EVIQtech

SwiGO SuperSmart

Complete User Manual

IoT Switch with Power Sensor for High-Power Appliances

Water Pumps · Motors · Heaters · Lighting & More

Single-phase up to 20A / 5kW (built-in) · Up to 40A / 30HP 3-phase with external CT

Version 1.1 · April 2026

www.eviqtech.com

Table of Contents

1. Introduction

The EVIQtech SwiGO SuperSmart is an advanced IoT-enabled motor controller and protector designed for Indian 2-module wall boxes. It controls and protects single-phase loads up to 20A / 5kW with its built-in relay, or up to 40A / 30HP three-phase loads when used with an external CT (Current Transformer). The device combines intelligent motor protection with smart connectivity, allowing you to monitor and control motor-driven equipment locally, over WiFi, or from anywhere via the cloud.

1.1 Key Features

- Real-time voltage, current, power, and energy monitoring (V, A, W, kWh)
- Timer-based ON/OFF control with countdown display and four preset buttons
- Scheduling with daily, weekly, and cyclic time windows
- Over-voltage and under-voltage protection with configurable limits
- Over-current (overload) and under-current (dry-run) protection
- Maximum run duration configuration
- Local AP mode for field/farm use without any WiFi or internet
- WiFi network mode for local home/office control
- Bluetooth Low Energy (BLE) pairing for quick setup
- Cloud connectivity via EVIQtech Cloud (powered by ThingsBoard v4.1.0)
- Remote control from anywhere with activity logging
- Multi-device management from a single app
- Float switch and flow switch support (5V DC)
- Master-Remote control configuration for multi-device setups
- Firmware update capability via the app (OTA)
- Session and cumulative energy metering
- Cross-platform local access — Android app or any web browser (iOS, iPadOS, macOS, Windows, Linux)

1.2 Product Variants

The SwiGO SuperSmart is available in four timing variants. The button timings listed below apply to the physical buttons on the device only. When using the web app or cloud dashboard, any duration in hours and minutes can be set regardless of variant.

Model	Button 1 (Green)	Button 2 (Yellow)	Button 3 (Blue)	Button 4 (Violet)
EDS031	5 min	10 min	15 min	20 min
EDS032	15 min	30 min	45 min	60 min
EDS033	1 hr	2 hr	3 hr	4 hr

Model	Button 1 (Green)	Button 2 (Yellow)	Button 3 (Blue)	Button 4 (Violet)
EDS034	4 hr	8 hr	12 hr	16 hr

1.3 Technical Specifications

Specification	Details
Rated Voltage	250V AC 50Hz
Maximum Switching Voltage	290V AC
Maximum Withstand Voltage	440V AC
Cut-Off Voltage	Below 170V AC or above 290V AC
Maximum Current (Built-in)	20A / 3HP / 5kW
Maximum Current (External CT)	40A / 30HP Three Phase
DC Output for Float Switch	5V DC only
Mounting	Flush / Surface mount in standard Indian 2-module box
Suitable For	Indian 2-module box (surface-mountable)
Standard	IS/IEC 60669-2
Color	White
Weight	225 g
Dimensions	87 × 87 × 45 mm
Terminal Size	2.5 sq mm × 2
Warranty	1 Year

1.4 What’s in the Box

The SwiGO SuperSmart comes ready for installation in a standard Indian 2-module electrical box. The device is designed for surface-mountable 2-module boxes commonly used in Indian residential and commercial wiring. Contents:

- SwiGO SuperSmart unit (1×) — fits standard Indian 2-module surface-mount box
- CR1220 Battery (1×) — included in box; customer to install for RTC backup
- Quick Start Guide
- Mounting hardware

1.5 System Requirements

The SwiGO SuperSmart supports two parallel control paths. Choose whichever matches your device:

Android users: Install the EVIQtech app from the Google Play Store. The app provides BLE pairing, local control, and cloud access.

iOS / iPadOS / iPhone / iPad users: No app installation is required. Use any modern web browser (Safari, Chrome, Firefox) to access the device's built-in local web interface. A native iOS app is under development and will be released soon.

Desktop / laptop users (macOS, Windows, Linux): Use any web browser to access the device on the same WiFi network or via Local AP mode.

Minimum requirements:

- Android smartphone running Android 8.0 or later, OR
- iPhone / iPad running iOS 14 or later (Safari, Chrome, Firefox), OR
- Any device with a modern web browser (macOS, Windows 10/11, Linux) for local control
- 2.4 GHz WiFi network (for WiFi and cloud modes)
- Bluetooth 4.0+ on your Android phone (only required for BLE pairing / cloud provisioning)
- EVIQtech cloud account (only required for remote/cloud features)

> **Note:** Cloud provisioning (linking the device to the EVIQtech Cloud) currently requires the Android app because it uses BLE pairing. iOS and desktop users can perform full local and WiFi setup via the browser interface, and once a device is provisioned to cloud from any Android phone, it can be monitored and controlled from any device via cloud.eviqtech.com.

2. Hardware Overview

2.1 Terminals (Rear)

The rear of the SwiGO SuperSmart has the following terminal connections:

- LINE → IN: Live/Phase incoming from mains supply
- N: Neutral — two terminals both marked N; use one for incoming supply neutral and the other for looping neutral to the load
- LINE → OUT: Live/Phase output to load (motor, pump, heater, etc.)
- 5V DC Red & Black wires: Float switch supply — 5V DC ONLY
- Green wire: Earth connection

> **Note:** Both neutral terminals are simply marked N. They are internally connected. You only need to connect the incoming supply neutral to one terminal. The second N terminal is provided for convenience (e.g., looping neutral to another socket). Since this is a single-pole switch, neutral is not switched — the load neutral is typically already available at the load side.

> **WARNING:** Never connect the 5V DC float switch wires to AC mains (220V). Doing so will damage the device and void the warranty. These wires output 5V DC only and must be connected directly to a float switch or flow switch.

2.2 Front Panel Buttons

The front panel has five buttons with color-coded functions:

Button	Color	Function
Button 1	Green	Timer — duration per variant (see Section 1.2)
Button 2	Yellow	Timer — duration per variant
Button 3	Blue	Timer — duration per variant
Button 4	Violet	Timer — duration per variant
Button 5	Red (right)	Manual OFF / Stop

2.3 Button Combinations — System Functions

Special button combinations provide system-level functions:

Combination	Hold	LED	Function
Green + Yellow	5 sec	Blue blinks	Activate BLE pairing mode
Red (alone)	10 sec	Blue LED on	Activate Parallel AP mode

Combination	Hold	LED	Function
Violet + Red	10 sec	Blue LED on	Remove WiFi settings, return to AP mode
Yellow + Blue + Red	20 sec	Blue LED on	Full factory reset — clears ALL settings

> **Important:** A full factory reset (Yellow + Blue + Red) erases all settings including WiFi, name, PIN, cloud link, protection thresholds and schedules. A complete re-setup will be required.

2.4 Fault Indicators (LED)

Fault	LEDs	Colors	Timing
Dry-run (under-current)	LED 1 + Right RED LED	Both RED	Blinks 6s; startup grace 7s; trips after 4s
Overload (over-current)	LED 2 + Right RED LED	Both RED	Blinks 6s; startup grace 7s; trips after 4s
Under-voltage	LED 3 + Right RED LED	LED3 RED, Right RED	Continuous; trips within 7s
Over-voltage	LED 4 + Right RED LED	LED4 RED, Right RED	Continuous; trips within 7s

2.5 Connection Diagrams

The SwiGO SuperSmart supports six standard wiring configurations. Each circuit is described below with its connection diagram.

> **Note:** For all circuits: the float switch connects to 5V DC terminals only. Both neutral terminals (N) are internally connected — use one or both as convenient. The device is a single-pole switch; neutral is not switched.

Circuit 1: Heater / Resistive Load

Use this wiring for resistive loads such as water heaters, room heaters, and immersion rods. A simple single-phase connection with live switched through the SwiGO SuperSmart and neutral passed directly to the load.

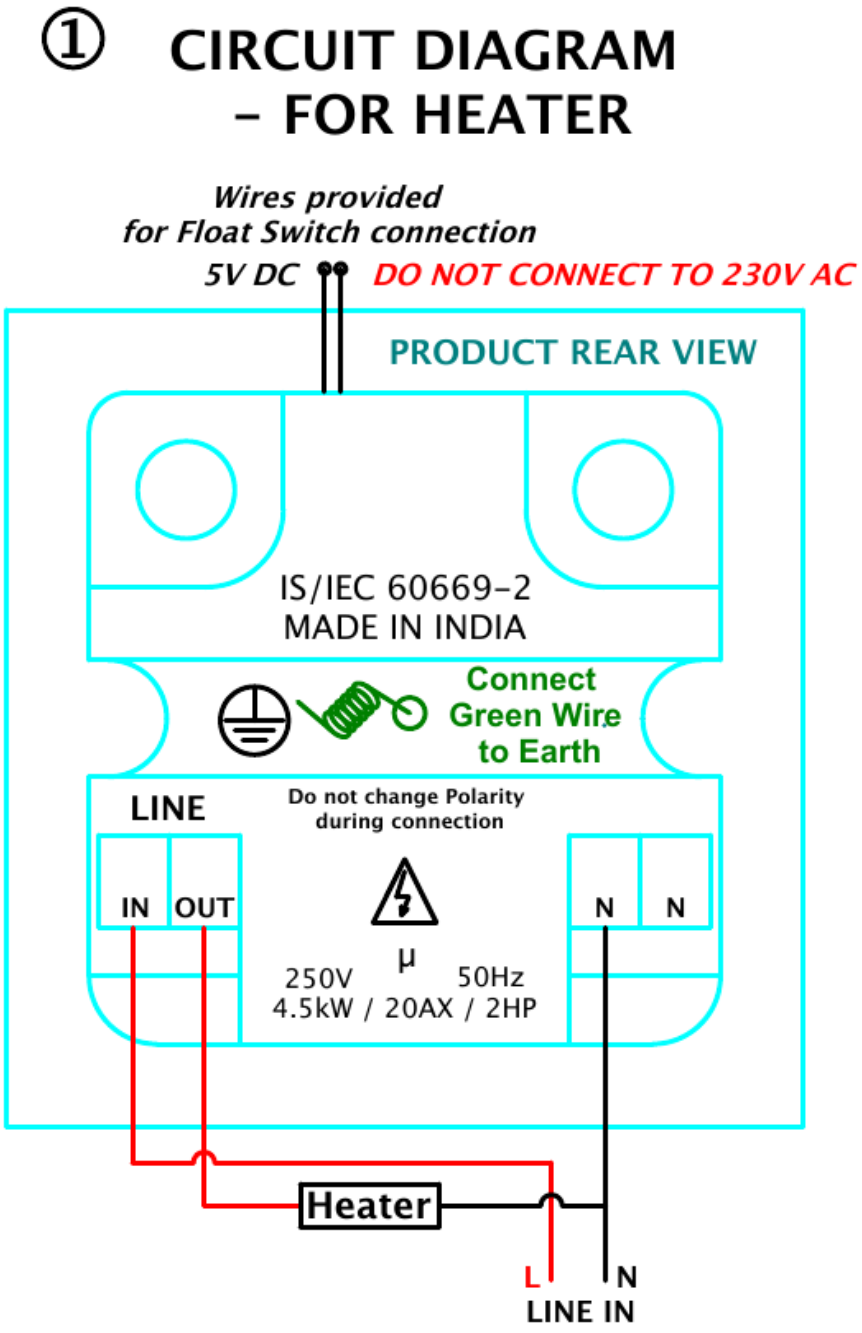

Figure 2.1 — Circuit 1: Heater wiring diagram

From (Supply / Device)	To (Load / Accessory)
Mains Live (Phase)	SwiGO LINE → IN
SwiGO LINE → OUT	Heater Live terminal
Mains Neutral	SwiGO N (either terminal)
SwiGO N (other terminal) or direct	Heater Neutral terminal

Circuit 2: Compound / Street Lighting

For compound lights, street lights, or multiple light circuits. The SwiGO SuperSmart acts as a smart switch for the entire lighting circuit, providing timer and scheduling control.

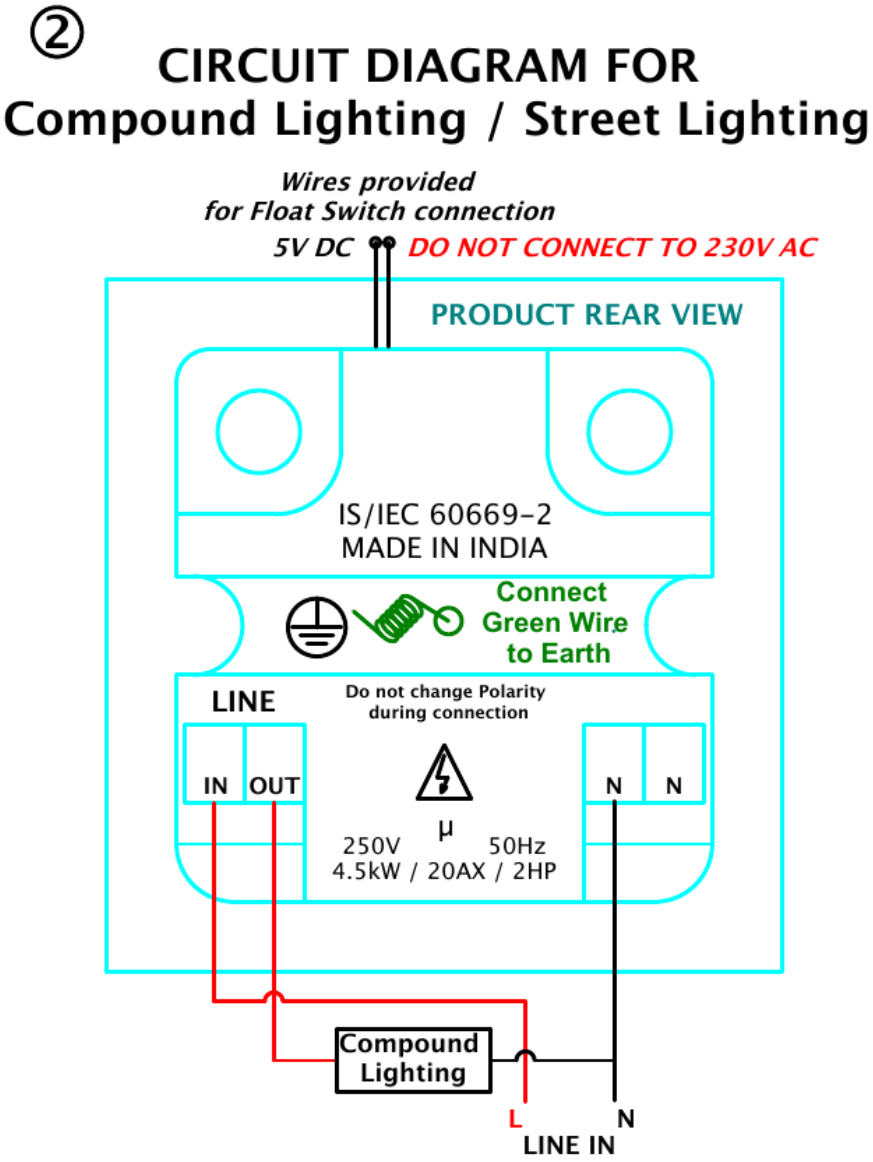

Figure 2.2 — Circuit 2: Compound / Street Lighting wiring diagram

From (Supply / Device)	To (Load / Accessory)
Mains Live (Phase)	SwiGO LINE → IN
SwiGO LINE → OUT	Lighting circuit Live
Mains Neutral	SwiGO N (either terminal)
Neutral bus / direct	Lighting circuit Neutral

Circuit 3: Sump Pump / Monobloc / Single-Phase Motor (Most Common)

The most common wiring for single-phase motors including sump pumps, monobloc pumps, and general-purpose motors. Supports optional float switch for automatic tank-full shutoff.

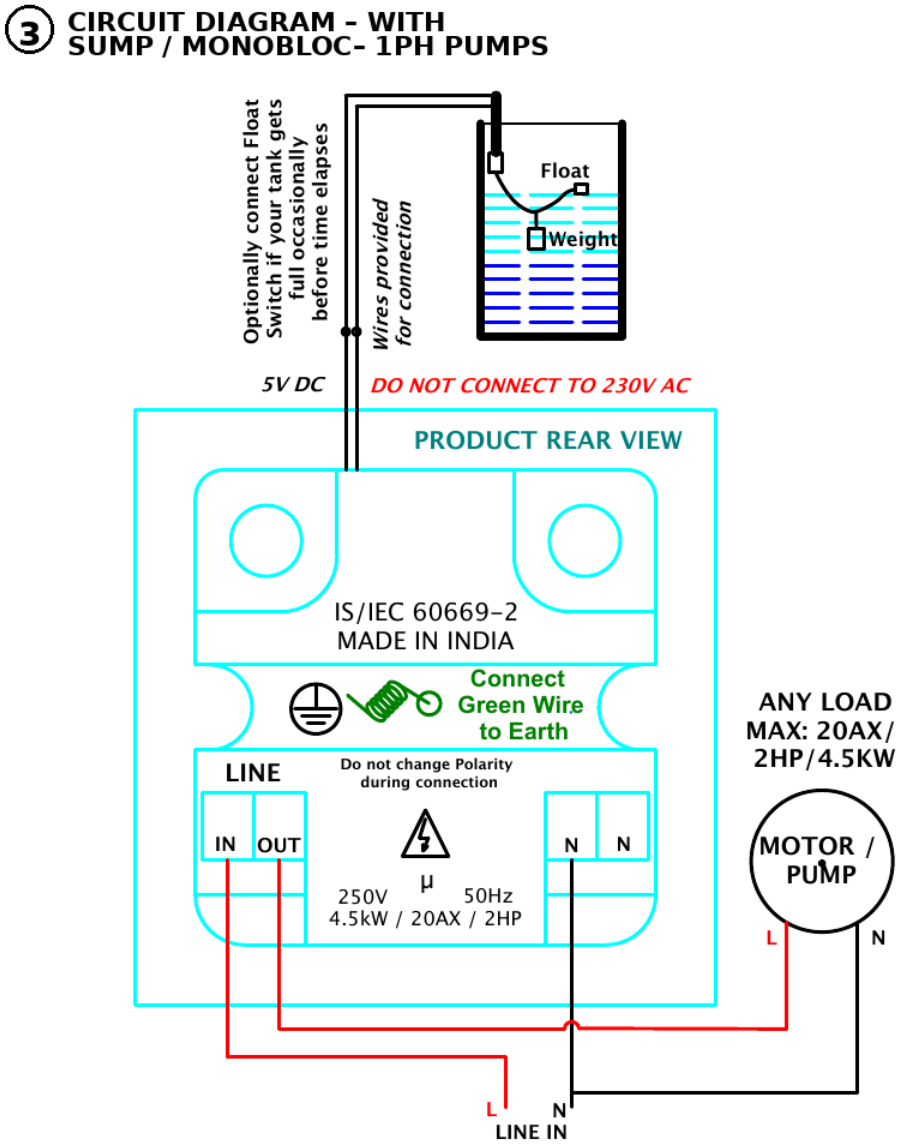

Figure 2.3 — Circuit 3: Sump / Monobloc pump wiring diagram

From (Supply / Device)	To (Load / Accessory)
Mains Live (Phase)	SwiGO LINE → IN
SwiGO LINE → OUT	Motor / Pump Live terminal
Mains Neutral	SwiGO N (either terminal)
SwiGO N (other terminal) or direct	Motor / Pump Neutral terminal

From (Supply / Device)	To (Load / Accessory)
SwiGO 5V DC Red wire	Float switch wire (see Section 7.7)
SwiGO 5V DC Black wire	Float switch wire (see Section 7.7)
SwiGO Green wire	Earth connection

Circuit 4: Energy Monitoring Pass-Through

In this configuration, the SwiGO SuperSmart monitors voltage, current, power, and energy consumption of the load without switching it. The load remains always connected. Useful for energy auditing and monitoring equipment that should not be switched off.

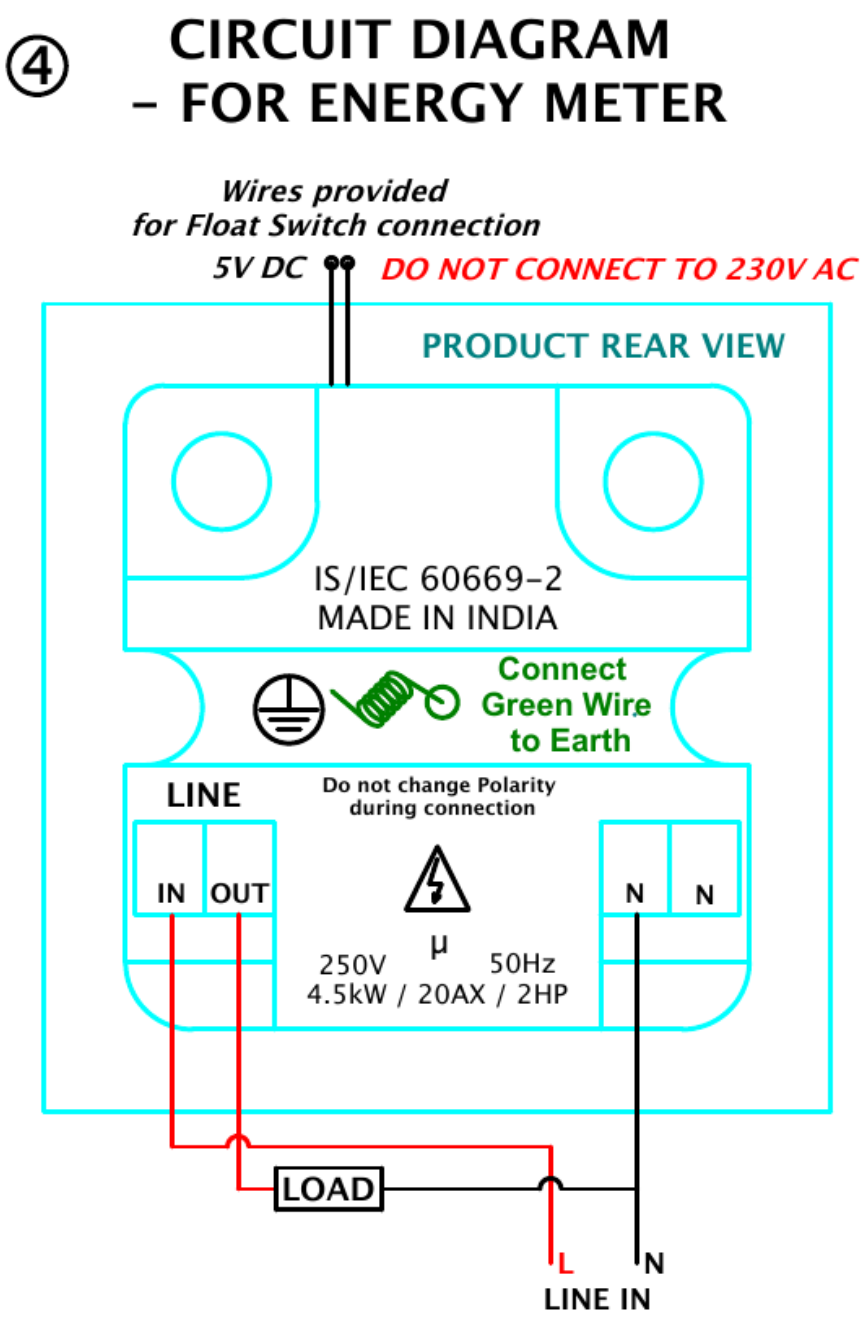

Figure 2.4 — Circuit 4: Energy Meter pass-through wiring diagram

From (Supply / Device)	To (Load / Accessory)
Mains Live (Phase)	SwiGO LINE → IN
SwiGO LINE → OUT	Load Live (always-on)
Mains Neutral	SwiGO N (either terminal)
Direct	Load Neutral

> **Tip:** In pass-through mode, disable protection features to prevent the SwiGO SuperSmart from tripping the always-on load during normal operation.

Circuit 5: Pressure Pump / Booster Pump — Protection-Only Mode

For pressure pumps and booster pumps where the pump has its own pressure switch. The SwiGO SuperSmart provides over-current, under-current, and voltage protection without interfering with the pump's built-in pressure-based start/stop logic.

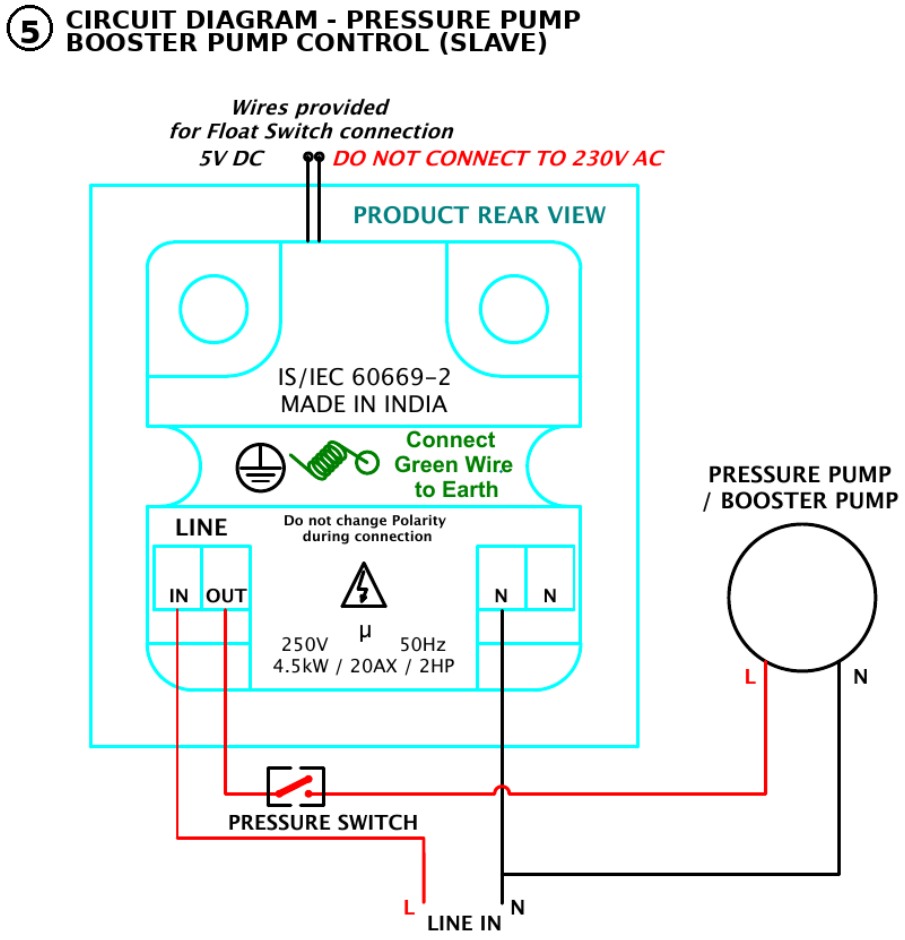

Figure 2.5 — Circuit 5: Pressure Pump wiring diagram

From (Supply / Device)	To (Load / Accessory)
Mains Live (Phase)	SwiGO LINE → IN
SwiGO LINE → OUT	Pressure switch input
Pressure switch output	Pump Live terminal
Mains Neutral	SwiGO N (either terminal)
Direct	Pump Neutral terminal

> **Note:** Set Max Run Duration to 0 (disabled) when the pump is controlled by its own pressure switch. The SwiGO SuperSmart will only trip on fault conditions.

Circuit 6: Submersible Pump with EVIQtech Self-Starter

For submersible pumps paired with the EVIQtech Self-Starter unit. The SwiGO SuperSmart controls and protects the submersible pump while the Self-Starter handles motor starting requirements.

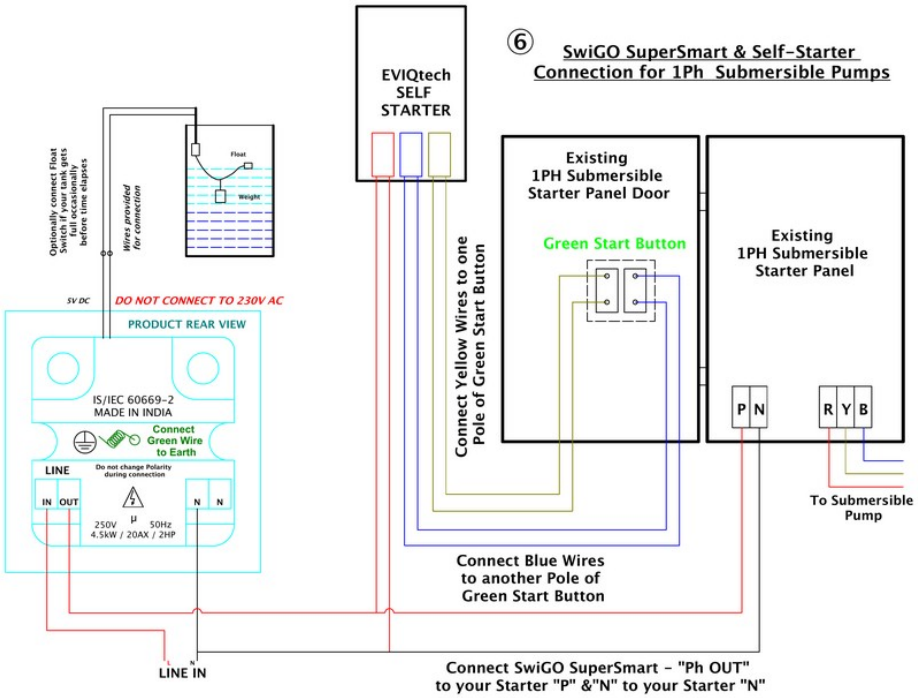

Figure 2.6 — Circuit 6: Submersible Pump + Self-Starter wiring diagram

From (Supply / Device)	To (Load / Accessory)
Mains Live (Phase)	SwiGO LINE → IN
SwiGO LINE → OUT	Submersible Pump Live and Self-Starter input Live
Self-Starter Yellow & Blue pair wires	Existing starter's Start button
Mains Neutral	SwiGO N (either terminal)
SwiGO N (other terminal) or direct	Self-Starter / Pump Neutral
SwiGO 5V DC wires	Float switch (see Section 7.7)
SwiGO Green wire	Earth connection

> **Important:** Ensure the Self-Starter is rated for your submersible pump capacity. Refer to the Self-Starter manual for its specific wiring and configuration.

3. Getting Started

The SwiGO SuperSmart gives you three ways to set up and control your device. Choose the path that matches your phone / device.

3.1 Choose Your Access Method

Your Device	Access Method	What You Need
Android phone / tablet	EVIQtech app (recommended)	Google Play Store — search “EVIQtech”
iPhone / iPad	Browser (Safari, Chrome, Firefox)	No install — uses built-in web interface
Mac, Windows or Linux	Any modern browser	No install — uses built-in web interface

> **Note:** The Android app is required only for BLE cloud provisioning. All other features — local control, WiFi setup, scheduling, protection, float switch, energy monitoring — are fully available on every platform via the browser interface.

3.2 Installing the EVIQtech App (Android only)

Step 1: Open the Google Play Store on your Android phone.

Step 2: Search for “EVIQtech” in the search bar.

Step 3: Download and install the EVIQtech app.

Step 4: Once installed, locate the EVIQtech app icon on your home screen.

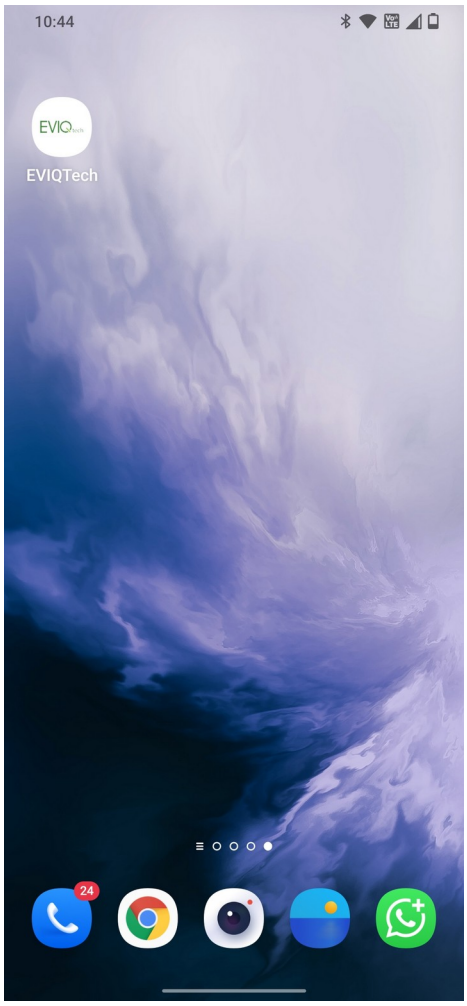

Figure 3.1 — EVIQtech app icon on Android home screen

3.3 Browser Access (iOS / iPadOS / Desktop)

iOS and desktop users skip the app install entirely. After power-on, simply connect to the SwiGO SuperSmart's WiFi Access Point (or your home WiFi once the device is configured) and open any browser. See Section 4 for Local AP setup and Section 9 for full browser access details.

> **Tip:** Bookmark http://192.168.4.1 (AP mode) and http://DeviceName.local (WiFi mode) in your browser for quick one-tap access.

3.4 Enabling Bluetooth and WiFi

The SwiGO SuperSmart uses Bluetooth Low Energy (BLE) for Android-based cloud provisioning and WiFi for ongoing communication. For BLE pairing (Mode C, Android only), both must be enabled. For AP mode (Mode A) and WiFi mode (Mode B), only WiFi is needed.

Step 1: On Android, swipe down from the top of your screen to open Quick Settings.

Step 2: Ensure both WiFi and Bluetooth are turned ON (highlighted/blue).

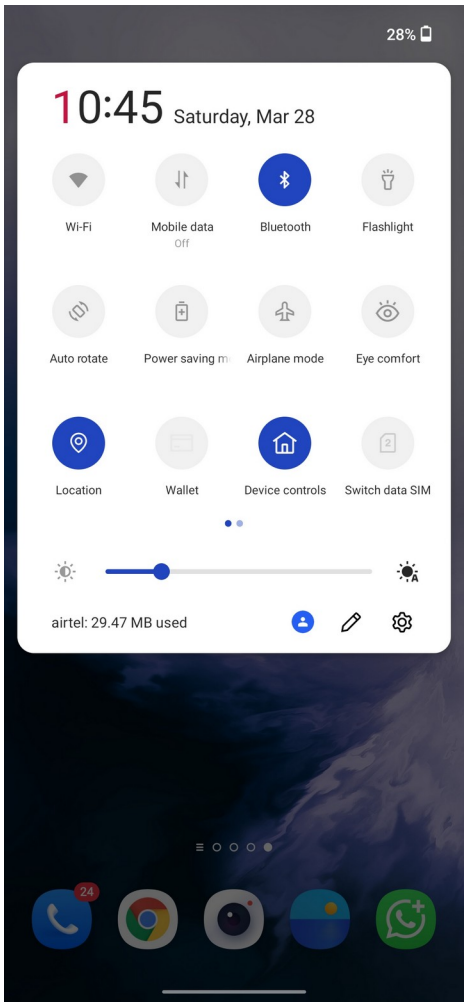

Figure 3.2 — Quick Settings: WiFi and Bluetooth enabled

3.5 Understanding the Three Access Modes

Mode	Connection	Internet	Best For
A — Local AP	Direct WiFi AP from device	No	Field, farm, no router
B — WiFi Network	Home / office WiFi router	No	Local home / office control
C — BLE + Cloud	BLE → WiFi → Cloud	Yes	Remote from anywhere

4. Mode A — Local AP Mode

In AP mode, the SwiGO SuperSmart creates its own WiFi access point. Connect and control the device directly without any router or internet. Ideal for field installations, farms, or locations without WiFi. This mode works with both the Android app and any browser (iOS, macOS, Windows, Linux).

4.1 First-Time Setup — Initial Setup Page

When the SwiGO SuperSmart is powered on for the first time (or after a factory reset), it presents an Initial Setup page where you create your own Device Name and Security PIN. There is no default PIN to remember — you define your own during this one-time setup.

Step 1: Power on the device. Within approximately 60 seconds it creates its own WiFi Access Point named SwiGOss_AP.

Step 2: On your phone / tablet / laptop, open WiFi Settings and connect to SwiGOss_AP.

Step 3: Open access:

- **Android:** Launch the EVIQtech app. The device appears as SwiGOss.local at 192.168.4.1.
- **iOS / Desktop:** Open any browser (Safari, Chrome, Firefox) and go to http://192.168.4.1.

Step 4: The Initial Setup page appears (only on the very first launch). On this page, enter:

- Device Name — a memorable name such as "Motor", "Pump", or "Tank"
- Security PIN — a 4-digit PIN you will use every time you unlock the device
- Home WiFi Network (optional) — if you want the device to connect to your home / office WiFi immediately

Step 5: Tap Complete Setup. The AP renames itself to DeviceName_AP (for example, Motor_AP).

Step 6: A confirmation appears: "Connect to new AP (Motor_AP)". On your phone, go to WiFi Settings and connect to the new AP.

Step 7: Reopen the app or browser:

- Android: Relaunch the EVIQtech app.
- iOS / Desktop: Browse to http://192.168.4.1 or http://motor.local (use your chosen Device Name).

Step 8: Enter the PIN you set in Step 4 and tap Unlock. You are now on the Dashboard.

> **Note:** No internet is required. If no interaction occurs for 10 minutes the session times out and you'll need to re-enter your PIN.
>
> **Tip:** If the configured WiFi network is unavailable later, the device falls back to AP mode automatically within 15 seconds so you can always reach it locally.

4.2 Subsequent Access in AP Mode

After the Initial Setup is complete, entering AP mode on later sessions is simple:

Step 1: Connect to DeviceName_AP from WiFi Settings.

Step 2: Open the app (Android) or browser at http://192.168.4.1 or http://DeviceName.local (iOS/desktop).

Step 3: Enter your 4-digit PIN to unlock.

5. Mode B — WiFi Network Mode

In WiFi Network mode, the SwiGO SuperSmart connects to your home / office WiFi router. All devices on the same network can discover and control it. No internet required. Works with Android app and any browser.

5.1 Setting Up WiFi Mode

You can configure home WiFi during Initial Setup (Section 4.1, Step 4) or anytime afterwards via Settings.

Step 1: Connect to the device in AP mode (see Section 4).

Step 2: Navigate to Settings → WiFi Settings.

Step 3: Enter your router's SSID (network name) and password.

Step 4: Tap Save. The device disconnects from AP mode and connects to your router.

Step 5: On your phone, reconnect to the same WiFi network.

Step 6: Open the app or browser:

- Android: Device appears with its name and router-assigned IP.
- iOS / Desktop: Browse to http://DeviceName.local (e.g., http://motor.local) or the IP shown in your router.

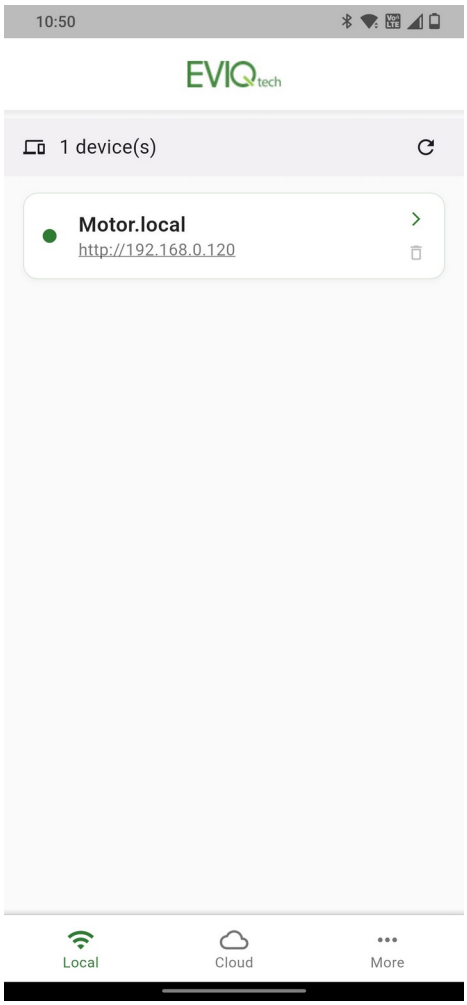

Figure 5.1 — Motor.local at 192.168.0.120 (online)

> **Note:** The device is accessible via DeviceName.local (mDNS) on the same network. Most modern devices including iPhones, iPads, Macs, and Windows 10/11 support mDNS natively.

6. Mode C — BLE Pairing + WiFi + Cloud

Mode C is the recommended setup for full IoT functionality. It uses Bluetooth Low Energy (BLE) to configure the device, connects it to WiFi, and optionally links it to the EVIQtech Cloud for remote access from anywhere.

> **Note:** BLE cloud provisioning currently requires the EVIQtech Android app. iOS / iPad / desktop users can use Modes A and B (browser-based) for full local control. Once a device is provisioned to the cloud from any Android phone, it can be monitored and controlled from any platform at cloud.eviqtech.com.

6.1 Prerequisites

- SwiGO SuperSmart device powered ON
- BLE pairing mode activated: Hold Green + Yellow buttons ~5 seconds until the blue LED blinks
- Bluetooth enabled on your Android phone
- EVIQtech app installed
- Home WiFi name (SSID) and password ready
- EVIQtech cloud account email (if enabling cloud)

6.2 Activating BLE Pairing Mode

Step 1: Press and hold the Green + Yellow buttons on the hardware for approximately 5 seconds.

Step 2: Wait until the blue LED starts blinking. BLE pairing mode is now active.

Step 3: Proceed quickly to the app — BLE mode is available for a limited time.

6.3 Opening the App and Starting BLE Scan

Step 4: Open the EVIQtech app.

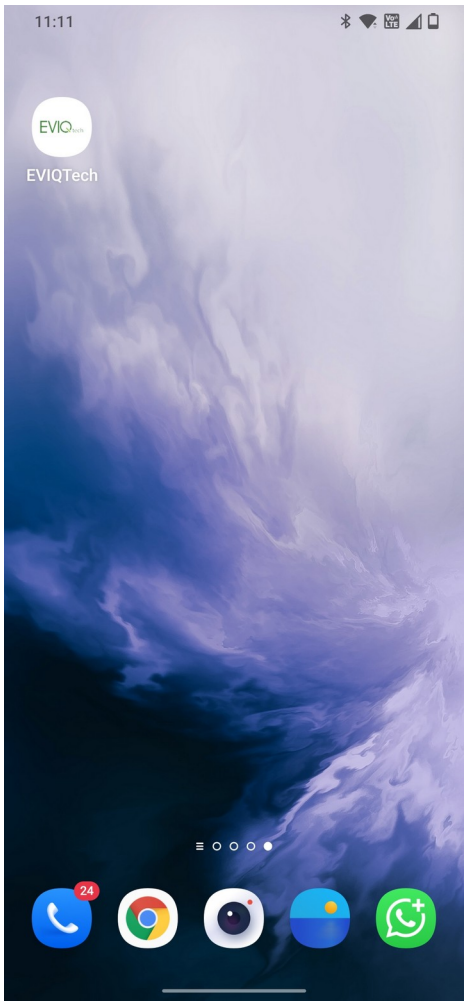

Figure 6.1 — Open the EVIQtech app

Step 5: If no devices found, you'll see "No EVIQTech devices found" with Scan Again.

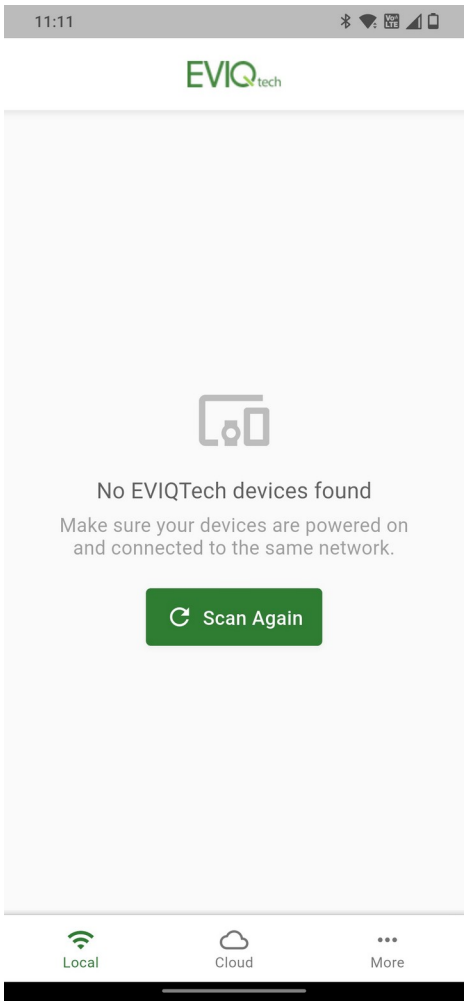

Figure 6.2 — No devices on local network

Step 6: Tap the menu in the bottom right corner (…) and select "Add New Device".

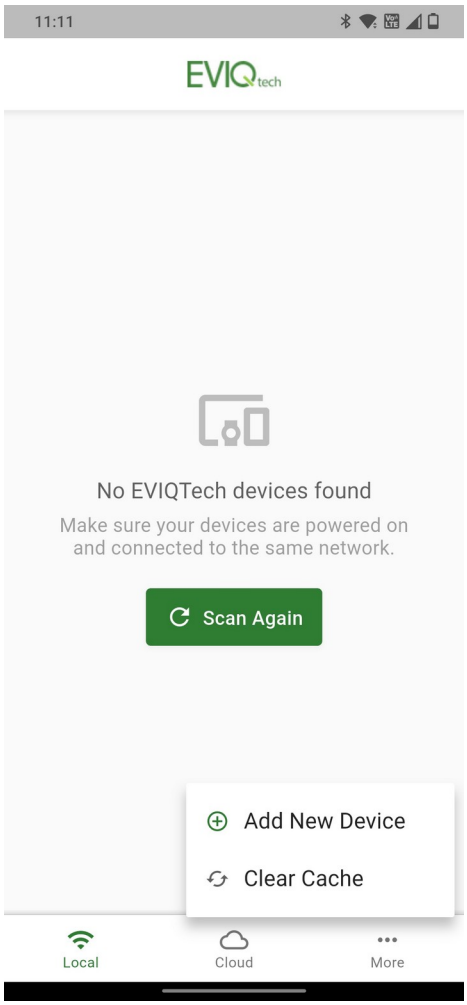

Figure 6.3 — Add New Device / Clear Cache

6.4 Granting Permissions

Step 7: Tap "Allow" to let EVIQtech find and connect to nearby devices.

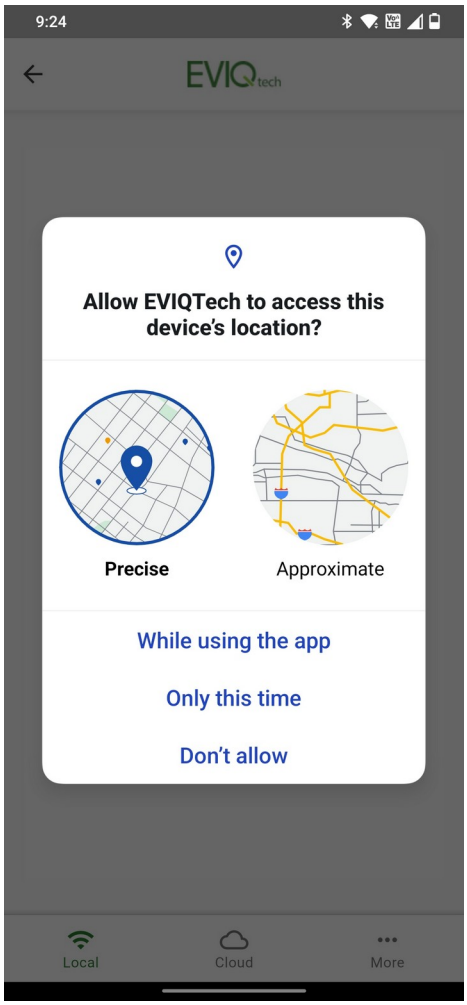

Figure 6.4 — Allow nearby device access

Step 8: Select "Precise" location and "While using the app".

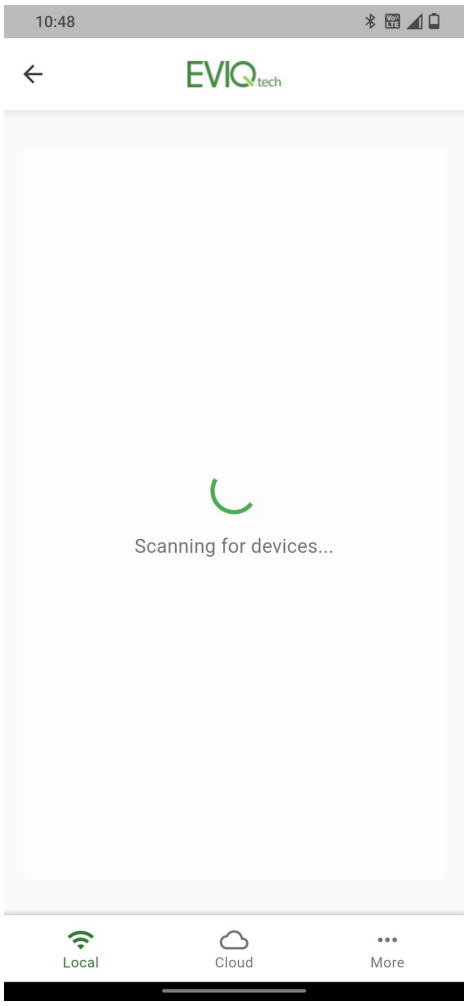

Figure 6.5 — Allow location access (Android BLE requirement)

> **Note:** Android requires location permission for Bluetooth scanning. The app does not track your location.

6.5 Scanning and Selecting Your Device

Step 9: The app scans via Bluetooth. You'll see "Scanning for devices…"

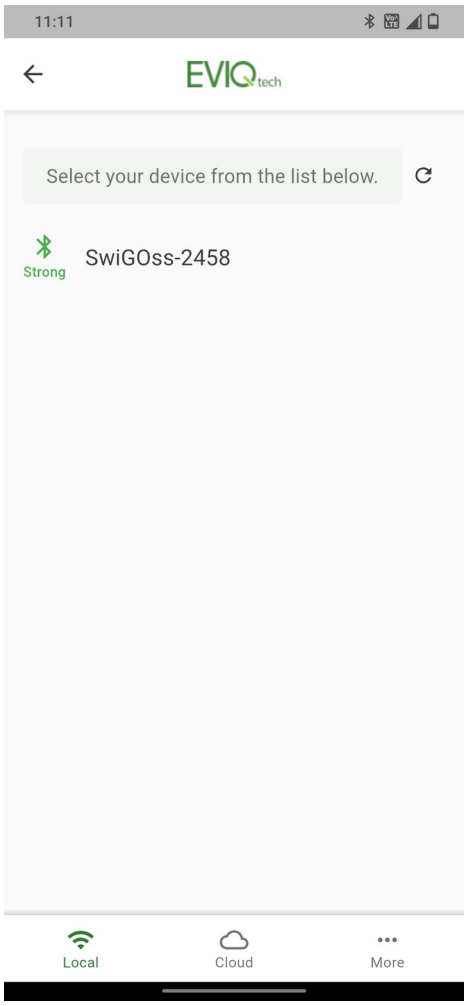

Figure 6.6 — Scanning for BLE devices

Step 10: Your device appears with signal strength (Strong / Weak). Tap to select.

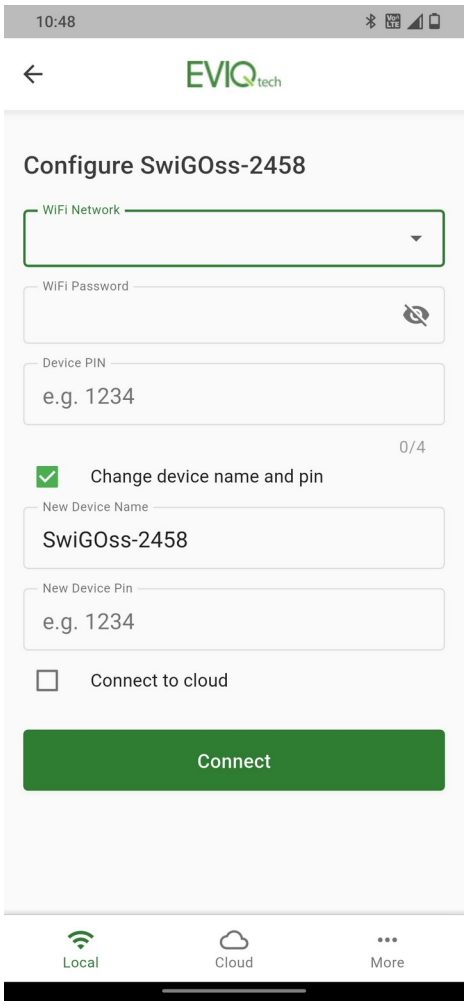

Figure 6.7 — SwiGOss-2458 found (Strong signal)

6.6 Configuring the Device (Single-Page Setup)

As of firmware 1.14.11 and later, device configuration uses a single unified page that matches the Initial Setup experience. Whether you are setting up via BLE (Mode C) or via the Initial Setup page (Mode A), you enter the same fields in one place.

Step 11: Fill in the configuration fields:

- WiFi Network: Select your 2.4 GHz home WiFi
- WiFi Password: Enter password; tap the eye icon to verify
- Device Name: Enter your preferred name (e.g., "Motor", "Pump")
- Security PIN: Set a 4-digit PIN of your choice — this becomes your device's PIN going forward
- Connect to cloud: Check to enable cloud connectivity (optional)

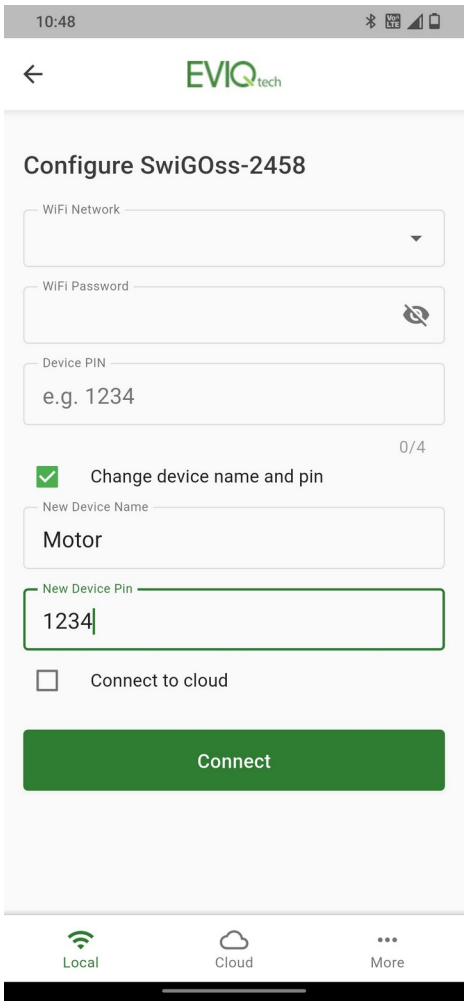

Figure 6.8 — Configure screen (blank)

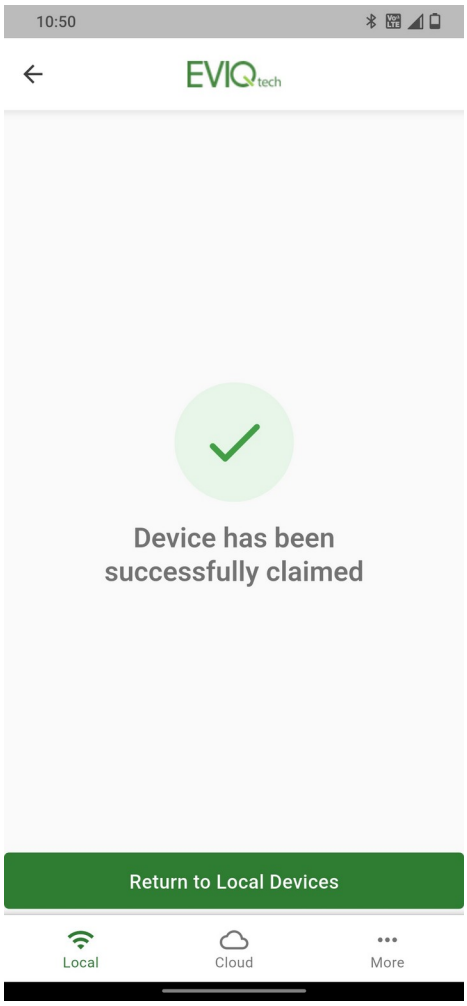

Figure 6.9 — Renamed to Motor, PIN set

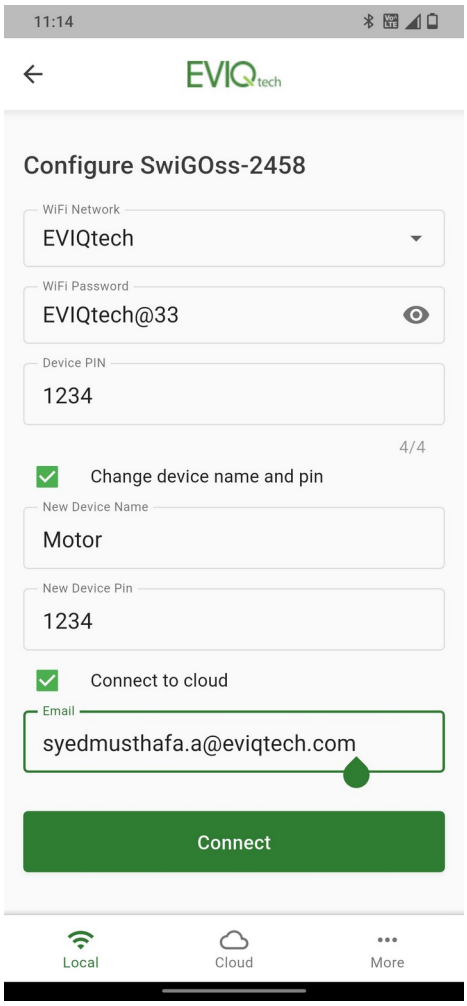

Figure 6.10 — Complete config with WiFi

Step 12: Tap Connect. The device configures and connects to WiFi.

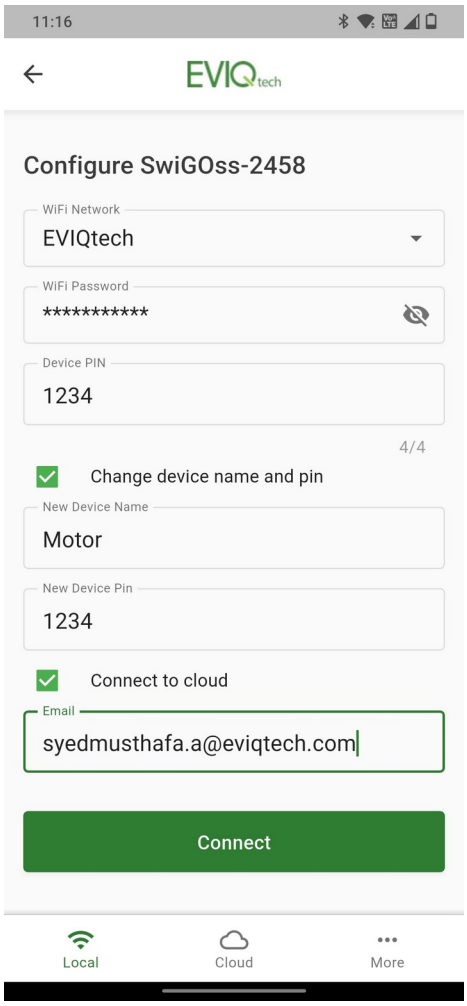

Figure 6.11 — Device successfully claimed

6.7 Enabling Cloud Connection

If you checked "Connect to cloud" on the configuration page, an Email field appears.

Step 13: Enter your EVIQtech cloud account email address. If you do not yet have an account, create one at cloud.eviqtech.com or via the Cloud tab in the app.

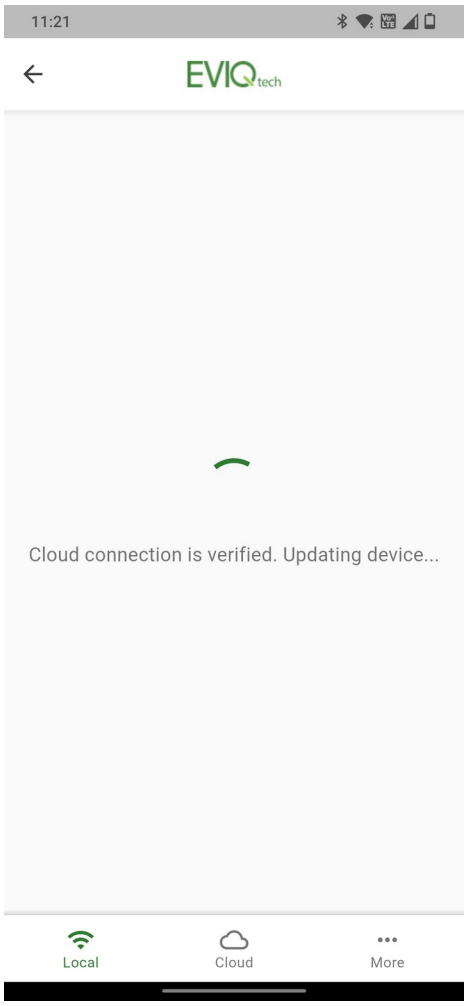

Figure 6.12 — Cloud enabled, password visible

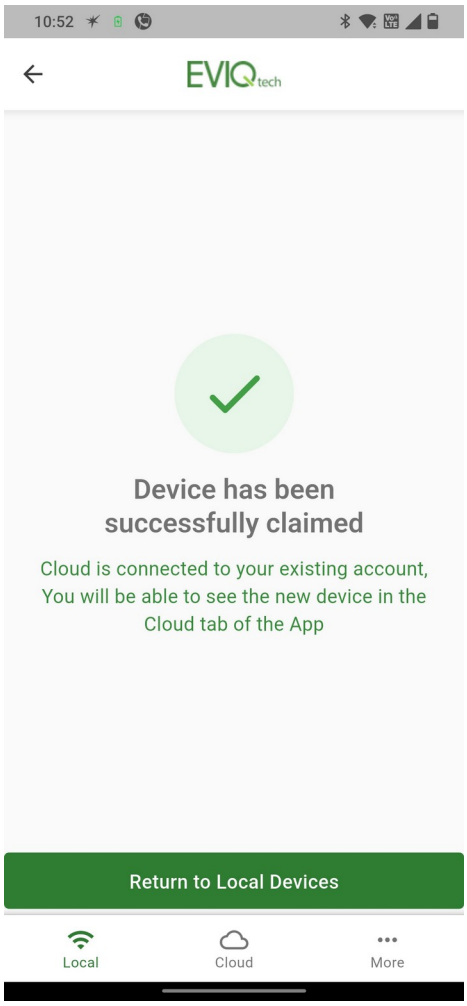

Figure 6.13 — Cloud enabled, password hidden

> **Important:** Ensure the email matches your EVIQtech cloud account exactly. The device will be linked to this account.

Step 14: Tap Connect.

6.8 Cloud Verification and Provisioning

Step 15: "Cloud connection is verified. Updating device…" appears during provisioning.

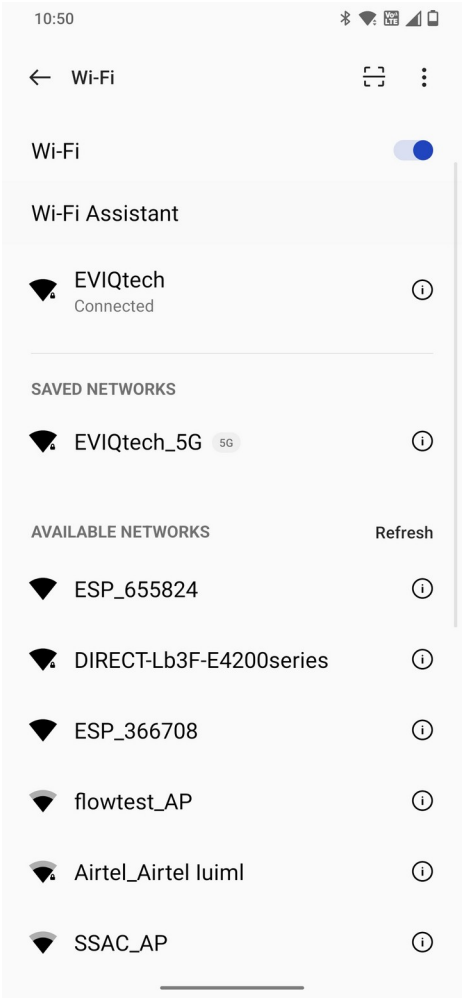

Figure 6.14 — Cloud verifying and provisioning

Step 16: Success: "Device has been successfully claimed" — cloud is connected.

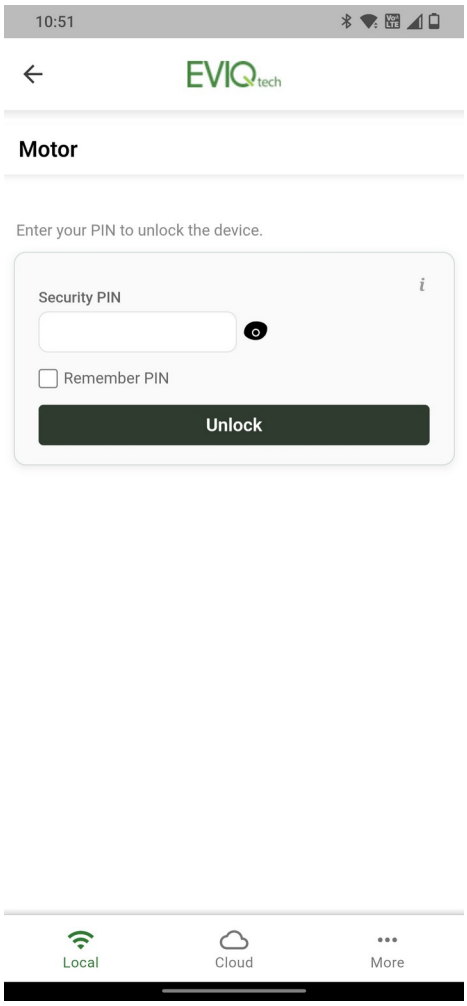

Figure 6.15 — Claimed with cloud confirmed

6.9 Verifying WiFi and Local Access

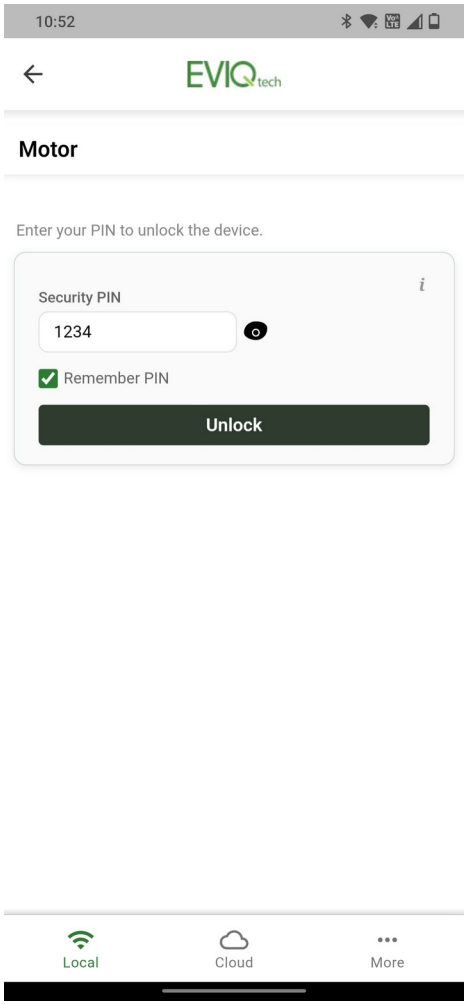

Figure 6.16 — Phone on EVIQtech WiFi

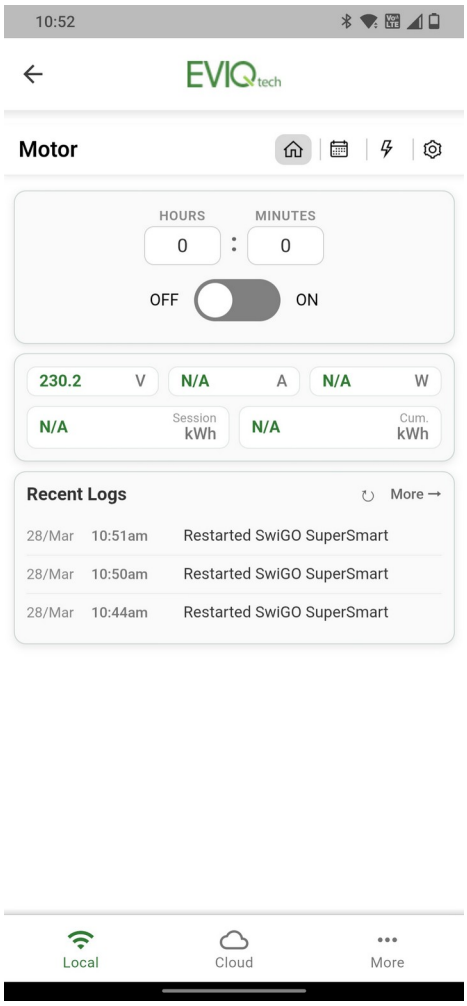

Figure 6.17 — Motor.local at 192.168.0.120

7. Using the Local App Interface

The EVIQtech Android app has three bottom tabs: Local, Cloud, and More. The browser interface (iOS / desktop) mirrors the Local tab exactly, so the screens described in this section apply equally to both.

7.1 Unlocking the Device

Step 1: Tap your device in the Local devices list (Android) or load the device page in the browser (iOS / desktop).

Step 2: Enter your 4-digit PIN and tap Unlock. Check "Remember PIN" for convenience.

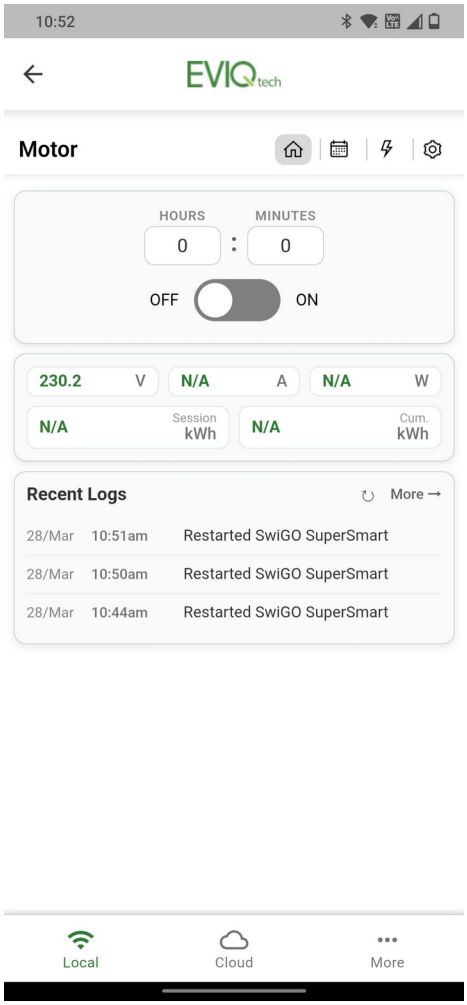

Figure 7.1 — Security PIN entry

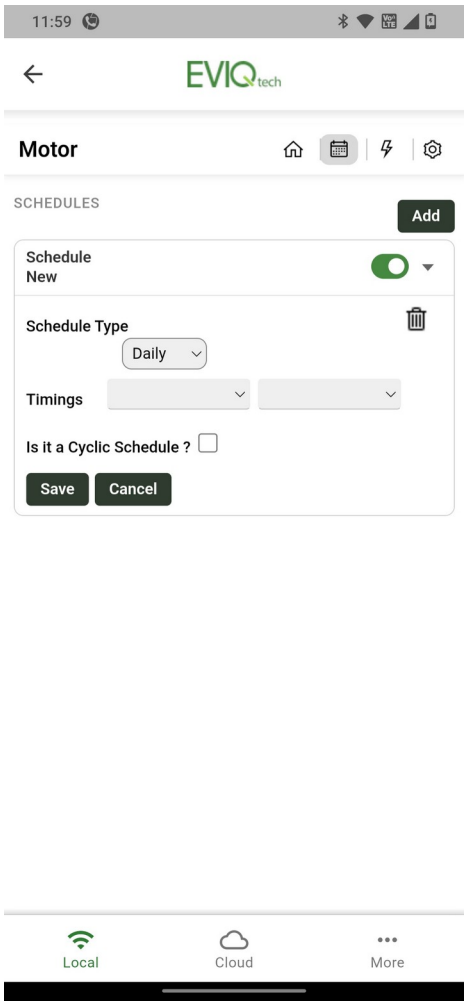

Figure 7.2 — PIN entered, Remember PIN checked

7.2 Home Page (House Icon)

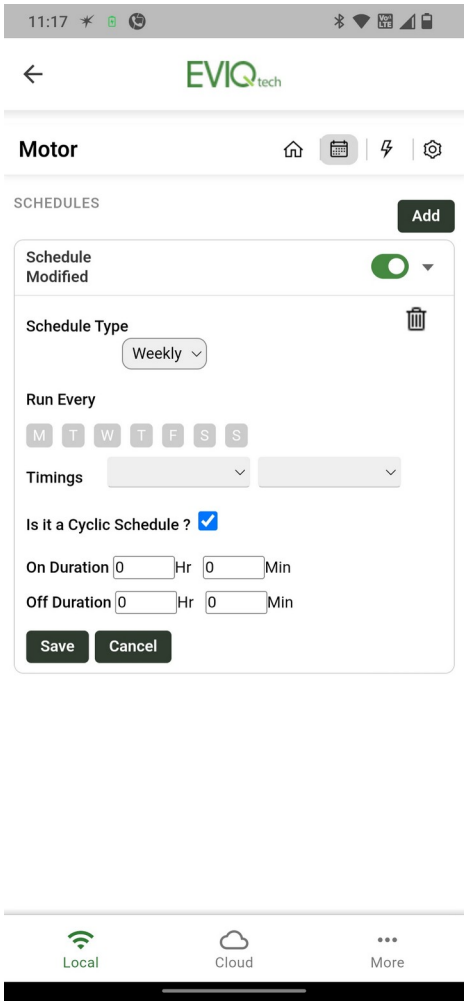

Figure 7.3 — Local Home page

- Hours : Minutes — Set custom timer duration
- OFF / ON toggle — Main power switch
- Voltage (V) — Real-time mains voltage (e.g., 230.2V)
- Current (A) — Real-time current draw
- Power (W) — Real-time power consumption
- Session kWh — Energy for current session
- Cumulative kWh — Total lifetime energy
- Recent Logs — Timestamped activity log; tap "More" for full history

7.3 Navigation Icons

- Home (house) — Main control panel (default)
- Schedules (calendar) — Schedule management
- Protection (lightning) — Protection settings and energy data
- Settings (gear) — Device configuration

7.4 Schedules Page

The Schedules page lets you automate motor operation with flexible time-based control. Tap the Calendar icon in the navigation bar to access it. You can create multiple schedules, each independently enabled or disabled.

Schedule Configuration Options

- Schedule Type — Choose Daily (runs every day) or Weekly (select specific days M/T/W/T/F/S/S)
- Start Time — The time (HH:MM) when the motor should turn ON
- End Time — The time (HH:MM) when the motor should turn OFF
- Is Cyclic — Check this box to enable repeating ON/OFF cycles within the scheduled time window
- Enable / Disable toggle — Green toggle to activate or deactivate a schedule without deleting it
- + Add Schedule — Tap to create a new schedule entry
- Delete — Remove a schedule permanently

Cyclic Scheduling (Detailed)

When "Is Cyclic" is checked, additional ON duration and OFF duration fields appear. Instead of running continuously from Start Time to End Time, the motor will repeatedly cycle ON and OFF within that time window.

How Cyclic works: Suppose you set Start Time = 06:00, End Time = 18:00, ON duration = 30 minutes, OFF duration = 15 minutes. The motor will turn ON at 06:00, run for 30 minutes, turn OFF at 06:30, wait 15 minutes, turn ON again at 06:45, run for 30 minutes, turn OFF at 07:15, and so on — repeating this 30-on / 15-off cycle until 18:00.

- ON Duration (Hours : Minutes) — How long the motor runs in each cycle
- OFF Duration (Hours : Minutes) — How long the motor pauses between cycles
- Restart after power resumption — If checked, the schedule resumes automatically after a power outage

> **Tip:** Cyclic scheduling is ideal for irrigation pumps that need intervals (e.g., 30 min on, 15 min off) to prevent motor overheating or allow water levels to recover. It is also useful for aerators, cooling systems, or any equipment that benefits from duty-cycle operation.

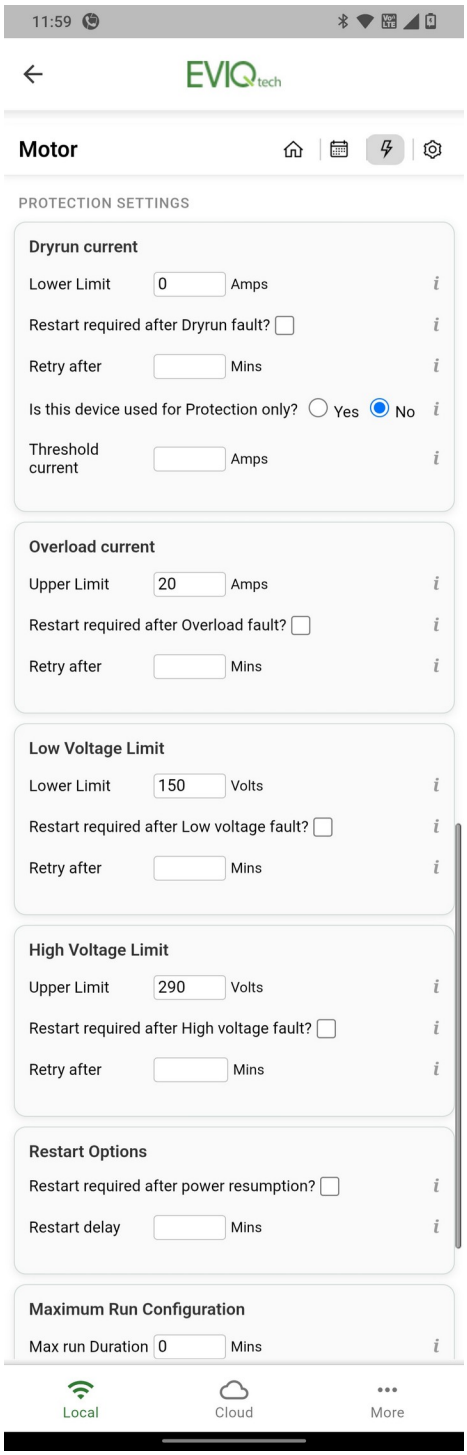

Figure 7.4a — Daily Schedule configuration

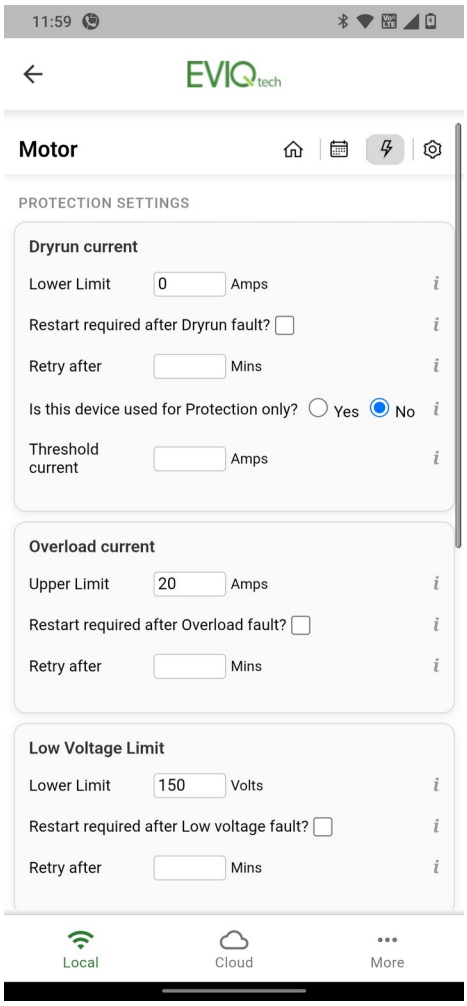

Figure 7.4b — Weekly Cyclic Schedule with ON/OFF duration fields

> **Note:** The Cloud scheduling interface (Section 8.7) is identical in functionality. Schedules configured via Cloud or Local are written directly to the device.

7.5 Protection Settings

The Protection page provides comprehensive motor and electrical protection. Tap the Lightning icon in the navigation bar to access it. Each protection type can be independently configured and has an info (i) button for on-screen guidance.

Dry-Run Protection (Under-Current)

Protects against the motor running without load (e.g., pump running dry when the water source is empty). When the current drawn by the motor falls below the configured lower limit for more than 4 seconds (after a 7-second startup grace period), the device trips and disconnects the motor.

- Lower Limit (Amps) — Set the minimum current threshold. Set this slightly below the normal running current of your motor.

- Auto-restart — When enabled, the device automatically attempts to restart the motor after a configurable delay (in minutes). Useful when the water source may refill over time.
- Protection-only mode — For pass-through monitoring setups (Circuit 4) where the device monitors current but does not switch the load directly. The device reports the fault but does not disconnect.

Overload Protection (Over-Current)

Protects against excessive current draw, which can indicate a motor jam, mechanical blockage, bearing failure, or short circuit. When current exceeds the configured upper limit for more than 4 seconds (after a 7-second startup grace period to allow inrush current), the device trips.

- Upper Limit (Amps) — Set the maximum current threshold. Set this slightly above the normal running current but below the motor's rated maximum.
- Auto-restart — Use with caution for overload; repeated overloads may indicate a mechanical problem that requires physical inspection.

Voltage Protection

Protects equipment from dangerous voltage fluctuations. The device continuously monitors mains voltage and trips within 7 seconds if voltage goes outside the configured safe range.

- Low Voltage Limit — Default 150V. Motor trips if mains voltage drops below this value. Low voltage causes motors to draw excessive current, leading to overheating and potential winding damage.
- High Voltage Limit — Default 290V. Motor trips if mains voltage exceeds this value. High voltage can cause insulation breakdown and immediate motor damage.
- Auto-restart (Low V) — Automatically reconnects when voltage returns to normal range, after the configured delay.
- Auto-restart (High V) — Separate auto-restart setting for high voltage events.

Additional Protection Settings

- Restart after power resumption — When enabled, the motor automatically restarts after a complete power outage (blackout). Useful for unattended installations like farm pumps or sump pumps.
- Restart delay (Mins) — Wait time after power returns before restarting the motor. Allows the power supply to stabilize and prevents rapid on-off cycling. Recommended: 2–5 minutes.
- Max run Duration (Mins) — Absolute maximum runtime regardless of other settings. Acts as a safety backstop (e.g., if a float switch fails). Set to 0 to disable.

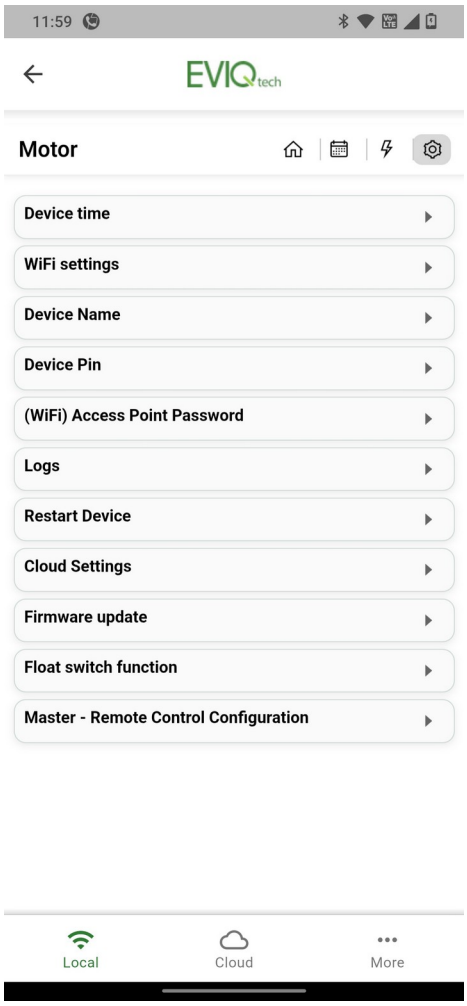

Figure 7.5 — Protection Settings: voltage, restart, max run

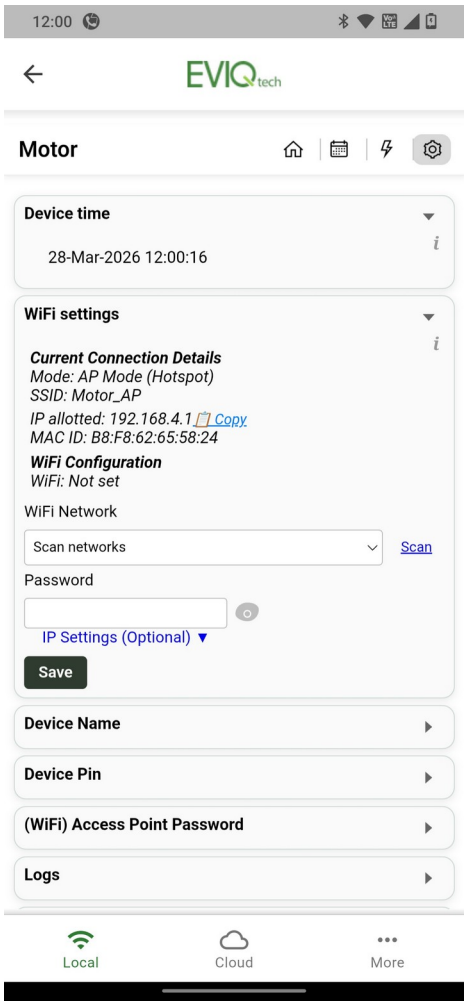

Figure 7.6 — Protection Settings: Dry-run, overload, threshold, protection-only mode

Fault Detection Timing and Delays

The SwiGO SuperSmart uses specific timing sequences to distinguish genuine faults from normal operating transients:

- Startup grace period (7 seconds) — When the motor is first switched ON, current readings are ignored for 7 seconds. This allows the motor's inrush current (which can be several times the normal running current) to settle down. Both dry-run and overload detection begin only after this grace period.
- Fault confirmation (4 seconds) — After the startup grace period, if a dry-run or overload condition is detected, the device waits for 4 continuous seconds to confirm it is a genuine fault and not a momentary spike or dip.
- Voltage fault timing (7 seconds) — Voltage faults are detected within 7 seconds. If the voltage exceeds the high limit or falls below the low limit and remains outside the safe range for 7 seconds, the device trips.
- LED blink duration (6 seconds) — When a fault is detected and the device trips, the fault LEDs blink rapidly for 6 seconds to alert the user. After blinking stops, the LEDs remain in their fault state until the fault is cleared or auto-restart occurs.

- Retry after (delay timer) — When auto-restart is enabled, the ‘Retry after’ field specifies the delay in minutes before the device attempts to restart. If the fault persists, the device trips again and waits for another retry cycle. This continues within the scheduled time period only — if the retry time falls outside the scheduled window, the device will not restart.

> **Note:** Tap the (i) icon next to each setting in the app or browser for built-in contextual help text.

7.6 Settings Page (Gear Icon)

The Settings page provides access to all device configuration options. Tap the Gear icon in the navigation bar.

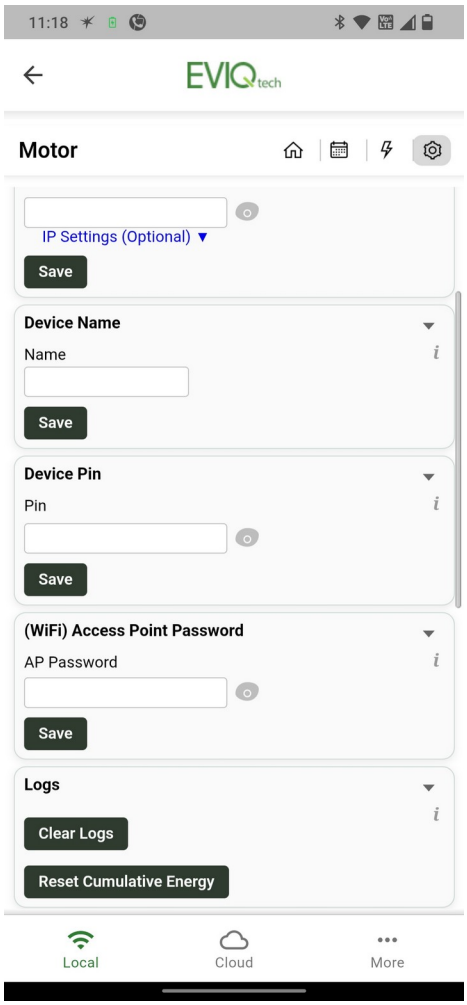

Figure 7.7 — Settings Page: Main menu overview

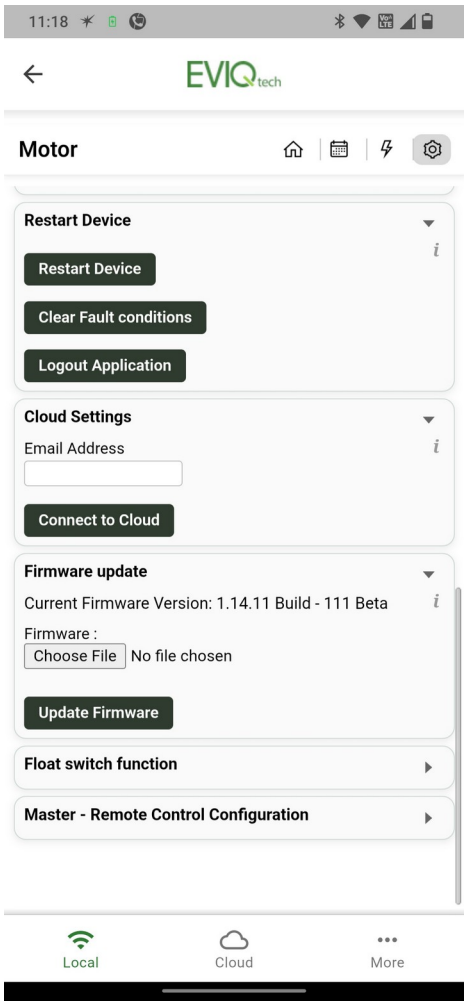

Figure 7.8 — Settings: WiFi configuration, Device Time, IP settings

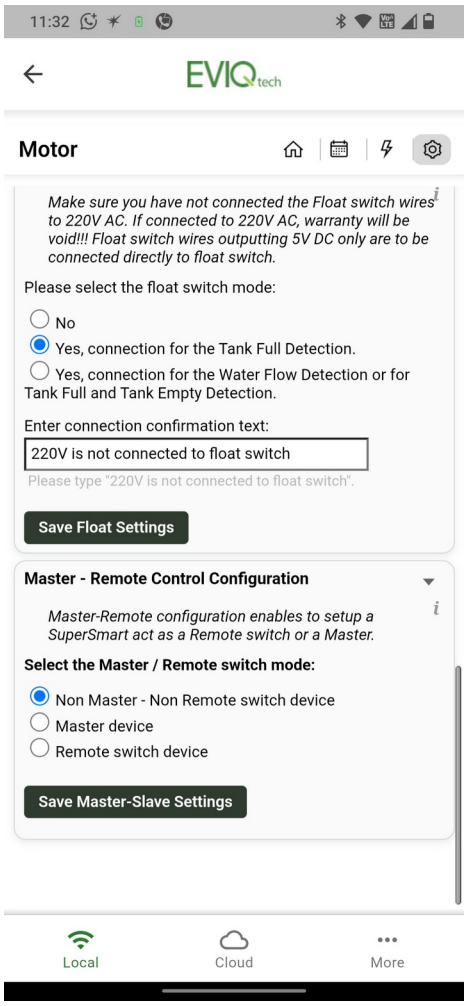

Figure 7.9 — Settings: Device Name, PIN, AP Password, Logs

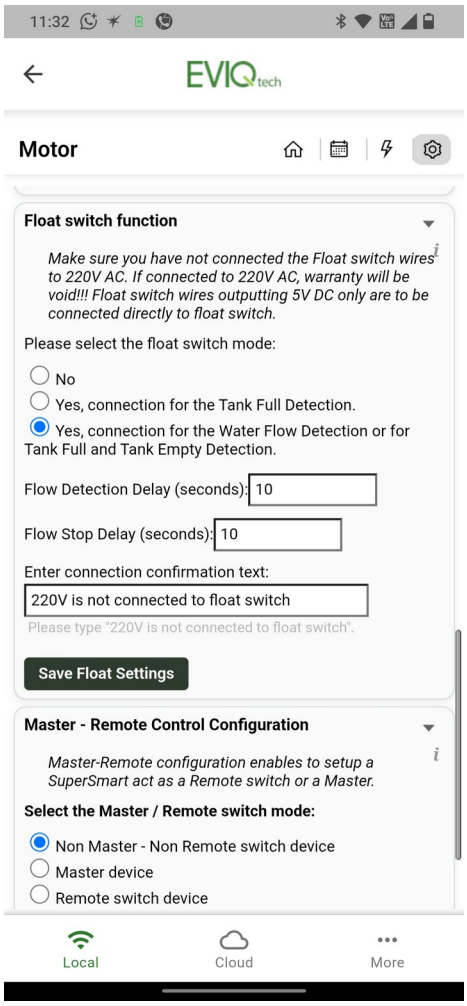

Figure 7.10 — Settings: Cloud, Firmware update, Float Switch, Master-Remote

- Device time — View the current device clock and sync it with your phone.
- WiFi settings — View current connection details (Mode, SSID, IP, MAC). Change WiFi network, scan for available networks, set a static IP address.
- Device Name — Rename the device (e.g., Motor, Pump). After renaming, you must reconnect to the new AP name.
- Device PIN — Change the 4-digit security PIN.
- AP Password — Change the password for the device's own WiFi Access Point broadcast.
- Logs — View recent activity logs. Clear Logs to reset history. Reset Cumulative Energy to zero the kWh meter.
- Restart Device — Soft reboot. Clear Fault Conditions (override a fault trip without waiting for the retry timer — also overrides Manual Stop during a scheduled run). Logout Application.
- Cloud Settings — Enter or change the cloud email address and connect/disconnect from EVIQtech Cloud.
- Firmware update — Shows current firmware version (e.g., 1.14.11 Build 111). Upload and apply OTA firmware updates received via email.

- Float switch function — Configure float/flow switch modes (see Section 7.7 below).
- Master–Remote Control — Configure master/remote device relationships (see Section 7.8 below).

> **Tip:** Use ‘Clear Fault Conditions’ under Restart Device if a schedule is disrupted by a fault and you do not want to wait for the retry delay. This button also overrides a Manual Stop during a scheduled run.

7.7 Float Switch & Flow Switch Settings

The SwiGO SuperSmart includes a 5V DC output for connecting a float switch or flow switch. This feature is configured at the bottom of the Settings page under Float switch. It enables automatic pump control based on water level conditions.

Understanding Float Switches (2-Wire and 3-Wire)

The SwiGO SuperSmart can work with both 2-wire and 3-wire float switches.

- 2-Wire Float Switch — Has a single NO (Normally Open) or NC (Normally Closed) contact. Suitable when you need only one detection mode — either Tank Full or Tank Empty. Connect the two wires directly to the 5V DC terminals (Red and Black wires).
- 3-Wire Float Switch — Has a common wire shared between two internal contacts (NO and NC). Supports both Tank Full and Tank Empty detection depending on which pair of wires you connect.

For a 3-wire float switch, depending on which pair of wires you connect to the 5V DC terminals, you get different detection behavior:

- Wire Pair A (Tank Empty detection) — Connect the two wires that have continuity (circuit closed) when the float is hanging down (tank empty). When the tank fills and the float rises, this pair opens.
- Wire Pair B (Tank Full detection) — Connect the two wires that have continuity when the float rises (tank full). When the tank is empty and the float hangs down, this pair has no continuity.

> **Tip:** For a 3-wire float switch: to identify which wire pair to use, disconnect the float switch, hold it so the float hangs down (simulating empty tank), and use a multimeter to check continuity between each pair of wires. The pair that shows continuity with the float hanging down is Wire Pair A (Tank Empty). The pair that shows continuity with the float raised up is Wire Pair B (Tank Full). For a 2-wire float switch: simply connect both wires to the 5V DC terminals and select the appropriate mode.

Mode: No (Default)

Float switch functionality is disabled. The device operates on timer and manual control only. This is the factory default setting.

Mode: Tank Full Detection (NO Contact)

Use this mode to automatically stop the pump when the tank is full. Connect Wire Pair B (continuity when float rises / tank full) to the 5V DC terminals.

How it works: When empty, the float hangs down and the circuit is open — the pump can run via timer, schedule, or manual control. As the tank fills and the float rises, the circuit closes and the device immediately stops the pump.

- Wire pair to use: Pair B — continuity when float is UP (tank full)
- Pump stops when: Float rises (tank full) — circuit closes
- Pump starts: Via timer, schedule, or manual ON only
- Use case: Overhead tank filling — pump runs until tank is full, then stops automatically

Mode: Tank Empty Detection (NO Contact)

Use this mode to detect when the tank is empty and control the pump accordingly. Connect Wire Pair A (continuity when float hangs down / tank empty).

How it works: When empty, the float hangs down and the circuit is closed — the device can start the pump. As the tank fills and the float rises, the circuit opens and the pump stops. When water drops again, the float falls and the pump can restart automatically.

- Wire pair to use: Pair A — continuity when float is DOWN (tank empty)
- Pump runs when: Float hangs down (tank empty) — circuit closed
- Pump stops when: Float rises (tank full) — circuit opens
- Auto-restart: Yes — pump restarts when float drops again (tank empties)
- Use case: Fully automatic tank fill-and-stop cycle with no scheduling needed

Flow Switch Mode

A flow switch (paddle-type) can be connected to detect water flow in the pipe. When water flows, the switch remains closed and the pump runs. When flow stops (e.g., pipe blockage, dry pipe), the switch opens and the pump stops. This provides flow-based dry-run protection.

- Switch type: Paddle or flow switch — closed when water flows, open when no flow
- Use case: Dry-run protection based on actual water flow rather than current sensing

> **Note:** Flow switch mode uses the NO Contact setting. The flow switch does not have an NC (Normally Closed) option.

Delay Settings

When a float / flow switch mode is selected, two delay fields appear:

- Flow Detection Delay (seconds) — How long the device waits after detecting a switch state change before acting. Default: 10 seconds. Prevents false triggers from water sloshing or momentary float bouncing.

- Flow Stop Delay (seconds) — How long after the switch opens before the pump is stopped. Default: 10 seconds. Provides a buffer to confirm the condition is genuine.

A safety confirmation checkbox — "220V is not connected to float switch" — must be acknowledged before saving.

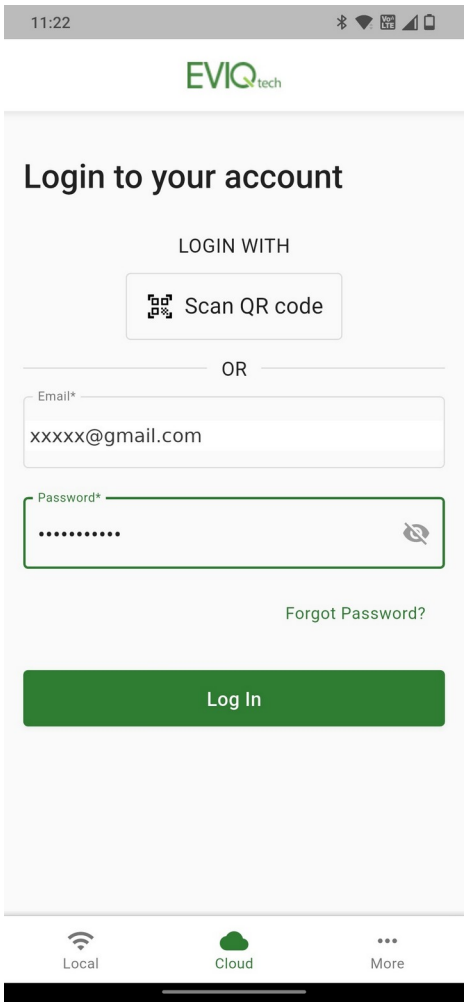

Figure 7.11 — Float Switch: Tank Full Detection with delay settings

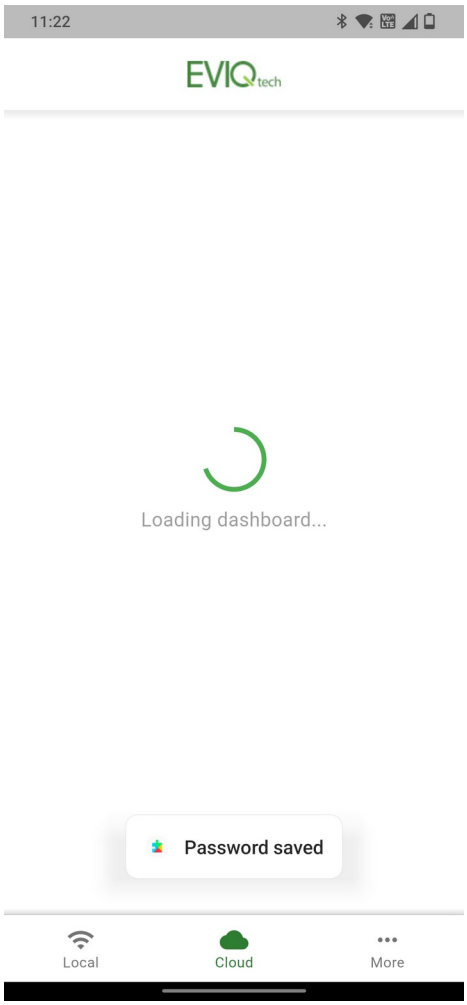

Figure 7.12 — Float Switch: Flow / Tank Full+Empty Detection mode

Wiring Summary

Mode	Wire Pair / Type	Float Position for Continuity	Pump Action
Tank Full Detection	3-wire: Pair B 2-wire: NO type	Float UP (tank full)	Stops pump when full
Tank Empty Detection	3-wire: Pair A 2-wire: NC type	Float DOWN (tank empty)	Runs pump when empty, stops when full
Flow Switch	2-wire device	N/A — flow-based	Stops pump when no flow

> **WARNING:** Never connect the 5V DC float switch wires to 220V AC mains! Doing so will damage the device and void the warranty.

7.8 Master–Remote Control Configuration

The Master-Remote feature allows multiple SwiGO SuperSmart devices to work together. One device acts as the Master and controls one or more Remote devices. When the Master switches ON or OFF, it sends a command to all linked Remote devices to do the same.

Three modes are available:

- Non Master – Non Remote switch device (Default) — The device operates independently with no master-remote relationship.
- Master device — This device becomes the master. When it switches ON or OFF (via timer, schedule, or manual), all linked remote devices follow.
- Remote switch device — This device becomes a remote. It receives ON / OFF commands from its paired master device and follows them.

Remote Switching Method

When Master or Remote mode is selected, choose the communication method:

- MQTT Service — Uses the cloud (MQTT protocol) to relay commands between master and remote devices. Works over the internet — devices can be on different WiFi networks or locations.
- Local WiFi — Commands are sent directly over the local WiFi network. Both master and remote devices must be on the same WiFi network. Lower latency, no internet required.

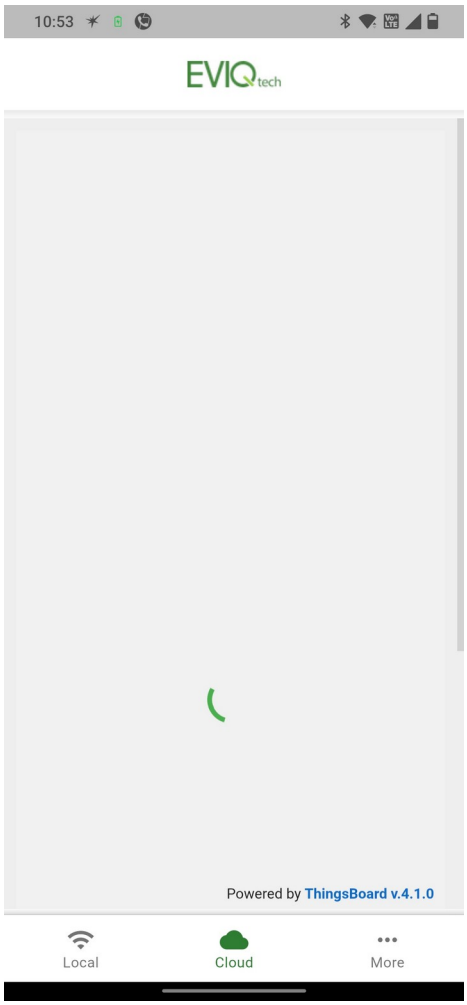

Figure 7.13 — Master device selected with MQTT and Local WiFi options

> **Tip:** Use Master-Remote when you need one switch to control multiple pumps, or when a single timer/schedule should operate equipment across different circuits (e.g., pump house and kitchen supply).

8. Cloud Dashboard

The EVIQtech Cloud (powered by ThingsBoard v4.1.0) provides remote monitoring and control from anywhere. The cloud dashboard can be accessed from any device at cloud.eviqtech.com once your device has been provisioned via Mode C (BLE pairing from the Android app).

8.1 Logging into the Cloud

For new users: Tap the "Create Account" or "Register" option on the Cloud login screen, enter your email and set a password. Once registered, use these credentials to log in.

For existing users: Enter your registered email and password, or scan a QR code to log in.

Step 1: Tap the "Cloud" tab at the bottom of the app, or visit cloud.eviqtech.com in any browser.
Step 2: New users: tap Register / Create Account, enter email, set password, and confirm.
Step 3: Existing users: enter your email and password, or scan a QR code.

> **Note:** The QR code login option allows quick access by scanning a QR code provided by your cloud administrator or generated from the ThingsBoard dashboard. This is useful for shared or kiosk installations.

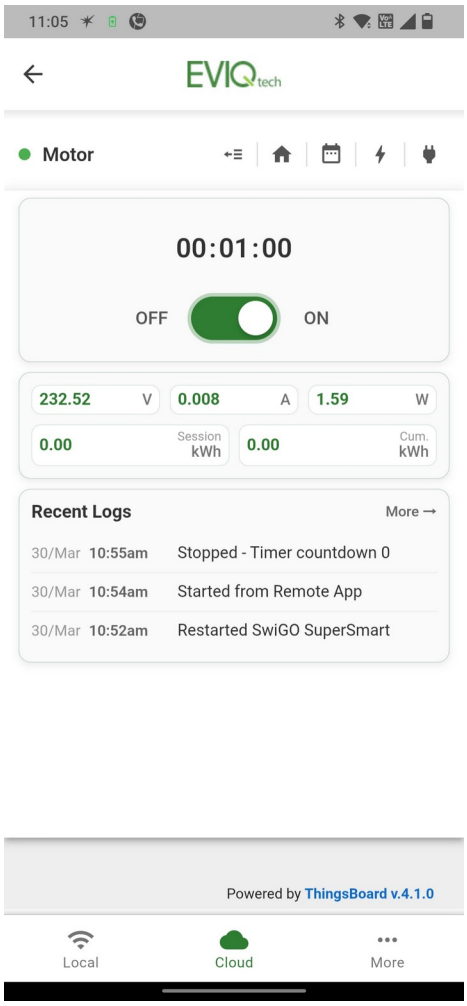

Figure 8.1 — Cloud login: Email + Password or QR code

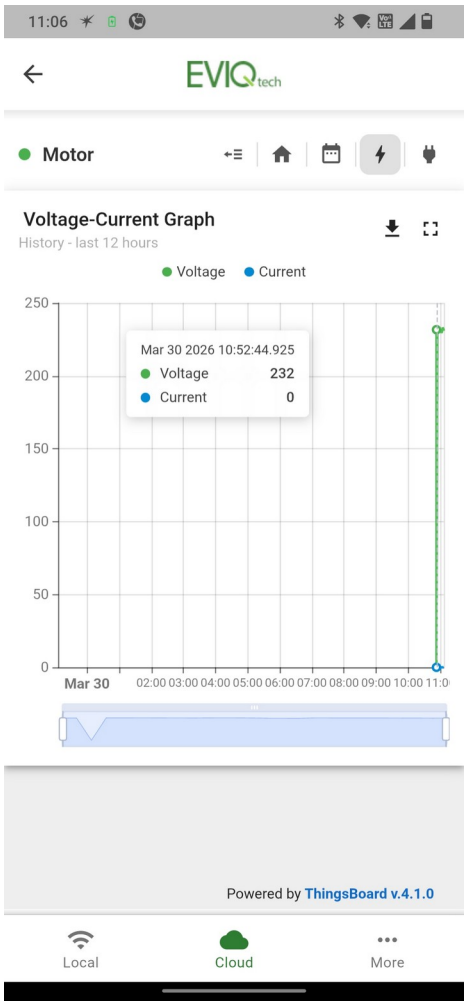

Figure 8.2 — Loading with password saved

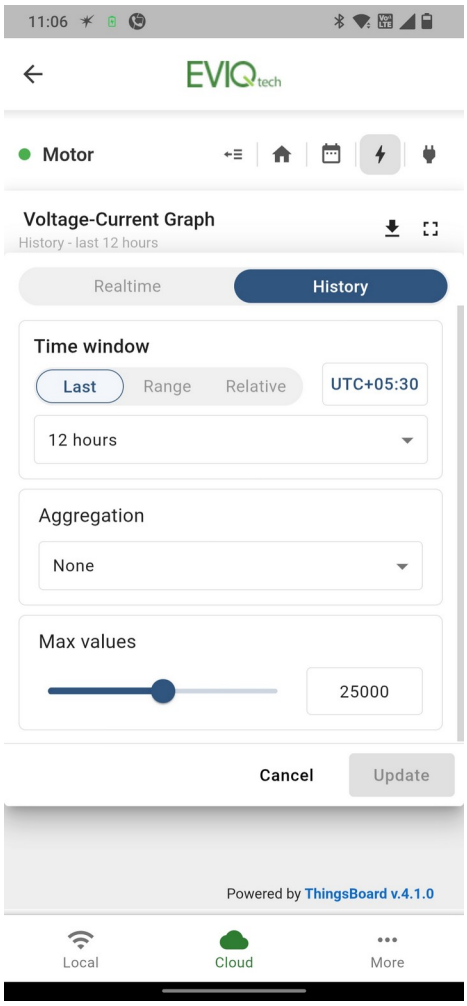

Figure 8.3 — Powered by ThingsBoard v4.1.0

8.2 Multi-Device Overview

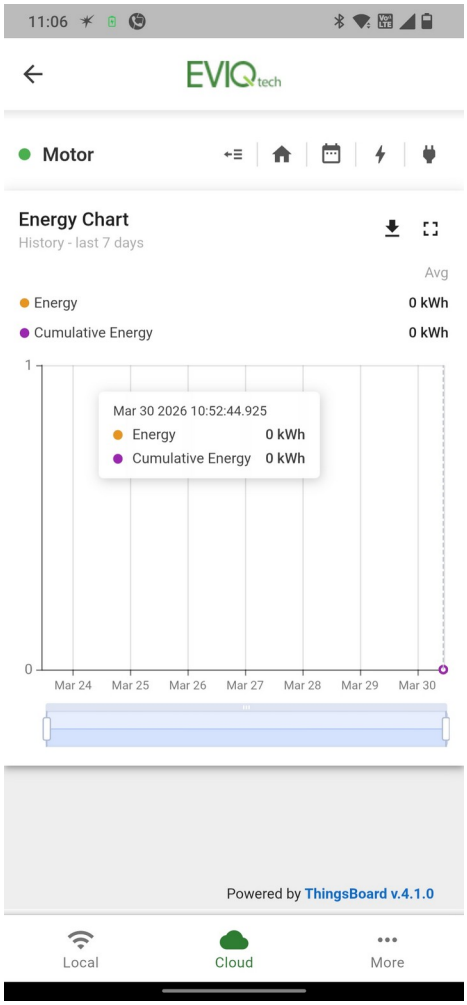

Figure 8.4 — Motor (online, 233V) and flowtest (offline)

- Green dot — Online and cloud-connected
- Grey dot — Offline or unreachable
- Quick toggle — ON / OFF directly from the list

8.3 Cloud Home — Remote Control

- Countdown Timer — Shows remaining time during timed operation
- OFF / ON Toggle — Remote switch from anywhere
- Live Readings — Real-time voltage, current and power
- Logs — Remote actions are logged as "Started from Remote App" to distinguish from local or physical button actions

8.4 Navigation Icons

- Settings / Filter — Cloud device config
- Home — Remote control panel

- Calendar — Cloud scheduling
- Lightning — Analytics and energy
- Plug — Protection status

8.5 Voltage-Current Analytics

- Realtime / History — Toggle between live and historical data
- Time window — Last, Range, or Relative
- Aggregation — None, Average, Min, Max
- Max values — Default 25,000 data points

8.6 Energy Chart

The Energy Chart displays cumulative energy consumption across configurable time ranges (hourly, daily, weekly, monthly). Useful for energy audits and usage tracking.

8.7 Cloud Scheduling

> **Note:** Scheduling in Cloud mode and Local mode are functionally identical. All schedules are written directly to the device and read back from the device. Any schedule you create or modify via the Cloud dashboard is stored on the device itself, and vice versa.

- + Add Schedule — Create new schedule
- Type — Daily or Weekly
- Start / End Time — Operating window for the schedule
- Is Cyclic — Enable repeating on/off cycles within the time window (see Section 7.4 for detailed explanation)
- Enable / Disable — Toggle schedule on or off without deleting

9. Browser Access (iOS, iPadOS, Desktop)

The EVIQtech Android app is available on Google Play. For all other platforms — iPhones, iPads, Macs, Windows PCs, and Linux — the SwiGO SuperSmart has a built-in web interface that can be accessed from any browser. No app installation is required.

> **Note:** A native iOS app is under development. Until it ships, iOS and iPhone users have full local access through the browser method described here.

9.1 Access via Local AP Mode (No Router Needed)

When the SwiGO SuperSmart is in AP mode (Access Point mode), it creates its own WiFi network. You can connect to it from any device and access the control interface through a web browser.

Step 1: Power on the SwiGO SuperSmart. If it is not connected to any WiFi network, it will automatically create its own AP within ~60 seconds.

Step 2: On your iPhone, iPad, laptop, or any device, go to WiFi Settings and connect to the network named SwiGOss_AP (or DeviceName_AP if you have already renamed the device).

Step 3: Open any web browser (Safari, Chrome, Firefox, Edge, etc.).

Step 4: In the address bar, type: http://192.168.4.1 and press Enter.

Step 5: If this is the first-time setup, the Initial Setup page appears — enter your Device Name and Security PIN (see Section 4.1). Otherwise, enter your existing PIN to unlock.

Step 6: You now have full access to the device dashboard, schedules, protection settings, float switch settings, and all other controls — identical to the Android app's Local tab.

> **Tip:** Bookmark http://192.168.4.1 (AP mode) and http://DeviceName.local (WiFi mode) for quick access. The session times out after 10 minutes of inactivity.

9.2 Access via Local WiFi Mode (Same Network)

Once the SwiGO SuperSmart is connected to your home or office WiFi router, you can access it from any device on the same network using a browser.

Step 1: Ensure your iPhone, iPad, laptop, or other device is connected to the same WiFi network as the SwiGO SuperSmart.

Step 2: Open any web browser.

Step 3: In the address bar, type the device's address. You can use either:

- mDNS name: http://DeviceName.local (e.g., http://motor.local)
- IP address: http://[IP assigned by router] (e.g., http://192.168.0.120) — check your router's DHCP client list if needed

Step 4: The local web interface loads. Enter your PIN to unlock and control the device.

> **Note:** The mDNS name (DeviceName.local) works on most modern devices including iPhones, iPads, Macs, and Windows 10/11. If it does not resolve, use the IP address instead.

9.3 What You Can Do via Browser

The browser interface provides the same functionality as the Android app's Local tab:

- View real-time power monitoring (voltage, current, power, energy)
- Turn the load ON / OFF manually
- Set and manage timer duration
- Configure schedules (daily, weekly, and cyclic)
- Adjust protection settings (dry-run, overload, voltage limits)
- Configure float switch and flow switch modes
- Set up Master-Remote control
- Change device name, PIN, and WiFi settings

> **Note:** Cloud features (remote access from outside the local network) require either the Android app or the EVIQtech Cloud dashboard at cloud.eviqtech.com. Cloud provisioning of a new device currently requires the Android app.

10. Troubleshooting

10.1 Device Not Found During BLE Scan

- Ensure BLE mode is active: Hold Green + Yellow buttons 5s until blue LED blinks
- Bluetooth enabled on phone
- Move closer to device (within 5 meters)
- Location permission granted to the app
- Restart device and retry

10.2 WiFi Connection Fails

- Double-check WiFi password
- Confirm 2.4 GHz network (5 GHz not supported)
- Router online and in range
- Restart router and device

10.3 Cloud Connection Not Working

- Verify cloud email is correct
- Internet connection active
- Device connected to WiFi first (check Local tab)
- Log out and back in on Cloud tab
- Force-close and reopen app if stuck on Loading

10.4 Device Offline in Cloud

- Device powered on and WiFi connected locally
- Internet connection working
- Update WiFi via Settings if network changed
- Restart or power-cycle the device

10.5 Returning to AP Mode

If WiFi is unavailable, the device auto-returns to AP mode in approximately 15 seconds. To force it manually:

- Hold Violet + Red buttons 10 seconds until blue LED lights up

10.6 Factory Reset

- Hold Yellow + Blue + Red buttons 20 seconds until blue LED lights

> **Important:** Factory reset erases everything: WiFi, name, PIN, cloud link, protection thresholds, schedules. You will need to perform the full Initial Setup (Section 4.1) again.

10.7 PIN Forgotten

The SwiGO SuperSmart PIN is user-defined and is never the default "1234" after Initial Setup. If you forget your PIN:

Step 1: Perform a factory reset (Section 10.6): hold Yellow + Blue + Red for 20 seconds.

Step 2: The device returns to its fresh state and creates SwiGOss_AP.

Step 3: Perform the Initial Setup again (Section 4.1) to set a new Device Name and PIN.

Step 4: If you were using cloud, re-pair via BLE (Section 6) to re-link the device to your cloud account.

10.8 iOS / Browser Interface Not Loading

- Confirm you are connected to the correct WiFi (SwiGOss_AP in AP mode, or your home WiFi if the device is configured)
- Try the IP address instead of the .local name: http://192.168.4.1 (AP) or the router-assigned IP (WiFi mode)
- Disable mobile data temporarily — some phones prefer cellular over the device's AP
- Clear browser cache and reload
- If using AP mode, confirm your device has not automatically disconnected from SwiGOss_AP (some phones prompt "No internet — use this network?"; choose to keep it)

11. Support and Contact

For technical support, warranty inquiries, or feedback:

Contact	Details
Website	www.eviqtech.com
Email	info@eviqtech.com
Cloud dashboard	cloud.eviqtech.com
Android app	Via the "More" tab in the EVIQtech app

Thank you for choosing EVIQtech!