EG4® 18kPV
HYBRID INVERTER
FIRMWARE CHANGELOG

Version: FAAB-1717   Date: 2024-01-18

Changelog (Same as fAAB-1717) based on FAAB-1616.

- New feature: On-grid load balance and PV Sell for parallel system.
- New feature: Parallel settings synchronization.
- Flicker optimization: Voltage drops when heavy load starts.
- Optimization for generator application, such as transfer time, warm up, cool down, exercise, and quick start&stop remotely.
- Issue fixed: Generator End volt/SOC setting not work.
- Bug fixed: Cannot exit EPS mode when RSD active.
- Raise default value of start&stop volt/SOC for AC couple. If PV inverter does not derate power at over frequency, customer can set lower value to disconnect it by generator relay.
- Enable Share Battery Function by default for US version.

Version: FAAB-1616   Date: 2023-10-20

Changelog (Same as fAAB-1616) based on FAAB-1312.

- Optimization on frequency shifting for AC couple function has been done.
- Optimization on Zero export function: Stop frequently switching between PV charge+Grid on and PV+Battery grid on modes.
- 3phase (208Vac/120Vac) parallel solution has been supported: 2*208V 3phase parallel and 3*208V 3phase parallel are supported.
- Optimization on EPS transfer time has been done.
- RSD active signals to BMS have been added: Battery needs to support the respond to RSD demand too.
- The setting range of Generator rated power has been changed to 255kW max and 1kW min.
- Logics optimization: Once "Fast zero export" function is enabled, "Grid sell back" function won't take effect.
- Refined parameter adjustments for Battery control: OnGrid cut off VOLT form (40-52V) to (40-56V); AC Charge Start Volt from (38.5-52V) to (40-57V); AC Charge End Volt from (48-59V) to (42-59V); Gen Charge Start Volt from (40-59V) to (40-57V); Gen Charge End Volt from (40-59V) to (42-59V); AC Couple Start Volt from (start-59V) to (42-59V).
- New Feature for LCD display: "Connect in xxxs" for the waiting time to on-grid mode will be shown at the top line of the home page.
- Logics optimization on Generator dry contact control: Warming up the generator for 2 minutes before entering charge mode and cooling down the generator for 2 minutes before cutting it off.
- Optimization on voltage drop of EPS output while connecting or disconnecting with heavy load has been done.
- Logics adjustment: When forced discharge function is enabled, AC coupling power will prioritize exporting to grid instead of going to AC charge mode.
- Logics adjustment: When PV energy is weak, to prevent switching PV grid on mode frequently with high frequency relay clicking noise, the time delay to enter another check changes to 2 seconds.
- New Feature: System charge end SOC: 0-255%, VOLT: 40-59V.

Version: FAAB-1312   Date: 2023-08-16

Changelog (Same as fAAB-1312) based on FAAB-1010.

- Optimized sure power and addressed voltage drop concerns when operating in EPS mode.
- "PV sell to grid" function is supporte. Note that it's not yet available for parallel systems.
- Refined parameter adjustments for LUMA Grid regulation.
- With firmware version FAAB-1010, enabling the "run without grid" function won't activate generator dry contact logic.
- Resolved EPS overload triggers from both total EPS voltage and split-phase voltage.
- Improved control to prevent "BUS voltage High" issue when operating in AC couple mode.
- Enabled RSD control synchronization in parallel systems.
- Implemented "strict zero export". When PV and battery energy suffice for loads, the inverter won't exchange energy with the utility grid.
- Modified AC coupling input recognition, treating it as PV input with equivalent priority as integrated PV power.
- In previous firmware FAAB-1010 and with fast zero export active, the inverter won't switch to PV charge mode when battery energy is low.
- Improved surge capacity: For power levels between Pn and 1.16Pn, 10 minutes, and between 1.16Pn and 1.3*Pn, 5 minutes.
- Default settings for Lead Acid mode include a charge voltage of 55V and charge/discharge current limitation of 0.5C.
- Enhanced generator quick start functionality.

Version: FAAB-1010   Date: 2023-06-30

Changelog (Same as fAAB-1010/ eAAB-1010/ EAAB-1010) based on FAAB-0D0E.

- Enlarged the grid sell back power limitation, if power limitation is higher than 200%, then real limitation will be 1000% max.
- Peak-shaving logic optimization.
- Fortress battery protocol optimization, working in lead-acid mode where is communication failure issue.
- AC Charge according to SOC or VOIT could be supported in this firmware version.
- Octopus charge function is supported.
- To avoid relays clicking on and off frequently due to grid fluctuation, a return value has been added in this firmware version.
- Hina battery protocol is supported in this firmware version.
- Grid regulation changes: Hawaii changed to HECO and added KIUC grid regulation.
- Battery capacity could be shown in the LCD display.
- Optimization on AC coupling function: AC charge and battery discharge will be seamless switching way.
- Fans control logic optimization to reduce fan noise.

Version: FAAB-0D0E   Date: 2023-05-12

Changelog (Same as fAAB-0D0E/ eAAB-0D0E/ EAAB-0D0E) based on FAAB-0C0D.

- Fixed the logic issue when PV energy is low, the inverter would fail to switch work mode from PV charge to battery discharge.
- Optimized charge logic of AC coupling input and maximized the use of AC coupling charge.
- Optimized the logic of charge limit in AC charge mode.

Version: FAAB-0C0D   Date: 2023-04-13

Changelog (Same as fAAB-0C0D/ eAAB-0C0D/ EAAB-0C0D) based on FAAB-0C0C.

- Adjusted Control logic of Aging test in Luxpower factory.

Version: FAAB-0C0C   Date: 2023-04-03

Changelog (Same as fAAB-0C0C/ eAAB-0C0C/ EAAB-0C0C) based on FAAB-0B0B.

- Adjusted Control logic of Aging test in Luxpower factory.

Version: FAAB-0B0B   Date: 2023-03-28

Changelog (Same as fAAB-0B0B/ eAAB-0B0B/ EAAB-0B0B) based on FAAB-0A0A.

- CT direction could be corrected remotely and individually in 3phase parallel system.
- Non battery shared mode: Current limitation will depend on individual battery banks.
- Fixed discharge configuration in LCD: In the previous version, discharge power needed to be configured twice to take effect and this bug has been fixed in new version.
- Modified Hawaii Grid reguration: QV curve.