

CAN-GO X

Intelligent control for Huawei and Eltek telecom rectifiers with Home Assistant support

Touchscreen CAN controller for Huawei R48xx and Eltek Flatpack2 series rectifiers, especially for solar battery charging and off-grid systems.



CAN-GO X with a Huawei rectifier, USB-C power and CAN communication.

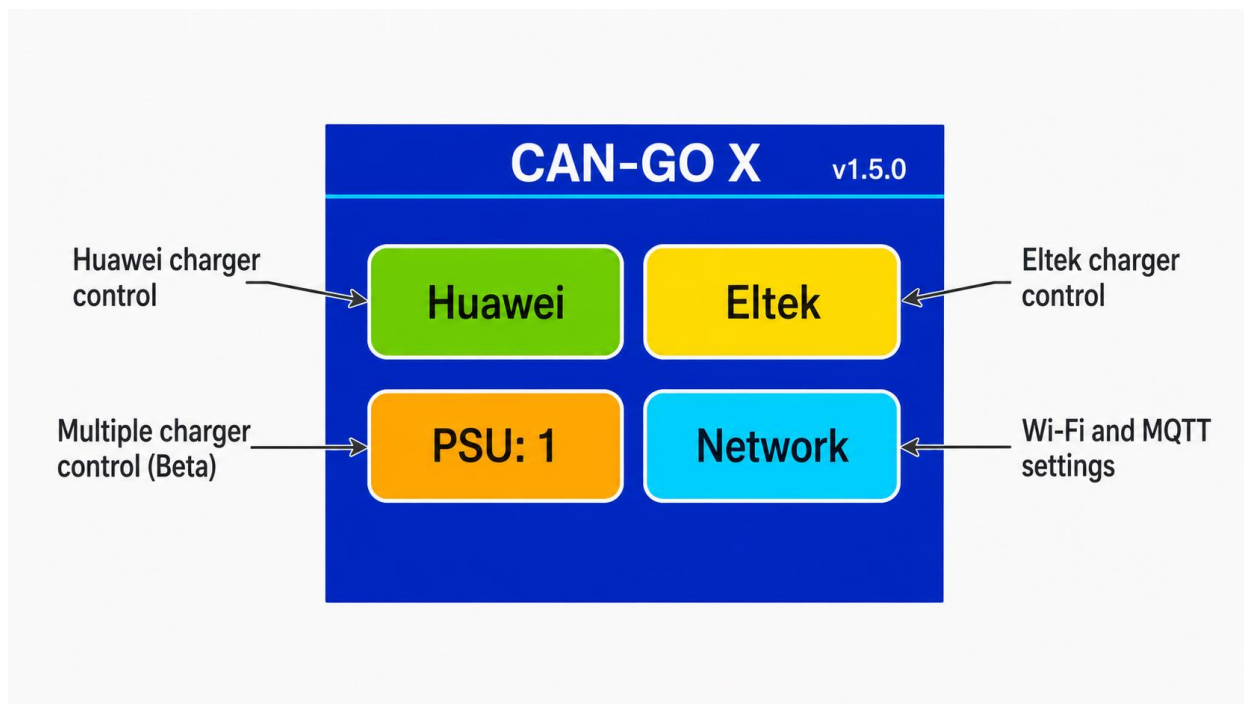
1. What is CAN-GO X for?

After power-up the main menu is shown.

- Huawei and Eltek rectifier selection directly from the main menu.
- Output voltage and current limit can be adjusted on the touchscreen, over MQTT, or from Home Assistant.
- Both PSU families support a 20-100% current-limit range.
- Huawei Soft OFF: the rectifier hibernates and removes the output voltage.
- Eltek CHG OFF: Eltek does not support true hibernation, so the switch lowers the voltage to the 42 V minimum; at this level the battery no longer charges and current stops flowing.
- A browser-based web view is available from the device IP address on the local network.
- WiFi / MQTT connection, Home Assistant integration and live status values.

2. Main menu: PSU selection and network settings

After power-up the main menu is shown. Select Huawei or Eltek control, the prepared multi-PSU mode, or Network for WiFi and MQTT settings.

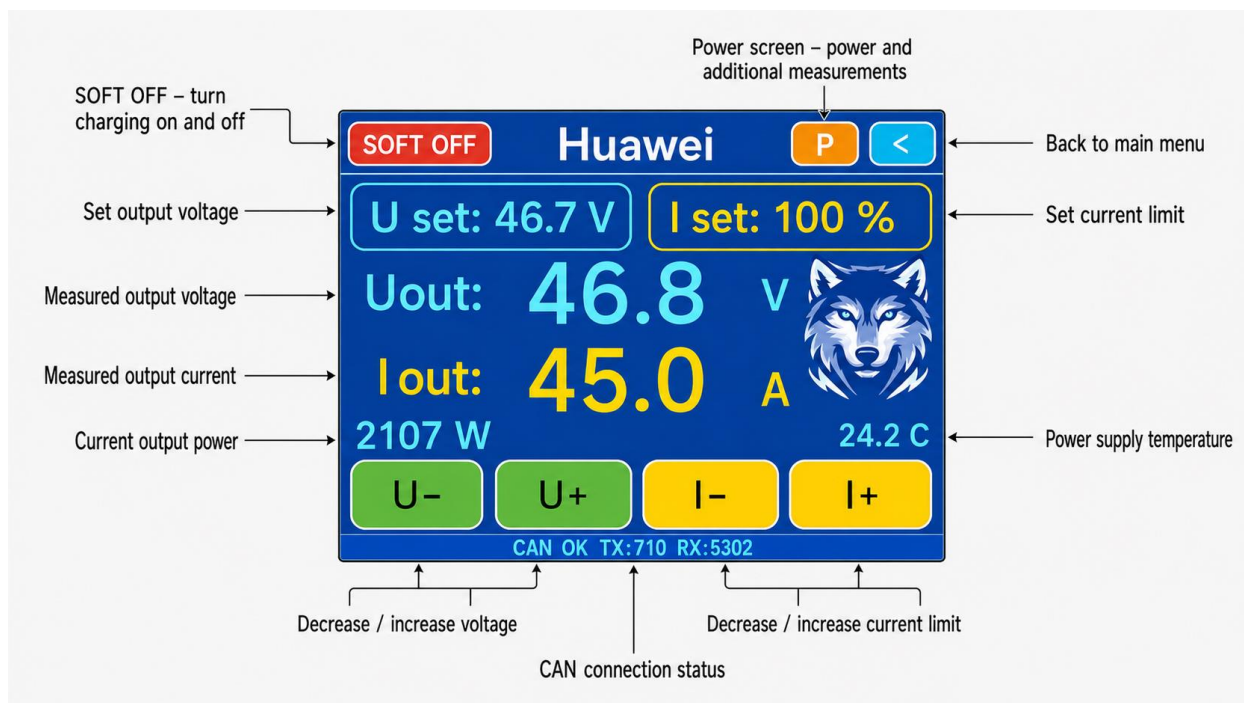


Main menu: Huawei, Eltek, multi-PSU mode and Network settings.

3. Using the main control screen

The main control screen shows configured and measured values at the same time. U-/U+ changes voltage, I-/I+ changes current limit. P opens the power screen, and the top-right arrow returns to the main menu.

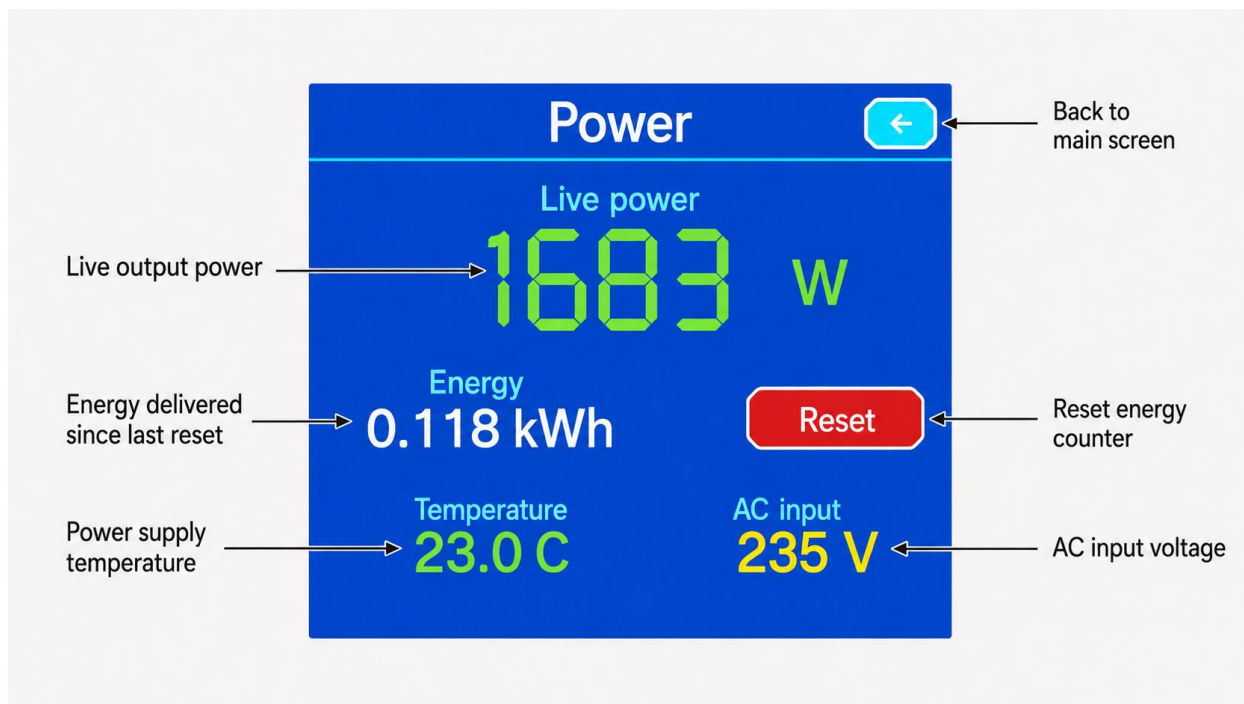
On Huawei, Soft OFF puts the rectifier into hibernation and removes the output voltage. On Eltek, CHG OFF is not true hibernation: the controller lowers the voltage to the 42 V minimum, where the battery no longer accepts charging current.



Main control screen: configured and measured voltage, current, power, temperature and Soft OFF / CHG OFF.

4. Power screen

The power screen shows instant output power, accumulated energy, PSU temperature and AC input voltage in large format. The Reset button clears the energy counter.

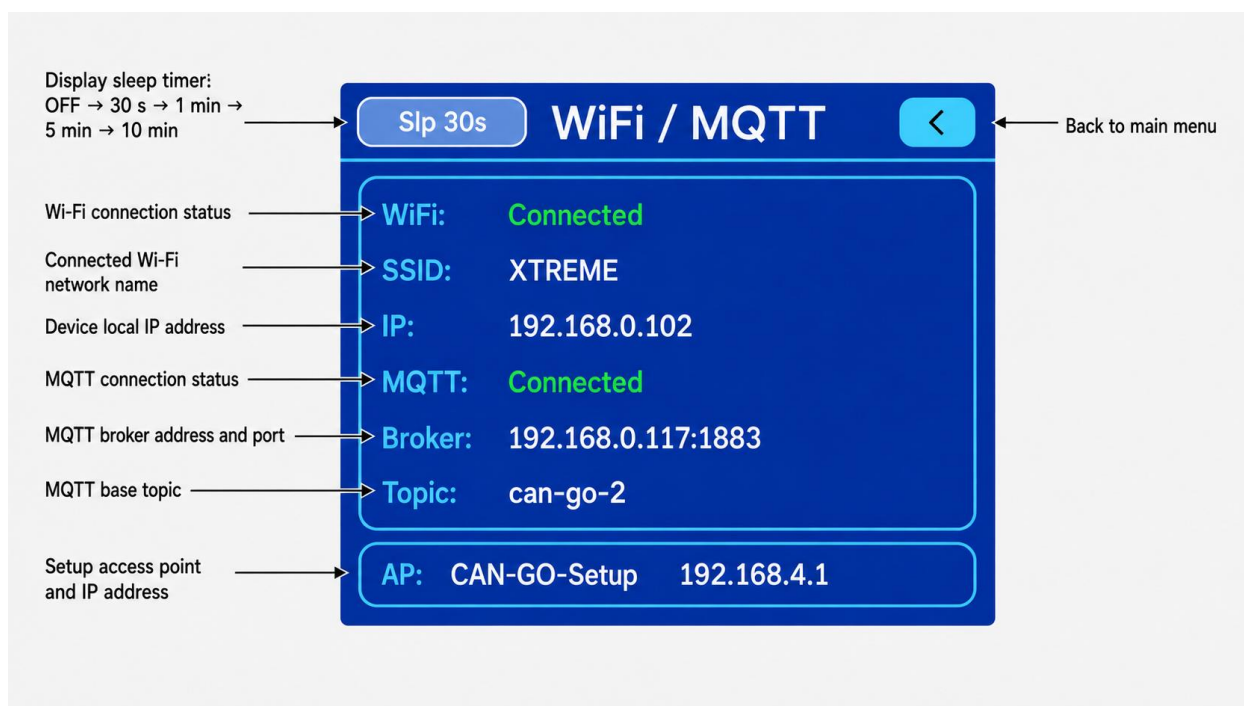


Power screen: instant power, energy, temperature and AC input voltage.

5. WiFi / MQTT setup

The Network / WiFi / MQTT screen shows WiFi status, SSID, local IP address, MQTT connection, broker address, topic and the CAN-GO-Setup AP address.

For first setup, connect from a phone to CAN-GO-Setup, then open 192.168.4.1. Enter local WiFi, MQTT broker, username, password and topic details.



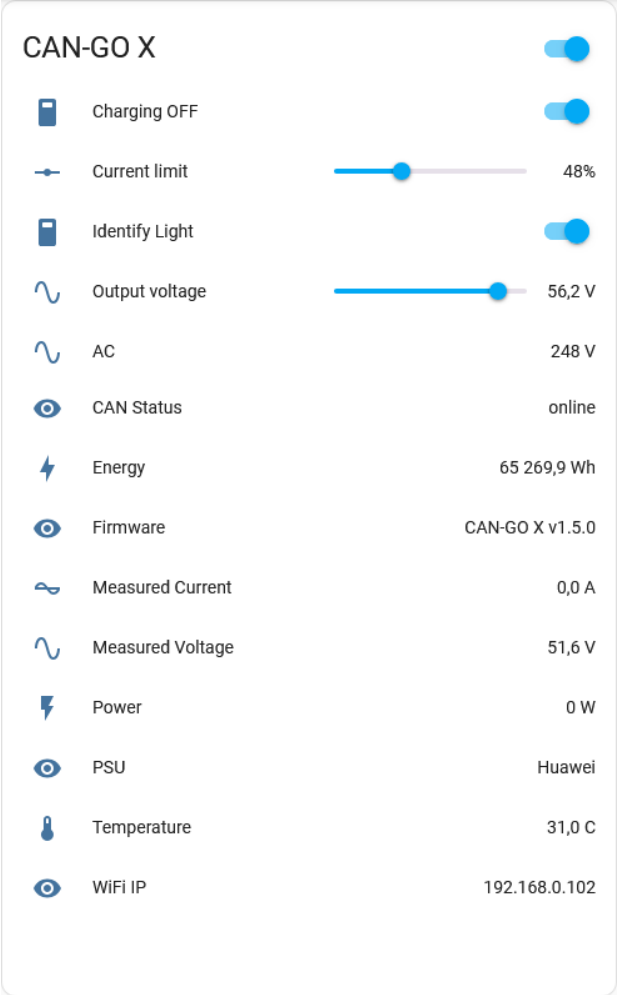
WiFi / MQTT screen: connection, IP address, broker, topic and setup AP.

Field	Description
WiFi SSID	Local WiFi network name
WiFi password	Local WiFi password
MQTT host / IP	Home Assistant or Mosquitto broker IP address
MQTT port	1883

6. Home Assistant usage and web access

Home Assistant can show and control output voltage, current limit, the OFF function, measured voltage, current, power, energy, temperature, CAN status, firmware version and WiFi IP address.

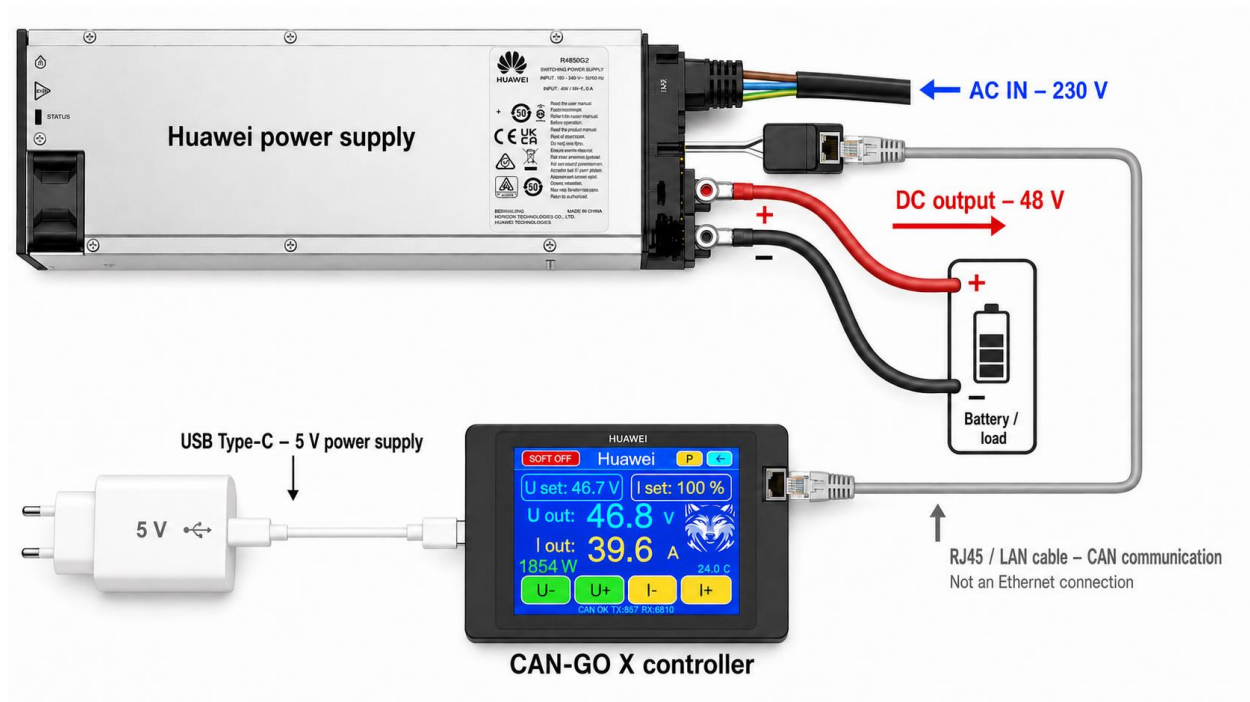
A web view is also available from the CAN-GO X IP address. It lets a phone or browser check network state and key live values even when the Home Assistant dashboard is not open.



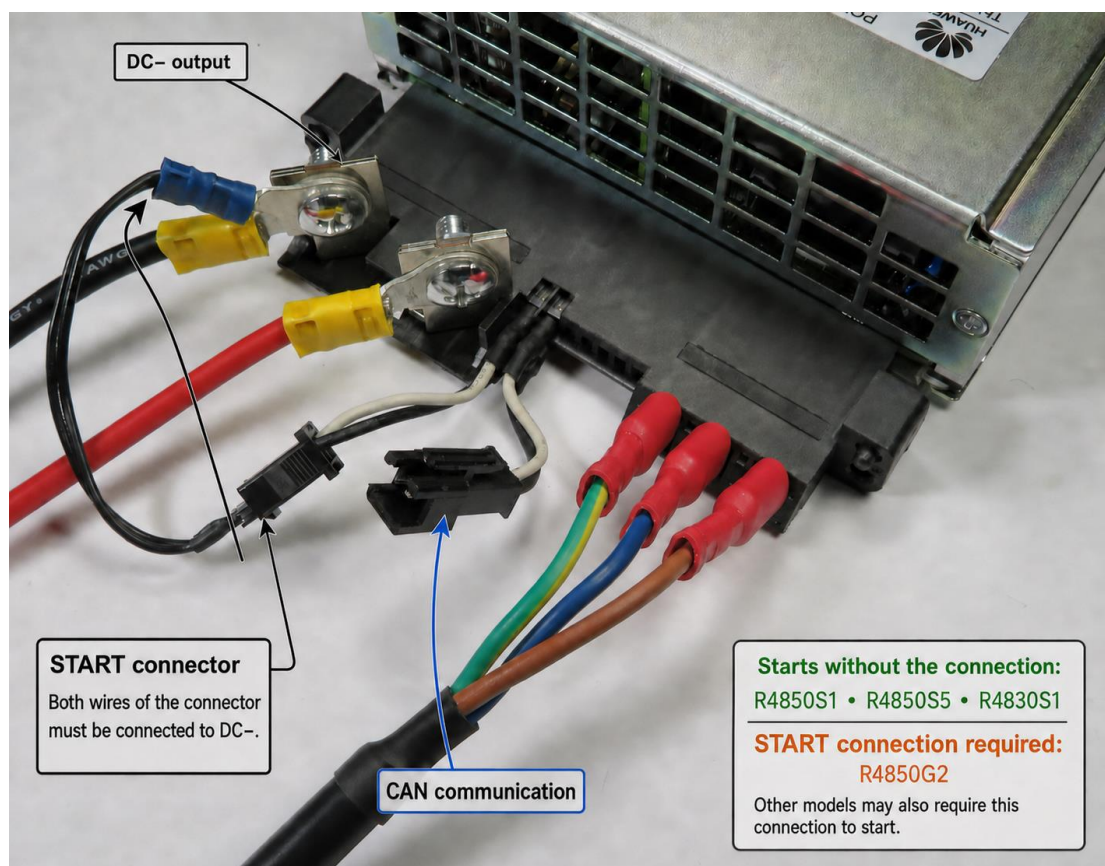
Home Assistant entities: control, measured values, CAN status and WiFi IP address.

7. Wiring and additional documentation

The controller is powered from USB-C 5 V. It communicates with the rectifier over CAN through the RJ45 connector. DC output goes directly from the rectifier high-current output to the battery or load.



Wiring overview: rectifier, CAN-GO X controller, USB-C power and battery.



Huawei wiring example with DC output, START connector and CAN communication.



CAN-GO X enclosure and connectors.

RJ45 CAN pinout

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
-	-	-	CAN-H	CAN-L	-	-	-

RJ45 pin 4 = CAN-H, RJ45 pin 5 = CAN-L.

Safety note

Rectifiers can deliver high current. Wiring must only be changed with power disconnected. When charging batteries, always use a suitable fuse, correctly sized cables and supervision during the first test.