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Lithium-ion Battery Module

5 Years Warranty Letter

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Reviewed	hv:	

FnS Power Technology

Inc.

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FnS Lithium-ion Battery Limited Warranty

1. Limited Warranty Coverage

This limited warranty (hereinafter "Warranty") specified below applies to The FnS Power lithium iron phosphate Batteries as manufactured and sold by FnS Power Technology Inc. (hereinafter "FnS Power or Seller") to Authorized Reseller, installer or distributor (hereinafter "Buyer").

The Performance Warranty for the Products including accessory is Warranted (the "Limited Warranty") by FnS Power, against manufacturing defects in materials and workmanship for a period of five (5) years full replacement (the "Limited Warranty Period") or 4000 cycles at 80%DOD, whichever comes first.

2. Performance Warranty (Standard)

- (1) The battery system is operated under normal use followed by specification and manual provided by FnS Power.
- (a) The ambient temperature during the operation of the Products shall not fall below 0°C or exceed 50°C, and altitude not exceeding 3000m.

(b) Recommended charging and discharging parameters

Battery Module	SSIF2P15S48100C
High Battery Cut Off Voltage	54.0V
Low Battery Cut Off Voltage	47.5V
Max Charge Current	50A
Max Discharge Current	50A

Table 1-Recommended parameters

(2) Recommended operating parameters of battery for 4,000 Cycles:

Operating temperature range: 32F to 122F (0°C to 50°C).

Recommended operating parameters of battery for 6,000 Cycles:

Operating temperature range: 50F to 104F (10°C to 40°C).



At the end of cycle life capacity is equivalent to 80% retained capacity.

3. Limitation of Warranty Scope

This Limited Warranty applies only to FnS Product:

- (a) Installed in covered locations including (US/Canada);
- (b) Purchased from FnS Power or authorized distributors, dealer or reseller;
- (c) Installed by a licensed professional or authorized installer;
- (d) The warranty date is calculated from the factory date of FnS Power;
- (e) Within the limited warranty period;
- (f) Does not cover the cost of installation, removal, shipping or reinstallation;
- (g) Does not cover faults in design or installer error such as reverse polarity or misuse of system wide equipment or inaccurate programming of all ancillary equipment in your system. Failure to comply with the installation and operating parameters in the Installation Manual will avoid the Warranty.

4. Warranty Obligations

- (1) The liability of FnS Power under this Limited Warranty shall be limited to the repair or replacement of the FnS Power Product, at FnS Power's sole discretion. If the FnS Power Product are found to be defective as a result of any manufacturing defect in materials and workmanship during the Limited Warranty Period, FnS Power will, at its sole discretion either (i) repair the FNS Power Product or (ii) replace the FNS Power Product or (iii) Replace the Product with a similar FnS Power Product.
- (2) If a FnS Power Product is replaced, the returned FnS Power Product will become the property of FnS Power and must be sent to FnS Power free of any third-party ownership claims.
- (3) The Warranty period of any repaired FnS Power Product or its replacement is twelve (12) months from the date of shipment from FnS Power, or the remaining term of the Limited Warranty Period, whichever is greater. In any event, the replacement shall not justify the renewal of the Term of Performance Warranty.



(4) In the event FnS Power determines that an alleged product or services defect did not exist or, if existed, was excluded from FnS Power's liability by FnS Power's Terms & Conditions, Customer shall reimburse FnS Power for all costs and expenses incurred by FnS Power as a result of FnS Power's attempt to repair, replace or re-perform.

5. Exclusion of Warranty

- (1) Limited Warranty does not cover faults due to:
- (a) Improper battery bank sizing;
- (b) Improper battery wiring and/or installation;
- (c) Incorrect inverter and/or charge controller settings;
- (d) Fns power products paired with incompatible equipment;
- (e) Other indications of damage due to improper system operation and/or installation.
- (2) This Limited Warranty does not cover damages that occur due to:
- (a) Transport damage;
- (b) Installation or commissioning by any person who is not an authorized, certified dealer or authorized, certified installer:
- (c) Negligent, reckless, or willful conduct on the part of an owner, authorized, certified dealer or authorized, certified installer, or any other third party;
- (d) Failure to observe the user manual, maintenance regulations and intervals;
- (e) Modifications, changes, or attempted repairs, except as conducted by an authorized, certified dealer or authorized, certified installer;
- (f) Incorrect use or inappropriate operation, storage, commissioning, or modification of the covered products;
- (g) Insufficient ventilation of the covered product;
- (h) Failure to observe the applicable safety regulations;
- (i) Any product whose serial number has been altered, defaced, or removed;
- (g) Continually used and maintained in temperatures below 0°C or above 32°C;
- (k) The product continually exposed to a temperature exceeding 50 ℃;
- (I) Altitude installed above 3000 meter;



- (m) Operation in a non-intended use, or a use which exceeds the recommended or permitted limits or loads of the fns power product;
- (n) Use of an incompatible inverter, charge controller, rectifier or pcs;
- (o) Lightning, flood, earthquake, fire, extreme cold weather, or other events outside the reasonable control of fns power;
- (p) Force majeure, including but not limited to the events listed above;
- (q) Acts of god or theft.
- (3) This Limited Warranty does not cover cosmetic defects that do not directly influence energy production, or degrade form, fit, and function, nor does it cover noise or vibration that is not excessive or uncharacteristic and does not impact the performance of the Covered Products.
- (4) FnS Power is not responsible for inspection to product by a third party other than FnS Power or FnS Power's agent approved by FnS Power.
- (5) In no event will FnS Power be held responsible or liable for any personal injuries arising out of or connected with the use or misuse of the Covered Product, or for any other damages, whether direct, indirect, punitive, incidental, or consequential; even if FnS Power has been advised of such damages.

6. Warranty Claims

- (1) To request Warranty service, your Installer/Distributor/Supplier must contact FnS Power Technical Support in writing within the Limited Warranty Period. FnS Power reserves rights to investigate battery operation conditions and make conclusion. Either FnS Power or its authorized representative will attempt to troubleshoot the FnS Power Product at the Original Use Location to determine whether the FnS Power Product are defective. If FnS Power determines that Warranty service is required, Technical Support will assist in getting authorization for a Return Material Authorization ("RMA") number and instruct you how to submit the RMA.
- (2) Claims under this Warranty must be made by notifying the Authorized Reseller,



distributor or installer from whom the Product was purchased. For a Warranty Claim to be processed, it must include following items:

- (a) Proof of the original purchase invoice for the original FnS Power Product;
- (b) Description of the alleged defect from authorized service center;
- (c) The relevant Product's module number, serial number and the initial installation date.

7. Important Notices

- (1) Circuit Breakers, Disconnects and Fuses should be employed throughout several points of a Power storage and generation installation to effectively isolate and protect all components of the system to safeguard against faults, short circuits, polarity reversals or a failure of any component in the overall system. Fuses, breakers, wire ratings and values should be determined by established standards and evaluated by certified electricians, licensed installers, and regional code authorities. Although each FnS Power Lithium Battery contains an internal BMS with circuitry that protects the Lithium Ferrite Phosphate cells from overcharge, over-discharge and excessive load amperage, the FnS Power Lithium Batteries must always be installed with a charge controller and the appropriate settings to protect the FnS Power from open PV voltage and other high voltage charging sources. The FnS Power Lithium Battery Management System (BMS) alone will not protect the FnS Power Lithium batteries from these extreme electrical phenomena. Failure to adhere to installation protocol will void the Warranty.
- (2) FnS Power's products are designed to meet stated U.S. safety standards and regulations. Because local safety standards and regulations vary significantly, FnS Power cannot guarantee that products meet all applicable requirements in each locality. Buyer assumes responsibility for compliance with such safety standards and regulations in the localities in which a product will be shipped, sold or used. Before purchase and use of any product, Buyer shall review the product application, and national and local codes and regulations, and must verify that the use and installation of the product will be in compliance therewith.
- (3) Only use a FnS Power approved LFP charger if ancillary charging is required before

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installation, testing, or troubleshooting. Failure to use a FnS Power approved LFP charger

will damage the battery and void the warranty.

(4) Improper sizing and/or charge parameters can cause the battery to malfunction. It is

necessary to both correctly size a system and enter the correct charge parameters into your

charge controller and/or inverter. Please see Product Instructions for these topics. Failure to

check these may result in a dysfunctional system.

(5) If there is any inconsistency between this Limited Warranty and any other agreement or

statement included with or relating to FnS Power Product or services, this Limited Warranty

shall govern. If any provision of this Limited Warranty is found invalid or unenforceable, it

shall be deemed modified to the minimum extent necessary to make it enforceable and the

remainder of this Limited Warranty shall remain valid and enforceable according with its

terms.

To obtain technical support or Warranty service, please contact us as follows:

Address: 1275 Lincoln Avenue, San Jose, CA95125, USA

Phone: +1 408 307 5780

Email: admin@fnspower.com

FnS Power Technology Inc.

03-20-2021

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