

• YOUR
• SMART
• ENERGY



SMILE-G3

RESIDENTIAL SERIES

POWER
3.68 / 5 kW

CAPACITY
10.1 kWh Battery Modular
Expandable To 60.5 kWh



Modular Design

UPS Ability

200% PV Input

Faster Response for VPP Control

Support Dual Power Supply (Grid & Diesel Generator)



SMILE-G3



Model	SMILE-G3-S3.6	SMILE-G3-S5	SMILE-G3-B5
System Specification			
Nominal Output Power	3680 W	5000 W	5000 W
Capacity Range	10.1 ~ 60.5 kWh (95% DoD)		
Battery Chemistry	LFP (LiFePO4)		
IP Protection	IP65 (Outdoor)		
System Dimension (W x D x H)	610 x 250 x 1161 mm (with Bracket)		
System Weight	109.5 kg		
Warranty	10 Year Product Warranty, 10 Year Battery Performance Warranty		
Inverter Technical Specification			
Model	SMILE-G3-S3.6-INV	SMILE-G3-S5-INV	SMILE-G3-B5-INV
Coupling	Hybrid	Hybrid	AC
Max. PV Input Power	7360 W	10000 W	N/A
Max. PV Input Current	15 A / 15 A		N/A
Max. PV Input Voltage	580 V		N/A
MPPT Number / Max. Input Strings Number per MPPT	2/1		N/A
MPPT Voltage Range	100 ~ 550 V		N/A
Max. PV Short-Circuit Current	24 A / 24 A		N/A
Max. Charging/Discharging Current	60 A		
Max. Charging/Discharging Power	3680 W	5000 W	5000 W
Rated Frequency	50 / 60 Hz		
Rated Voltage	230 V		
Rated Output Apparent Power (Grid Port)	3680 VA	5000 VA	5000 VA
Rated Output Apparent Power (Backup Port)	3680 VA	5000 VA	5000 VA
Max. AC input Power (Grid Port)	7360 W	10000 W	10000 W
Rated Output Current (Grid Port)	16 A	21.7 A	21.7 A
Max. AC Output Current (Grid Port)	16 A	21.7 A	21.7 A
Rated Output Current (Backup Port)	16 A	21.7 A	21.7 A
Max. AC Output Current (Backup Port)	16 A	21.7 A	21.7 A
Max. Inverter Efficiency	97.3%		
Backup	UPS		
Communication	Ethernet / WiFi/DR Controllable		
Humidity	0~90% (Non-Condensing)		
Dimension (W x D x H)	610 x 212 x 366 mm		
Weight	19.5 kg		
Safety	IEC 62109, IEC 62040		
EMC	EN61000-6-1/-2/-3/-4		
Grid Regulation	AS4777.2, NRS 097, VDE 0126, VDE 4105, EN 50549		
Battery Technical Specification			
Module Mode	SMILE-G3-BAT-10.1P		
Module Capacity	10.1 kWh		
Usable Capacity	9.6 kWh		
Depth of Discharge (DoD)	95%		
Nominal Voltage	96 V		
Battery Voltage Range	91.5 V ~ 106.5 V		
Max. Charging/Discharging Current	60 A		
Operating Temperature Range	-10 °C ~ 50 °C*		
Cycle Life	8000**		
Battery Modules Connectable	1 ~ 6 in Parallel		

* When the ambient temperature is too low or too high, the performance of battery may be limited.
 ** Under specific test conditions.



Datasheet

YOUR
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SMILE-M5

RESIDENTIAL SERIES

POWER

5 kW Hybrid Inverter
Single Phase

CAPACITY

5 ~ 30 kWh with
5 kWh Battery Module



Quick Setup with Stackable Design

Fast-Suppression Aerosol Fire Defense

Boost Profits with 200% PV Oversizing

Expert in All-in-One System

SMILE-M5



Model	SMILE-M5
System Specification	
Nominal Output Power	5000 W
Max. Battery Capacity	5 ~ 30 kWh (100% DoD)
Battery Chemistry	LFP (LiFePO4)
Warranty	10 Years Warranty
Inverter Technical Specification	
Model	SMILE-M5-S-INV
Inverter Type	Hybrid Inverter
Max. PV Input Power	10000 W
Max. PV Input Current (per MPPT)	16 A
Max. PV Input Voltage	550 V
MPPT Number / Max. Input Strings Number per MPPT	2/1
MPPT Voltage Range	100 ~ 550 V
Max. PV Short-Circuit Current (per MPPT)	25 A
Max. Charging / Discharging Current	100 A
Max. Charging / Discharging Power	5000 W
Rated Frequency	50 / 60 Hz
Rated Voltage	230 V
Phase	Single Phase
Backup	UPS
Communication	Ethernet / WiFi
Dimensions (W*H*D)	620 * 240 * 412.5 mm
Weight	19.5 kg
Ingress Protection(IP) Rating	IP 65
Safety	IEC62109-1/-2, IEC62477
EMC	IEC 61000-6-1/3, IEC61000-302/3
Grid Regulation	AS / NZ4777.2
Battery Technical Specification	
Module Model	SMILE-M-BAT-5P
Nominal Capacity	5 kWh
Modules Connection	1 ~ 6 in parallel
Max. Charging/Discharging Current	100 / 100 A
Operating Temperature Range	0 ~ 50 °C (Charge); -10 ~ 50 °C (Discharge)
IP Protection	IP 65
Dimensions (W*H*D)	620 * 240 * 390 mm
Weight	49.5 kg



ALPHAESS Australia

✉ australia@alpha-ess.com

☎ +61 02 90007676

📍 8/15-21 Gibbes Street Chatswood NSW 2067 Australia

YOUR
SMART
ENERGY



up to
>12%

Additional
energy use



up to
>20%

Longer
service life



SMILE-G3-T12/T15/T20

HOME SERIES

POWER

12 / 15 / 20 kW

CAPACITY

SMILE-G3-BAT-3.8S Modular
7.3 kWh ~ 43.8 kWh

SMILE-G3-BAT-4.5S Modular
9.12 kWh ~ 27.36 kWh

SMILE-G3-BAT-9.3S Modular
18.6 kWh ~ 111.6 kWh



Munich RE



red dot design award 2022



GOOD DESIGN AWARD



HYBRID BATTERY

Optimal capacity utilization through pack balancing

100% charge/discharge power at 1C

High reliability through Multi-BMS system

Safe lithium iron phosphate (LFP) cells

Performance warranty up to 25 years

5-year all-risk insurance (optional)

HYBRID INVERTER

UPS capability

Price signaling capability

Wall or floor mounting

Anti-shading function

3x MPPTs optimal for flexible roof orientation

Smart Home Ready

SMILE-G3-T12/T15/T20



Model	SMILE-G3-T12	SMILE-G3-T15	SMILE-G3-T20
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System Specifications

Nominal Output Power	12 kW	15 kW	20 kW
Usable Capacity Range	7.3 - 43.8 kWh / 7.6 - 22.8 kWh / 9.12 - 27.36 kWh / 18.6 - 111.6 kWh		
Battery Chemistry	LFP (LiFePO ₄)		
Warranty	10 Years Product Warranty, 10 Years Battery Performance Warranty		

Inverter Technical Specifications

Model	SMILE-G3-T12-INV	SMILE-G3-T15-INV	SMILE-G3-T20-INV
Coupling	Hybrid	Hybrid	Hybrid
Max. PV Input Power	24 kW	30 kW	40 kW
Max. PV Input Current	18 A / 18 A / 18 A		
Max. PV Input Voltage	1,000 V		
MPPT Number / Strings per MPPT	3 / 1		
MPPT Voltage Range	200 ~ 850 V		
Max. PV Short-Circuit Current	22.5 A / 22.5 A / 22.5 A		
Max. Charging/Discharging Current	60 A		
Max. Charging/Discharging Power	12 kW	15 kW	20 kW
Nominal Frequency	50 / 60 Hz		
Nominal Voltage	220 V / 380 V, 230 V / 400 V		
Phase	Three Phase		
Nominal Output Power (Grid Port)	12 kW	15 kW	20 kW
Nominal Output Power (Backup Port)	12 kW	15 kW	20 kW
Nominal Input Power (On-Grid)	17 kW	20 kW	25 kW
Backup	UPS		
Communication	Ethernet / Wi-Fi / Modbus / API		
Relative Humidity	0 ~ 90% (No Condensation)		
Dimensions (W×D×H)	610 × 250 × 610 mm		
Weight	44 kg		
Ingress Protection	IP65		
Safety	IEC 62109-1/-2		
EMC	IEC 61000-6-1/-2/-3/-4		
Grid Regulation	VDE 4105, EN 50549-1, Tor Erzeuger, NRS 097, C10/11		
Overvoltage Category	DC Type II according to EN / IEC 61643		
Cooling	Controlled Ventilator		
Noise	≤ 50 dB		
Maximum/European Efficiency	98 % / 97.5 %		

Battery Technical Specifications

Model	SMILE-G3-BAT-3.8S	SMILE-G3-BAT-4.5S	SMILE-G3-BAT-9.3S
Nominal Capacity	3.8 kWh	4.56 kWh	9.3 kWh
Usable Capacity	3.65 kWh	4.56 kWh	9.3 kWh
Depth of Discharge (DoD)	95 % *	100 % *	100 % *
Nominal Voltage	96 V	96 V	96 V
Max. Charging/Discharging Current	40 A	50 A	52.5 A
Operating Temperature Range	-10°C ~ 50 °C **	-20 °C ~ 50 °C **	-20 °C ~ 50 °C **
Modular Connection	2 ~ 6,8,10,12 ***	2 ~ 6	2 ~ 6,8,10,12 ***
Ingress Protection	IP21	IP65	IP65
Dimensions (W×D×H)	610 × 212.5 × 435 mm	610 × 212.5 × 435 mm	610 × 210 × 634 mm
Weight	39.2 kg	53 kg	81 kg
Noise	≤ 35 dB	≤ 35 dB	≤ 35 dB
Fire-Fighting	Aerosol	Aerosol	Aerosol

* Test condition: Max. 0.5C charge/discharge at 25±2°C.

** Performance reduction may occur depending on the state of charge and temperature. Optimal operating temperature 15°C ~ 30°C.

*** Maximum 6 Batteries for each cluster in series, up to 2 clusters in parallel.



Alpha ESS Co., Ltd.

☎ +86 513 8060 6891
✉ info@alpha-ess.com
🌐 www.alphaess.com
📍 No. 1086, Bihua Road,
Nantong Hi-Tech Zone,
Jiangsu Province, China

Alpha ESS Italy S.r.l.

☎ +39 339 462 4288
✉ info@alphaess.it
🌐 www.alphaess.com
📍 Via Del Molinuzzo 83,
59100 Prato (PO), Italy

Alpha ESS Europe GmbH

☎ +49 610 3459 1601
✉ europe@alpha-ess.de
🌐 www.alphaess.de
📍 Horizon Tower 17.0G
Alfred-Herrhausen-Allee 3-5
65760 Eschborn, Germany

Alpha ESS UK Ltd.

☎ +44 0330 043 2610
✉ info@alpha-ess.co.uk
🌐 www.alpha-ess.co.uk
📍 Drake house, Long street, Dursley,
GL11 4HH United Kingdom

Alpha ESS Australia Pty. Ltd.

☎ +61 02 9000 7676
✉ techsupport@alphaess.au
🌐 www.alphaess.com
📍 8/15-21 Gibbs Street,
Chatswood,
NSW 2067 Australia

Alpha ESS USA, Inc.

☎ +1 408 368 7828
✉ usa@alpha-ess.com
📍 Unit 5 2180 S Ivanhoe St,
Denver, CO 80222 USA

Alpha ESS International Pte. Ltd.

☎ +65 6513 1125 / +65 6513 1126
✉ Singapore@alpha-ess.com
📍 2 Corporation Road #01-06A
Corporation Place 618494
Singapore

Alpha ESS Korea Co., Ltd.

✉ info@alpha-ess.com
📍 2F, 19-4, Nohyeong 11-gil,
Jeju-si, Jeju-do, Republic
of Korea

Alpha ESS Benelux B.V.

✉ contact@alphaess.nl
🌐 www.alphaess.nl
📍 High Tech Campus 41, 5656AE
Eindhoven, the Netherlands

Alpha ESS South Africa (Pty.) Ltd.

✉ measervice@alpha-ess.com
📍 La Rocca Office Park, Block
B1 321 Main Road, Bryanston,
Johannesburg, 2191

YOUR
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SMILE-M-BAT-13.9P

RESIDENTIAL SERIES

CAPACITY

13.99 kWh Modular



SMILE-M-BAT-13.9P



Model	SMILE-M-BAT-13.9P	SMILE-M-BAT-13.9P II	SMILE-M-BAT-13.9P III	SMILE-M-BAT-13.9P IV
Physical Parameters				
Battery Type	LFP (LiFePO4)			
Installation Method	Base Installation			
Dimension (W x D x H)	620 x 240 x 710 mm			
Weight	115 kg			
IP Protection	IP65			
Warranty	10 Year Battery Performance Warranty			
Electrical Parameters				
Energy Capacity	13.99 kWh	27.99 kWh	41.99 kWh	55.99 kWh
Usable Energy	13.99 kWh	27.99 kWh	41.99 kWh	55.99 kWh
Depth of Discharge (DoD)	100 %			
Nominal Voltage	48V			
Operating Voltage Range	45 ~ 54 V			
Operating Parameters				
Max. Charging Current	105 A			
Max. DischargingCurrent	105 A			
Rated DC Power	5.04kW			
Conditional Short-circuit current	° 6 kA			
Charge Operating Temperature	0 °C , ..., 50 °C			
Discharge Operating Temperature	-10 °C , ..., 50 °C			
Relative Humidity	0 ~ 95% (No Condensation)			
BMS				
Modules Connection	1 ~ 4 in parallel connection			
Usable Capacity	13.99 / 27.98 / 41.97 / 55.96 kWh			
Monitoring Parameters	Systemvoltage, current, cellvoltage, cell temperature, PCBA temperaturemeasurement			
Communication	CAN			
Certification				
Transportation	UN38.3			
Safety	IEC 62619 , IEC 62040 , IEC 61000			
Country of Manufacture	China			

* Test condition: Max. 0.5C charge/discharge at 25±2°C.

** 50A discharging current sustainable for 30 minutes in off-grid operation.

*** 40A discharging current sustainable for 30 minutes in off-grid operation.

* Max. charge/discharge current derating may occur with changes in temperature and SoC.

* Under specific test conditions.





WARRANTY CONDITIONS

For the Alpha ESS Residential Product Series

Date: 30th Oct 2024



Important Note: Australian Consumer Law

If you have purchased your product in Australia, you should be aware that:

This warranty is provided in addition to other rights and remedies held by a consumer at law.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law.

You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Products

Subject to the terms and conditions detailed below, Alpha ESS provides a voluntary product warranty (**the Warranty**) for the following products (**the Products**):

Li-ion battery unit:

SMILE-BAT-5P/SMILE-G3-BAT-10.1P/SMILE-G3-BAT-10.1P II/SMILE-G3-BAT-10.1P III/ SMILE-G3-BAT-10.1P IV/SMILE-G3-BAT-10.1P V/SMILE-G3-BAT-10.1P VI/SMILE-G3-BAT-4.0S/SMILE-BAT-10.1P/SMILE-BAT-13.3P/SMILE-M-BAT-5P/M4856-P/SMILE-M-BAT-5P/SMILE-M-BAT-5P II/SMILE-M-BAT-5P III/SMILE-M-BAT-5P IV/SMILE-M-BAT-5P V/SMILE-M-BAT-5P VI/SMILE-B3-PLUS/SMILE-B3-PLUS II/SMILE-B3-PLUS III/SMILE-B3-PLUS IV/SMILE-B3-PLUS V/SMILE-B3-PLUS VI/SMILE-BAT-8.2PH/SMILE-BAT-8.2PH II/SMILE-BAT-8.2PH III/SMILE-BAT-8.2PH IV/SMILE-BAT-8.2PH V/SMILE-BAT-8.2PH VI/SMILE-M-BAT-13.9P/SMILE-M-BAT-13.9P II/SMILE-M-BAT-13.9P III/SMILE-M-BAT-13.9P IV including BMS

SMILE5 system including hybrid inverter and batteries

Storion-Smile-B3 system including battery inverter and batteries

SMILE-B3-PLUS system including battery inverter and batteries

SMILE-S5 system including hybrid inverter and batteries

SMILE-B5 system including battery inverter and batteries

SMILE-G3-S5 system including hybrid inverter and batteries

SMILE-G3-B5 system including hybrid inverter and batteries

SMILE-G3-S3.6 system including hybrid inverter and batteries

SMILE-M5-S system including hybrid inverter and batteries

SMILE-M3.6-S system including hybrid inverter and batteries

SMILE-T10 system including hybrid inverter(Smile-T10-HV-INV)and batteries

Scope of Warranty

This Warranty only applies to newly purchased Products that have not been installed for any purposes before.

This warranty only applies to products installed on or after November 1st 2024.

This Warranty is non-transferable except where the Products are installed in a building.

This Warranty will then transfer to any subsequent purchaser of that building or the Products so long as the Products remain installed and the Terms and Conditions of the Warranty are met.

This Warranty only applies where Products have been installed by a properly certified battery installer (SAA accredited) with a valid Alpha Installer ID and where the Products have been installed in accordance with the instructions in the installation manual.

1. Warranty Period

1.1 Product Warranty

Alpha ESS provides 10 years warranty (10 years battery performance warranty for SMILE-BAT-5P/SMILE-G3-BAT-10.1P/SMILE-G3-BAT-10.1P II/SMILE-G3-BAT-4.0S/SMILE-M-BAT-5P/SMILE-BAT-8.2PH/SMILE-BAT-10.1P/SMILE-BAT-13.3P/M4856-P/SMILE-M-BAT-5P/SMILE-M-BAT-5P II/SMILE-M-BAT-5P III/SMILE-M-BAT-5P IV/SMILE-M-BAT-5P V/SMILE-M-BAT-5P VI. The warranty period initiates on the date of installation.

1.2 Performance Warranty

Alpha ESS warrants that the Product retains at least seventy percent (70%) of its Usable Capacity for 120 months from the warranty period initiates.

- The warranty only applies if the Product is installed and operated in one of the following modes in accordance with the specifications and instructions contained within the Manual(s) provided by Alpha ESS:
 - (i) Self-consumption: Storing energy generated by solar and using the stored energy for daily consumption to reduce grid reliance and energy costs.
 - (ii) Time of use: Time-of-Use mode allows a battery to charge from solar or grid during low-rate periods and discharge during high-rate period.
 - (iii) Backup: Charging the battery from the solar or grid and using that stored energy as backup power.
 - (iv) Grid service: Participation of battery systems in a Virtual Power Plant (VPP) program, where they generate revenue by engaging in energy markets, demand response programs, and ancillary services, thereby supporting grid stability and optimizing energy usage.

The precondition of the valid Performance Warranty shall be that:

- The ambient temperature during the operation of the Products shall not fall below -10°C or exceed 50°C.
- The Throughput Energy per kWh Usable Capacity is less than 3.12MWh, which is calculated from the date the battery storage system is installed at the Product Owner's property.

Capacity measurement condition:

Ambient temperature: 25~28°C

Charge/ Discharge method:

1. Discharge the battery with constant current until the battery reaches the End of discharge voltage.
2. Neither charge nor discharge the battery for 2 hrs.
3. Charge the battery with Constant current and Constant charge voltage until reaching the Cut off current.
4. Neither charge nor discharge the battery for 2 hrs.
5. Discharge the battery with Constant current until the Product reaches the End of discharge voltage. Confirm that the discharge current is consistent and calculate the discharged capacity.
6. Calculation formula is: Current Battery Capacity (Ah) = Discharge time × Constant current value.
7. Charge the battery with Constant current and Constant charge voltage until reaching the Cut off current.
8. Current and Voltage measurements are taken at the battery DC side.
9. If the battery has not been used for 3 months, please repeat the charging/discharging process mentioned above three times and select the highest capacity as the test result. Notice: Lay aside the battery for 4hrs between each cycle.

Test value list:

Product Type	End of discharge voltage(V)	Constant charge voltage(V)	Constant current(A)	Cut off current(A)
SMILE-BAT-5P(Used for Smile-B3+, Smile -S5, Smile-B5 series)	44.2	58	56	11
SMILE-G3-BAT-10.1P	88.5	108.9	52.5	5.25
SMILE-G3-BAT-4.0S	88.5	108.9	42	4.2
SMILE-BAT-10.1P	44.2	54.4	100	10.5

SMILE-BAT-13.3P	44.2	54.4	100	28
SMILE-BAT-8.2PH	236	290	32	1.6
M4856-P	47.2	58	56	2.5

2 .Replace or Repair

Subject to the terms and conditions detailed below, Alpha ESS will, at its sole option, repair or replace the Products or any part thereof, if such Products are faulty or defective in manufacture or materials.

Alpha ESS will endeavor to replace any Products which require replacement under this Warranty with products of equivalent appearance, size, and functionality on a like-for-like basis. Replacement of Products may not be brand new but with quality and specification compliant with the Product specifications. Reconditioned products used as warranty replacements will be equal or superior to the replaced product in terms of a combination of factors including date of manufacture, state of health, prior energy throughput and other considerations. Where direct replacement is not feasible, due to technological advancements, Alpha ESS will supply another type of product of at least the same value and standard, although it may be of different size, shape, color and/or capacity. Due to the aging and weathering of Products, particularly when installed external to the house, replacement products are not guaranteed to match the paint finish and colour shade of non-replaced products. Functional products shall not be replaced as a result of any aesthetic differences between the original supplied product and replaced components.

If the Products are replaced within the Warranty Period, the remaining Warranty Period will be automatically transferred to the replacement products.

In respect of valid claims under this Warranty, the end-user will not be charged for reasonable costs associated with the making of a warranty claim, including warranty processing costs, the cost of replacement parts and freight. Reimbursement for necessary and reasonably incurred costs or expenses in making valid warranty claims under this Warranty may be claimed from Alpha ESS. Documentary evidence in support of such a claim will be required.

This Warranty does not cover:

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- Any costs incurred by the end-user or the installer in normal or scheduled maintenance of the Products; or
 - Any other costs such as transportation (other than delivery costs of parts or Products replaced under this Warranty to the original purchaser), travelling and accommodation cost of persons for on-site support etc.;
 - Subject to any law to the contrary, any damage to property, personal injury, direct or indirect loss, any consequential losses or other expenses arising from breach of this Warranty.
 - Electricity costs or unrealized potential solar generation resulting from the Products being inoperable through the period of Product failure to the completion of the Product replacement or repair.
 - Any costs in making the warranty claim, which is invalid under this Warranty.

3. Preconditions for Warranty

This Warranty is subject to the following conditions:

- The Products must have been installed and correctly commissioned by an installer who is properly qualified and has been certified by Alpha ESS. Proof may be required of correct commissioning of the Products (such as a certificate of compliance). Claims for failures due to incorrect installation or commissioning are not covered under this Warranty.
- Products must have their original serial number and rating labels intact and readable.
- Batteries, prior to installation, shall have been stored indoors in a dry and clean environment and met the conditions defined below for storage over Short Periods and Long Periods.
 - a. Short Period: ambient temperature at -20 to 45° C, stored for less than 1 month
 - b. Long Period: the ambient temperature at 0 to 35° C when stored for more than 1 month.
- Battery storage and transport shall have been such that batteries avoided contact with corrosive substances and were kept away from fire and heat sources.
- Due to the characteristics of lithium batteries, the permissible storage duration for batteries should not exceed 180 days.
- This Warranty does not extend to any Products that have been completely or partially disassembled or modified, except where such disassembly is carried out by Alpha ESS.
- The operating temperature during the operation of the Products must not exceed -10° C ~50° C temperature range and the Products shall not be exposed and stored in a temperature higher than 50° C, and shall not be exposed in an installed area exposed to direct sunlight. The Products installation location must be ventilated according to the requirements of the User Manual and Installation Guidance.

- Any warranty claim under this Warranty must meet the requirements set out below in the “Claims Process” section.
- Following the receipt of the replacement Products, the owner of the Products must return the allegedly faulty unit in the same packaging material as the replacement Products. Alpha ESS will supply all labels, documentation and freight details for the return of the allegedly faulty unit. All allegedly faulty units must be returned within 10 (ten) working days of the receipt of the replacement Products.
- In the event that the owner encounters challenges in returning the faulty units, it is suggested that they reach out to the system installer for assistance.
- A qualified installer must be available for the exchange of the Products and re-commissioning.
- The warranty holder, property occupant and product owner shall work in good faith directly with Alpha ESS in order to facilitate, where reasonable and practical, the return of replaced Product and unused non-faulty Products.
- The warranty holder, property occupant and product owner shall work in good faith to support Alpha ESS in attempts to rectify the fault or fault message through telephone support or with direct links via computer and communications technologies such as stable internet, laptops and/or tablets.
- In order to qualify for a replacement unit, the original purchaser or product owner shall first contact Alpha ESS and fulfill the responsibilities under the "Claims Process" section of this warranty.
- The warranty holder, property occupant and product owner shall be aware that solar production and/or energy storage may not be functioning in the case of product failure and shall take all steps to mitigate energy consumption if the effect of the loss of solar production and/or energy storage on the cost of energy supply for the property is of concern. The Warranty does not extend to any energy costs or unrealized solar revenues during any period where the Products may be faulty or non-functioning.
- The Alpha Battery is not designed for serving as the main or backup power supply for life support systems or medical equipment. Alpha reserves the right to refuse service and disclaims any responsibility for products used for these purposes.

4. General Exclusions

This Warranty will not apply to a defect or fault to the extent to which one or more of these conditions arises:

- The warranty period specified above has already expired;
- Incorrect deliveries or incorrect/damaged packing;
- Due to storage, handling, installation (or removal and/or re-installation) or commissioning of the Products other than by instructions provided by Alpha ESS and

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- applicable safety regulations or without reasonable care including installation of the Products which are of an inappropriate size or type for the intended purpose;
- Due to operation, use or maintenance of the Products other than by instructions provided by Alpha ESS, or without reasonable care (including failure to maintain/ clean the Products according to recommendations in instruction/ operation manuals);
 - Due to accidental damage, theft or vandalism, or use of the Products for a purpose or in environmental conditions for which the Products were not designed for or sold, or use of the Products outside the specified or normal operating ranges for such Products;
 - As a result of damage caused by insect or other fauna or flora where the Products were not adequately or reasonably protected from such, for example by way of an insect and pest management program.
 - As a result of changes that occur in the condition or operational performance of the Products due to climate or other environmental influence, foreign material contamination (e.g. dirt, smoke, salt, chemicals and other impurities), water entry, exposure to excessive heat or solvents or because of use of the Products with insufficient ventilation (in particular the maximum temperatures according to the operating manual), exposure to strong vibrations, exposure to a strong magnetic field or damage as a result of Force Majeure events;
 - As a result of repairs, alterations or modifications to the Products which have been performed by a third party not authorised by Alpha ESS;
 - From the use of any spare parts not manufactured, sold or approved by Alpha ESS in connection with the repair or replacement of the Products; or as a result of the interconnection of the Products with products of another manufacturer; or as a result of any other defective or malfunctioning parts in the system into which the Products has been installed;
 - Where the nameplate or serial number of the Products is modified, altered or not readable;
 - When failed to provide the correct the serial number of the products, or the serial number is not registered prior to the warranty claim;
 - Other damages not affecting energy generation and which are of a visual nature (e.g. surface scratching);
 - Continued use of the Products after they are known, or would have been known with regular servicing or to be defective;
 - Any incidental or consequential damages, loss of profits, loss of data or any other indirect damages;
 - Any costs or expenses incurred by the Customer for the procurement of substitute equipment or services;
 - Any attempt to extend or reduce the life of the Products without written confirmation from Alpha ESS, whether by physical means, programming or others;
 - External influences including unusual physical or electrical stress (power failure surges, inrush current, lightning, flood, fire, accidental breakage, etc.);
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- Product damage caused by an external force, force majeure (causes of natural disasters such as unforeseeable, unavoidable and insurmountable objective events, including but not limited to war, civil war, strike, riot or other activities intervened by government, terrorism, war, riots, strikes, unavailability of suitable and sufficient labour or materials and other events which are out of control of ALPHA ESS) or other third parties;
- Defects of Products arising from renewal of national or regional laws or regulations;
- Product failure is not reported to Alpha ESS or to an Authorised Service Partner within ten working days of appearance;
- Use of an incompatible inverter, rectifier, solar optimizer or PCS.

5. Exclusions for Failure to Connect to the Internet

It is required that all Products have Internet or 3G/4G connection for service and monitoring purposes. Where there is a temporary, prolonged or cumulative Internet connection failure:

- Product Owners should inform Alpha ESS as soon as possible of such failure and put in place its measures to monitor the products for defects during such outage period;
- Product Owners should put in place and implement, where possible, processes to collect and save system and product data locally so that the data produced by the system during the period of internet outage is retained, and promptly send on such data to Alpha ESS as soon as the internet is reconnected;
- Alpha ESS shall not be responsible for and the warranty shall not cover any failure to provide product or system updates that had been planned to occur remotely by way of internet connection during such period of the outage;
- Alpha ESS shall not be responsible for and the warranty shall not cover any resultant failure to remotely monitor/pick up on the system or product defects or irregularities;
- Any defects found and reported during or in respect of a period when there was an internet outage should be accompanied by sufficient evidence (including photographs where relevant) to enable sufficient investigation into the defect and, where possible, show that such issue was not caused by the internet outage itself.
- Each time a warranty claim is made against the Products that have no internet connection, the owner of the Products is obliged to organise a qualified person to conduct an on-site inspection and data collection under the instruction of Alpha ESS.
- Alpha ESS will monitor the performance of the Products and inform the owner of the Products via the internet of any defects identified during the Warranty Period, provided that the Products are connected to the internet. Otherwise, once becoming aware of a defect or potential defects in the Products during the Warranty Period, the Products' owner shall inform Alpha ESS as soon as is reasonably practicable.

6. Non-Applicability of Warranty Claim

In cases where a warranty claim is determined by Alpha to be invalid, the costs incurred by Alpha ESS or Alpha ESS Authorised Service Partners due to this non-applicability of a warranty claim shall be covered by the Product Owner.

7. Out of Warranty

As for the service for the Products out of Warranty, Alpha ESS agrees to provide certain after-sales services to the Product Owner upon the written request addressed to Alpha ESS or an Alpha ESS Authorised Service Partner, and all costs and expenses which include but are not limited to the materials, parts or labour costs, shall be borne by Product Owner. In this case, the Product Owner shall provide a detailed description of defects so that Alpha ESS or Alpha ESS Authorised Service Partner can detect whether such defects can be rectified or not. For the avoidance of doubt, in no event will Alpha ESS be liable for the service out of warranty, and this Section 7 will not constitute the promise of Alpha ESS to provide such service out of warranty.

8 . Warranty Restriction

Unless otherwise specified herein, to the extent permitted by applicable law, the Warranty document and above remedies shall be exclusive and replace all other guarantees and remedies, oral or in writing, expressed or implied. To the extent permitted by applicable law, Alpha ESS expressly reject any legal or implied warranty, including but not limited to warranties of merchant ability, fitness for a particular purpose and hidden or potential defects. If Alpha ESS cannot abandon the implied warranty as prescribed by applicable law or the guarantee specified by applicable laws, all of such guarantees and warranties shall be limited to the implied warranty as prescribed by applicable law or the scope within applicable laws and shall be under mandatory application according to the applicable law. No distributor, agent or staff of Alpha ESS and/or Alpha ESS Authorised Service Partner is authorised to make any revision,

extension or addition to the Warranty. The legality and enforceability of the remaining clauses herein shall not be affected or damaged if any of the clauses herein are adjudged to be illegal or unenforceable.

Unless otherwise specified herein, to the maximum range permitted by applicable law, Alpha ESS will not be liable for any direct, indirect, special, accidental or derivative losses caused by the purchase or use of Products and its system, including but not limited to the loss of use, loss in income, the actual or expected loss in revenue (including contract revenue losses), loss of the use of money, loss of anticipated savings, loss of business, loss of opportunity, loss of goodwill, loss of reputation, personal injury or damage loss, or the indirect or derivative loss or damage (including any expense arising from the replacement of equipment and property, resumption of production, etc.) caused by any reasons.

ALPHA ESS'S LIABILITY FROM ANY CAUSE WHATSOEVER SHALL IN NO EVENT EXCEED THE AMOUNT OF THE PURCHASE PRICE PAID BY THE PRODUCT OWNER TO ALPHA ESS, EITHER DIRECTLY OR INDIRECTLY, FOR SUCH PRODUCT GIVING RISE TO THE LIABILITY. EXCEPTED FROM THIS IS LIABILITY ON THE GROUNDS OF CULPABLE INJURY TO LIFE, PHYSICAL INJURY OR INJURY TO HEALTH AND THE MANDATORY LIABILITY FROM INTENT OR GROSS NEGLIGENCE.

9. Dispute Resolution

In case of any dispute in terms of warranty claims, a first-class international testing institute shall be entrusted by Alpha ESS and the Product Owner upon mutual consent to provide third-party verification and comments. All fees and expenses shall be borne by the party that demanded such verification procedure unless otherwise agreed.

The courts of NSW, Australia shall have non-exclusive jurisdiction for further disputes about a warranty claim arising from this Warranty.

In case of a judicial assertion, the Alpha ESS Authorised Service Partner is not authorised to send or receive legal documents.

This Warranty shall be governed and construed by the laws of the State of New South Wales and the Commonwealth of Australia, in that order, excluding the Convention on Contracts for the International Sale of Goods.

10. Claims Process

If any Products fail within the Warranty Period, the owner of the Products must stop using the Products, or the system in which the Products are installed as the case may be, by

isolating the Products from any energy source, and make a claim as soon as possible following all instructions provided by Alpha ESS, or the resellers from whom you have purchased the Products.

To make a warranty claim under this voluntary warranty, please contact the resellers from whom you have purchased the Products, or contact Alpha ESS directly by the customer feedback system over the online monitoring platform:

<https://cloud.alphaess.com/createComplaint> or by email at techsupport@alphaess.au.

When contacting Alpha ESS by email, please have the following information to hand:

- Your name, address, postcode and a telephone number where you can be contacted
- The model name and serial number of the Products
- Proof of purchase with date and address of the vendor. Installation date and installation address
- Contact details of the installer
- Photos of the Battery Installation location, displaying the Product and the surroundings for greater than 1m, and photos of the Meter Board and any relevant Sub Boards
- Details of any associated Solar installation connected to a non-Alpha inverter (Commonly known as ac-coupled solar)
- A complete and detailed list of observed faults and other information which could help with the analysis of the fault (e.g. any videos and photos etc.)

ALPHA ESS aims to rectify genuine quality problems as a priority which is generally achieved by investigating why defective products have failed and by introducing immediate corrective action measures to prevent re-occurring warranty failures. It is therefore critical that all claims under this Warranty are promptly submitted to Alpha ESS as soon as the Products fail, and in any event, within 4 weeks of knowledge of the matter of event giving rise to the claim. No consideration will be given to claims under this Warranty that are made after this period.

The original installer is obliged to assist in the replacement and related after-sales actions. Reimbursement for necessary and reasonably incurred costs or expenses in making valid warranty claims under this Warranty may be claimed from Alpha. Documentary evidence in support of such claim will be required.

11. Contact Details

This Warranty is offered by Alpha ESS Australia PTY. Ltd.

Manufacturer Details: Alpha ESS co., Ltd.

Address: JinHua Road 888, High-Tech Industrial Development Zone 226300 Nantong City,
Jiangsu Province China

Tel: +86 513 8060 6891

Australian Importer Contact Details: Alpha ESS Australia PTY. Ltd.

Address: Unit 8/15-21 Gibbes Street, Chatswood, NSW, 2067

Tel: 02 9000 7676

12. Miscellaneous

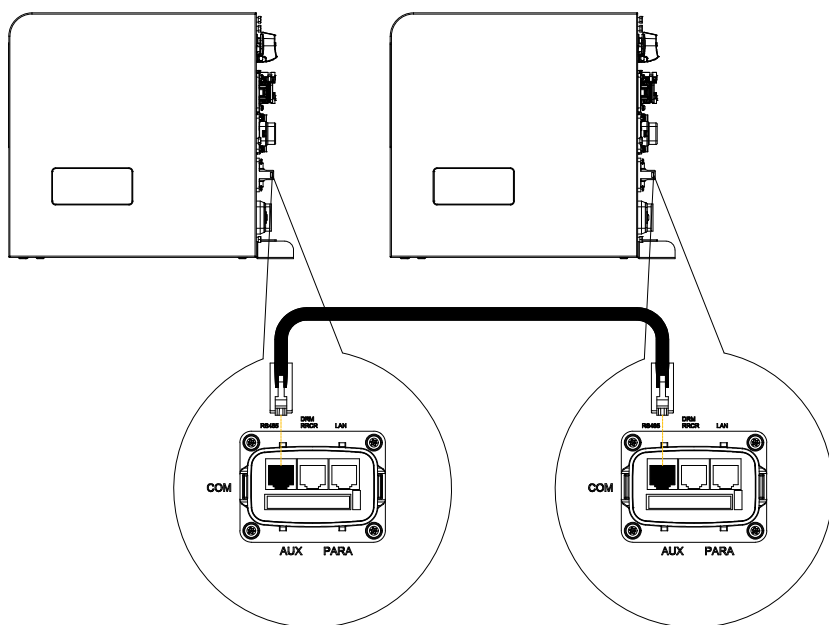
This Warranty shall form part of the purchase contract in respect of the Products and shall be complied with by all parties involved.

1 Overview

- 1.1 This installation manual is designed to guide installers on how to use the new parallel system solution to complete the parallel installation. Please follow the steps below to complete the installation and commission.
- 1.2 The batteries connecting to the same inverter must be connected together. The battery clusters connecting to each inverter must not be connected together.
- 1.3 The backup circuit must not be connected in parallel.
- 1.4 At most, 2 inverters can be connected in parallel.

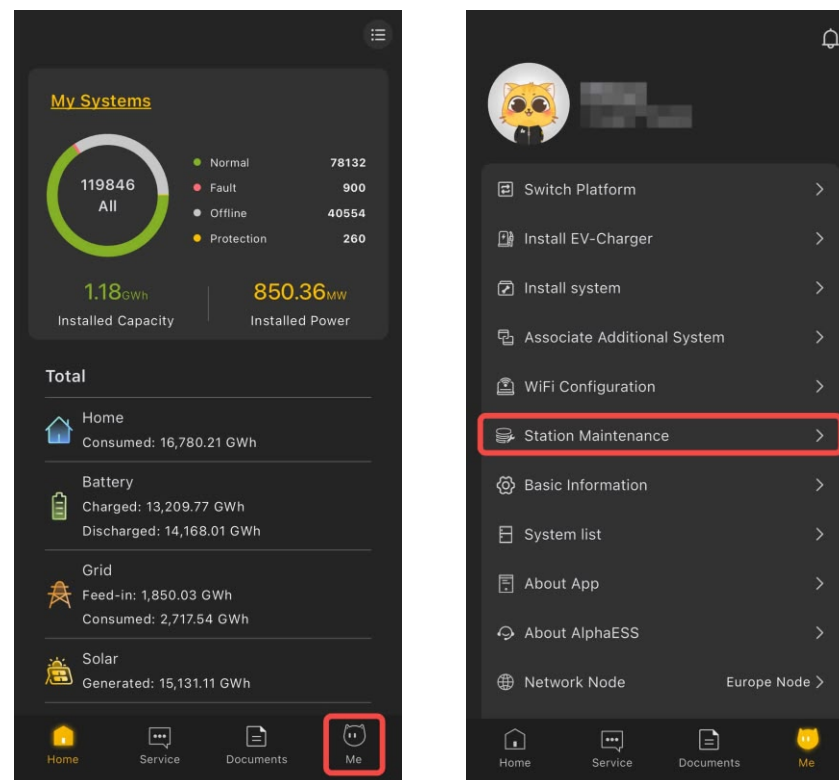
2 Installation

- 2.1 Use the same procedure to set up the host system as you would for a single inverter.
- 2.2 Use the same procedure to set up the follower system as you would for a single inverter, but note CT or meter is not necessary.
- 2.3 Connect the RS485 ports of the two inverters using a T568B straight-through cable.



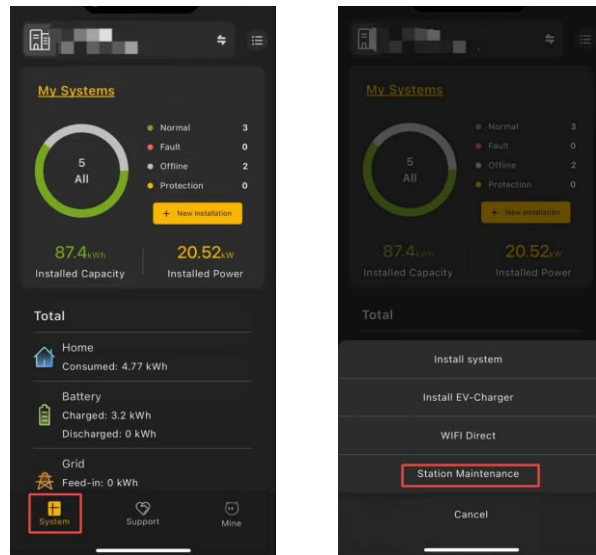
3 Commission

- 3.1 Use the same procedure to power on and complete the commission for host system as you would for a single inverter.
- 3.2 Use the same procedure to power on the follower system as you would for a single inverter. Note only the network configuration is necessary, you can skip the remaining parameters setting.
- 3.3 Parallel setup
 - 3.3.1a For AlphaESS APP, please click "Me" at the bottom right of the page and then click "Station Maintenance".



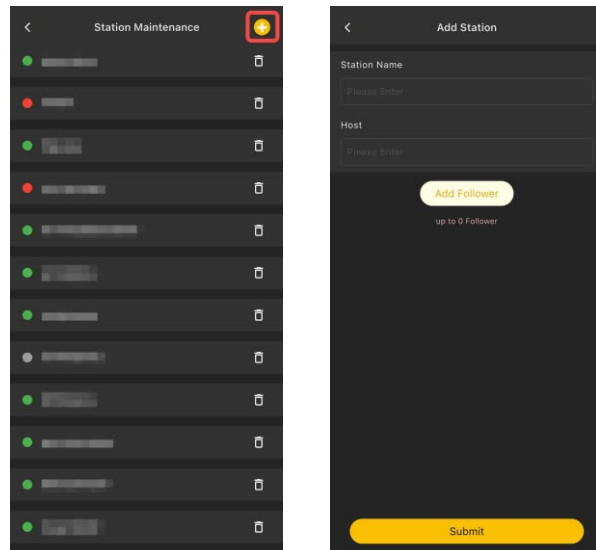
For AlphaESS APP

3.3.1b For Partner APP, please click "System" at the bottom left of the page and then click "New Installation" - "Station Maintenance".

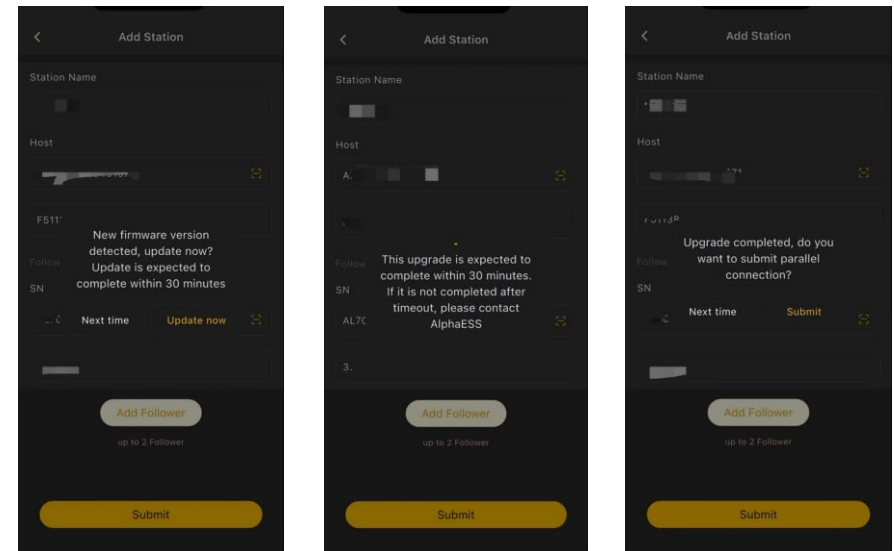


For Partner APP

3.3.2 Please click "+" in the upper right corner, enter the station name, the sn and check code of the host and follower inverters, and then click "submit".



3.3.3 Please follow the instructions to upgrade the firmware and complete the parallel setup.



3.4 Please return to "Home" (for AlphaESS APP) or "System" (for Partner APP) and click "My Systems" to enter the system list, then click the change icon in the upper right corner, and then you can see your station.



For AlphaESS APP

For Partner APP

