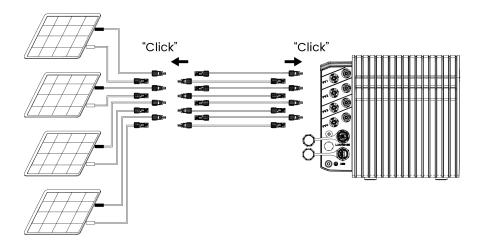
1. Connect Avocado 22 Pro-M/AC to a home outlet using the included AC Cable.



2. Find the PV connector ports of your solar panels.

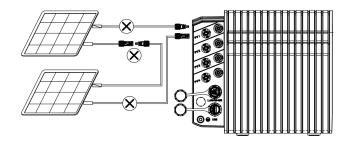


3. Connect each PV module directly to the same set of PV input ports. Please ensure that the connection is securely fastened.

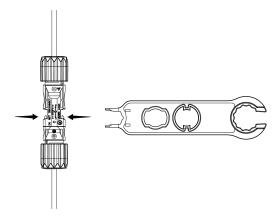


Note:

- Ensure that unused PV ports on Avocado 22 Pro-M are sealed with waterproof caps.
- When connecting PV modules in parallel, please check the specifications of the PV modules and ensure that the total short-circuit current does not exceed 25A.
- Never connect the same set of PV connectors to different sets of PV input ports.
- Never connect PV modules in series because this causes the input voltage to exceed 60V and will damage the equipment.

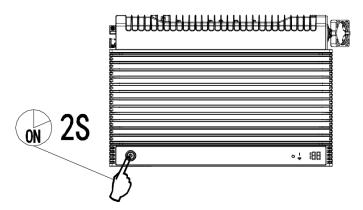


4. If you want to unplug the PV connector: After ensuring the system is turned off, use the included wrench to safely remove the PV connector.



6.5 Turn on the system

Press and hold the power button on the Avocado 22 Pro-M/AC for 2 seconds to power on and enable ne twork pairing. If pairing is successful, the "WiFi" LED of the Avocado 22 Pro-M/AC will light up.

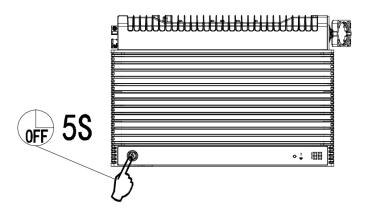


6.6 Adding an Expansion Battery

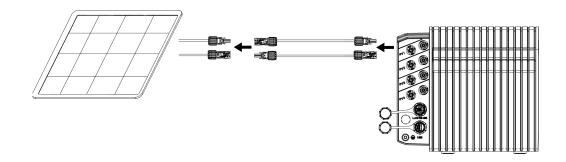
To protect yourself and the equipment, ensure the system is powered off before installing or adding expansion batteries. Installation while the system is powered on is not covered under warranty. Follow the steps below to add an expansion battery to the system. The example system includes one Avocado 22 Pro-M/AC and two expansion batteries.

Step 1: Disassemble the System.

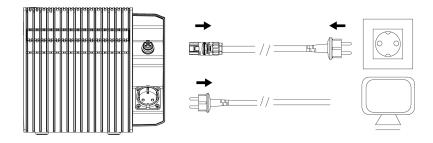
1. Ensure Avocado 22 Pro-M/AC is turned off. To turn it off, press the power button for 5 seconds.



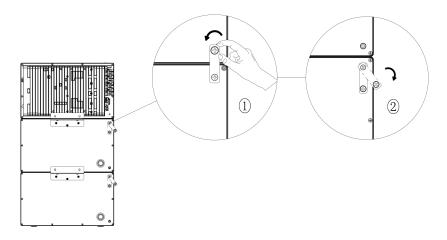
2. Disconnect Avocado 22 Pro-M from PV.



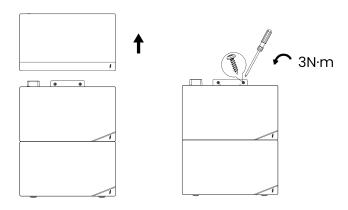
3. Unplug Avocado 22 Pro-M/AC from the home outlet and any connected device.



4. If applicable, remove the wall-mounted bracket from the first expansion battery cover below the Avocado 22 Pro-M/AC.

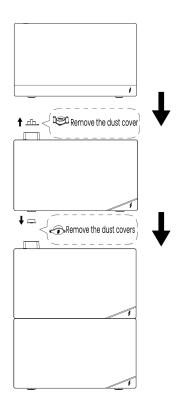


5. If applicable, remove the fixing bracket from the back cover of the extended battery.



Step 2: Mount the Expansion Battery.

- 1. Unfasten the screws(if applicable) and remove the dust cover.
- 2. Stack the new expansion battery under Avocado 22 Pro-M/AC.
- 3. Please follow the assembly process in sections 6.3 and 6.4 to complete the assembly.



7. APP Configuration

Use the FoxCloud2.0 application to remotely monitor and control your Avocado 22 Pro storage system. Please note that the user interface images displayed are for illustration purposes and may differ from your actual view based on the software version.

7.1 Download the App

Download the FoxCloud2.0 on App Store and Google Play.









7.2 Configuration Guide

Step 1: Select your region

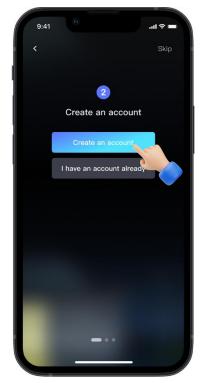
Open FoxCloud2.0 and click "Getting Started". Then select your region.





Step 2: Create an account.

Click "Create an account". Then choose your role and enter the basic information.





Step 3: Connect to network

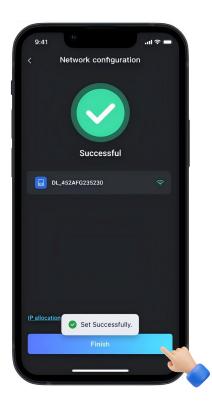
Open bluetooth and APP will search device automatically. Then click "Next".

Choose a WiFi and enter password. Then click "Next".







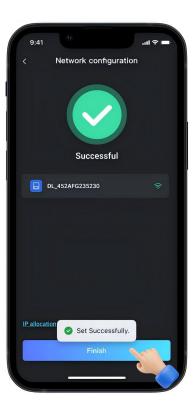


Step 4: Configure the meter

Choose a meter brand the balcony battery connected. Then click "Confirm".





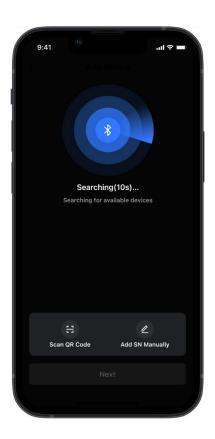


Step 5: Login and create a plant
Sign in your account. Then click "Create a Plant".





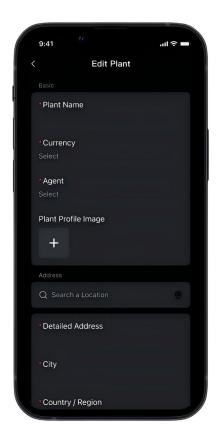
Step 6: Create a plant
Open bluetooth and APP will search device automatically. Then click "Next".

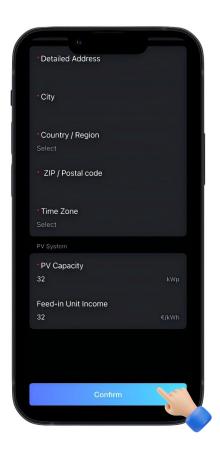




Step 7: Create a plant

Enter basic information such as plant name, address and so on. Then click "Confirm".





Step 8: Finish

After creating a plant, device data will come online within 3-5 minutes. Please wait and swipe down to refresh this page.



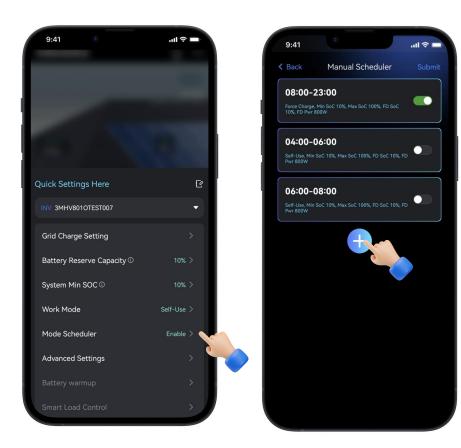


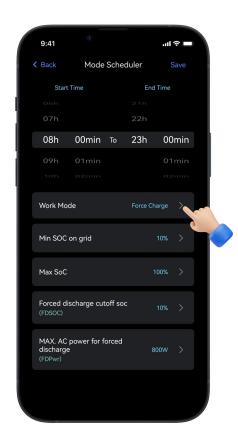
7.3 Set Operation Mode

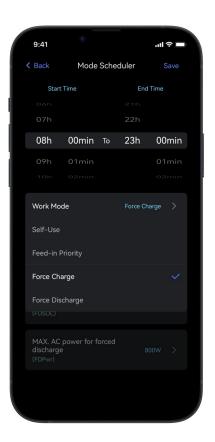
Scheduler mode

When scheduler mode segmented time mode is enabled, the system will work according to the time period set by the platform. Users can set the Start Time, End Time, Work Mode, Min SOC, Max SOC, Max AC Power.

| Work mode | Description | |
|---|--|--|
| Invalid During this time period, the inverter is in zero power discharge state. | | |
| Self-use During this time period, the inverter operates in Self-use mode. | | |
| Feed-in During this time period, the inverter operates in Feed-in mode. | | |
| Charge During this time period, prioritize charging the battery, and the charging por | | |
| Onargo | inverter is the set power. Battery won't discharge during charging time period. | |
| Discharge | During this time period, set the inverter to discharge at the set power. Battery won't | |
| Discharge | charge during discharging time period. | |



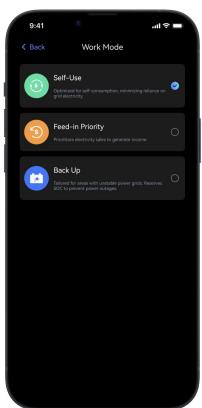




Work mode

| Work mode | Description | | |
|-------------------|---|--|--|
| | Priority: Load > Battery > Grid | | |
| | 1. When there is PV power, the PV energy is prioritized for use by the load. After | | |
| | meeting the load power, the excess power is used to charge the battery, and when | | |
| Self-use | there is more excess PV energy, it is fed back to the grid. When the PV power is | | |
| | insufficient for the load power, the remaining power is supplied from the battery. | | |
| | 2. When there is no PV energy or AC model, the load power is provided by the | | |
| | battery. | | |
| | Priority: Load > Grid > Battery | | |
| | 1. When there is PV power, the PV energy is prioritized for use by the load. After | | |
| | meeting the load's usage requirements, excess power is prioritized for grid | | |
| Feed-in priority | connection. When there is excess PV power after grid connection, charge the | | |
| r eed-in priority | battery. When the PV power is insufficient for the load power, the remaining power is | | |
| | supplied from the battery. | | |
| | 2. When there is no PV energy or AC mode, the load power is provided by the | | |
| | battery. | | |
| | 1. On-grid state, PV energy is given priority to charging the battery. When the PV | | |
| Back up | power is higher than the charging power, the remaining PV power is used by the | | |
| | load. When there is excess PV power, it will be fed to the grid. When the remaining | | |
| Баск ир | power of the PV system after deducting the charging power is lower than the load | | |
| | power or when there is no PV power, the battery does not discharge. | | |
| | 2. Off-grid state, the battery discharges normally to supply power to the EPS load. | | |





8. Troubleshooting and Maintenance

8.1 Maintenance

- 1) Please recharge batteries that have been stored for more than 6 months in a timely manner.
- 2) For the first installation, the interval among manufacture dates of battery modules shall not exceed 3 months.
- Regularly check whether the service environment of the battery meets the requirements, and the installation position should be far away from the heat source.
- 4) The battery module should be stored in an environment with a temperature range between -20°C~55°C, and charged regularly according to the table below with no more than 0.5 C(C-rate is a measure of the rate at which a battery is discharged relative to its maximum capacity) to the SOC of 50% after a long time of storage.

| Storage environment temperature | Relative humidity of the storage environment | Storage time | soc |
|---------------------------------|--|--------------|-------------|
| Below -20℃ | 1 | Not allowed | 1 |
| -20~0℃ | 10%~90% | ≤ 1 months | 20%≤SOC≤50% |
| 0~35℃ | 10%~90% | ≤ 6 months | 20%≤SOC≤50% |
| 35~55℃ | 10%~90% | ≤ 1 months | 20%≤SOC≤50% |
| Above 55°C | 1 | Not allowed | 1 |

NOTICE

- If the battery is stored over one year, 5% 8% of the capacity may lose irreversibly.
- 5) Every year after installation. The connection of power connector, power cable and screw are suggested to be checked. Make sure there is no loose, no broken, no corrosion at connection point. Check the installation environment such as dust, water, insect etc.

8.2 Storage with Low SOC

After the product is powered off, static power consumption and self-discharge loss may occur in internal modules. Therefore, charge batteries in a timely manner and do not store the product in low SOC. Otherwise, the product may be damaged due to over discharge, and battery modules need to be replaced.

Storage in low SOC may occur in the following scenarios:

- The power button on the power control module is off.
- · The power cables or signal cables are not connected.
- The batteries cannot be charged due to a system fault after discharge.
- The batteries cannot be charged due to incorrect configurations in the system.
- The batteries cannot be charged due to no PV input and long-term mains failure.
- The Link In and Link Out interface cables are not securely connected.

Regardless of scenarios, the batteries must be charged within the longest interval corresponding to the SOC when the batteries are powered off. If the batteries are not charged within the specified interval, they may be damaged due to over discharge.

| Storage environment temperature | Power-Off SOC before storage | Maximum charge interval |
|---------------------------------|------------------------------|-------------------------|
| 0~35 ℃ | 0% ≤ SOC < 5% | 7 days |

Note: When the battery SOC decreases to 0%, charge the batteries within seven days. Permanent battery faults caused by delayed charge due to customer reasons are beyond the warranty scope.

8.3 Troubleshooting

When the red/green LED is flashing or normally on, it does not mean that the product is abnormal, it may be just an alarm or protection. Please check the fault information in the below table for the detailed faulty definition before any trouble-shooting steps. In general, the alarm indication is normal without manual intervention. When the alarm triggering state is removed, product will automatically return to normal use.

| Fault code | Fault definitions | Solutions | |
|------------|--|---|--|
| 7194 | Battery over temperature protection | After waiting for the battery to cool down naturally, it will automatically restore. If the fault persists for more than 3 hours, please contact the local dealer and the technical team. | |
| 7112/7144 | MPPT Insulation fault | Please check if the insulation of electric wires is damaged. | |
| 7117/7149 | MPPT BAT Short Current | Please check whether the input meets the specifications of solar charging. Remove the PV input or restart the product to resume normal operation. | |
| 7230 | Battery fuse fault | Please contact the local dealer and technical team. | |
| 7053 | INV BAT DUV | Please ensure timely recharging. If the problem persists after 2-3 hours of recharge, please contact | |
| 7197 | Battery under voltage | the local dealer and the technical team. | |
| 7193 | Battery under temperature protection | Please move the product to a warmer spot or connect it to PV power before use. | |
| 7015 | INV OP | | |
| 7186 | Battery Current Sensor Fault | | |
| 7187 | Battery Temperature Sensor Fault | | |
| 7188 | Battery Volt Sensor Fault | Restart the product, if this phenomenon appears repeatedly after restoring for several times, please contact the local dealer and technical team. | |
| 7199 | Battery internal communication fault | | |
| 7200 | Communication failure between battery and PCS | | |
| 7217 | Battery Parallel address fault | | |
| 7222 | Battery AFE Communication fault | | |
| 7228 | Battery Permanent failure of battery under voltage | | |
| 7016 | INV OC | | |
| 7022 | DCDC Pre-Charge Fail | | |
| 7023 | DCDC Start Fail | | |
| 7024 | PFC Start Fail | | |
| 7039 | Bus UV | | |
| 7040 | Bus OV | Restore automatically, if this phenomenon appears | |
| 7048 | INV temperature sample fail | repeatedly after restoring for several times, please contact the local dealer and the technical team. | |
| 7050 | INV BAT ODC | | |
| 7051 | INV BAT OCC | | |
| 7052 | INV BAT Sample Fail | | |
| 7056 | INV BAT COV | | |
| 7067 | Off grid Start Fail | | |

| 7068 | Off grid OP | | |
|-------------------------|----------------------------------|--|--|
| 7069 | Off grid Short Current | | |
| 7070 | Off grid OC | | |
| 7071 | Off grid UV | | |
| 7072 | Off grid OV | | |
| 7100 | INV AC HW OV | | |
| 7104 | INV Self check Fail | | |
| 7118/7150 | MPPT BAT OC | | |
| 7191 | Battery Hardware Protect | | |
| 7195 | Battery discharging over current | | |
| 7196 | Battery charging over current | | |
| 7198 | Battery over voltage | | |
| 7223 | Battery Short current | | |
| 7120/7152 | MPPT BAT OV | | |
| 7133/7125/ 7165/7157 | PV Back flow | Restore automatically, if this phenomenon appears repeatedly after restoring for several times, please check the specification parameters of the PV plate firstly, if the PV parameters are within the | |
| 7134/7126/ 7166/7158 | PV OC | | |
| 7135/7127/ 7167/7159 | PV UV | specification, please contact the local dealer and the technical team. | |
| 7136/7128/ 7168/7160 | PV OV | | |
| 7047 | INV OT | The environment temperature is too high, it will restart automatically after cooling down. | |
| 7123 | PV low light protection | This is just a reminder message, caused by unstable sunlight. | |
| 7132/7124/ 7164/7156 | PV OT | Turn off the product and place it in an open area for 2-3 hours. After cooling, the product will continue to work normally. | |

Exclusion

The warranty shall not cover the defects caused by normal wear and tear, inadequate maintenance, handling, storage faulty repair, modifications to the product by a third party other than manufacturer or agent, failure to observe the product specification provided herein or improper use or installation, including but not limited to the following.

- Damage during transport or storage.
- · Incorrect Installation of battery into product or maintenance.
- · Use of product in inappropriate environment.
- Improper, inadequate, or incorrect charge, discharge or production circuit other than stipulated herein.
- · Incorrect use or inappropriate use.
- Insufficient ventilation.
- · Ignoring applicable safety warnings and instructions.
- · Altering or attempted repairs by unauthorized personnel.
- In case of force majeure (ex: lightning, storm, flood, fire, earthquake, etc.).
- There are no warranties-implied or express-other than those stipulated herein. Manufacturer shall
 not be liable for any consequential or indirect damages arising or in connection with the product
 specification, inverter, MPPTs, battery or pack.

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FOXESS CO., LTD.

Add: No.939, Jinhai Third Road, New Airport Industry Area, Longwan District, Wenzhou, Zhejiang, China

Tel: 0510- 68092998

Web: WWW.FOX-ESS.COM