KIT CONNECTION GUIDE · IN ENGLISH

Kit Aninerel ANL-4200T 4.2 kW 24 V + EKPAOWE 25.6 V 100 Ah 2.56 kWh

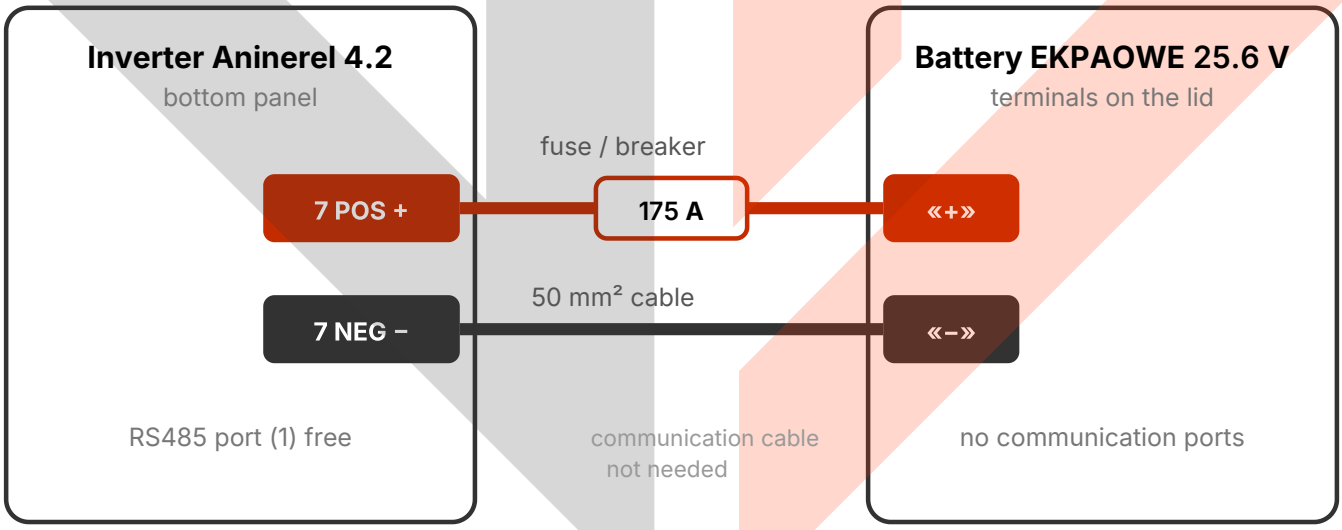
What connects to what, in which order to switch on and what to set in the inverter

Kit contents

	Inverter Aninerel 4.2 kW	Battery EKPAOWE
What it is	Hybrid inverter 4.2 kW, 24 V, Wi-Fi (ANL-4200T-24L-W-PRO)	LiFePO4 (8S), 25.6 V 100 Ah
Power / energy	**4.2 kW**	**2.56 kWh;** BMS approx. **100 A (≈** 2.5 kW)
Battery voltage	**24 V**	**25.6 V**
Charging current	up to 100 A (program 02, default 60 A)	recommended up to **50 A**
BMS communication	RS485 port (1) is **not used**	**none:** only “+” and “–” terminals
Battery protection	fuse or breaker, typical current **175 A**	built-in BMS

Important about power. The continuous power from the battery is limited by its BMS: according to the product card, approx. **100 A,** i.e. about **2.5 kW** (the exact value is on the case label), while the inverter is rated for 4.2 kW. When the inverter runs on the battery only, keep the load within these limits. The inverter can deliver full power when there is grid or solar power.

Connection diagram



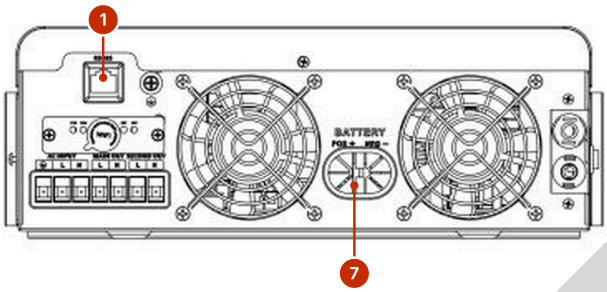
Number 7 is the BATTERY POS + and NEG – terminals on the inverter’s bottom panel, 8 is the ON/OFF switch on the side wall (numbers as in the figure on the next page and in the inverter manual). **The inverter has no reverse polarity protection.** Connect the grid, loads and solar panels according to the inverter manual.

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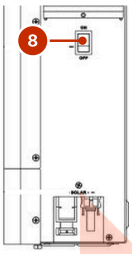
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Where these connectors are

view from below



side wall





Inverter: manual figure: underneath, the BATTERY POS + / NEG – terminals (7) under the bottom cover; on the side wall, the ON/OFF switch (8). The RS485 port (1) is not needed for this kit.

Battery: "+" and "–" terminals on the top lid, polarity marked on the case. There are no communication ports to the inverter.

Connection procedure

1. The inverter is switched off with the ON/OFF switch (8); the fuse / breaker on the battery cable is off.
2. Remove the inverter's bottom cover. Crimp lugs onto the 50 mm² cables.
3. Negative cable: battery "–" terminal → inverter **NEG –** terminal (7).
4. Positive cable via a **fuse or breaker** (typical current 175 A per the manual): battery "+" terminal → inverter **POS +** terminal (7). Tighten the terminals to 4–6 N·m. Check the polarity with a tester: there is no reverse polarity protection.
5. Refit the bottom cover, switch on the fuse / breaker, then the inverter with the ON/OFF switch (8).
6. Set up the inverter according to the table below. Do not connect a communication cable: this battery does not have one.

Inverter settings for this battery

Item	What it is	What to choose for this kit
05	Battery type	**LIb —** lithium battery without communication (default AGn); the manual recommends the LIb factory values for such a battery
26	C.V charge voltage	**28.2 V (**factory for LIb), no higher than the 28.4 V recommended for the battery
27	Float voltage	**28.2 V (**factory for LIb), equal to program 26, as the manual recommends
31	Main output cut-off	**25.9 V (**factory for LIb), above the battery cut-off of 24.0 V
12	Switch to grid (SbU / SOL)	**26.0 V (**factory for LIb); not lower than cut-off + 2 V
02	Max. charge current (solar + grid)	**50 A —** no more than the battery charge current (default 60 A)

How to enter the menu: hold ENTER for 3 s, use UP / DOWN to select a program, ENTER to change, UP / DOWN for the value, ENTER to save, ESC to exit. According to the manual, make the settings when the inverter is not supplying voltage to the output (only the display is lit), and restart the inverter after setting up.

No BMS communication. The battery has only "+" and "–" terminals, so in program 05 do not select **LI2** or **LI4:** those types are for batteries with an RS485 cable. On this model, program **31** switches off the main output, while program 29 (factory for LIb 25.0 V) only switches off the second output. If you want to use more capacity, program 31 can be lowered to **24.0 V (** the recommended battery cut-off); then program 29 must be lower than 31, and program 12 not lower than 26.0 V (31 + 2 V according to the manual).

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