



FOGSTAR**DRIFT**

LITHIUM LEISURE BATTERY RANGE

USER MANUAL
VERSION 1



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INTRODUCTION

Fogstar is a leading choice for anyone seeking reliable power solutions in the UK. That position is built on straight-up reliability, solid engineering, and products that keep performing wherever they're deployed. Campervans, marine systems, commercial builds, and off-grid cabins all operate under the same requirement, consistent and predictable power delivery.

Our LiFePO₄ range has grown into one of the most capable and adaptable on the market. Whether you're pairing with advanced Victron systems or building a tough standalone setup, Fogstar provides solutions that scale cleanly and integrate without the fuss.

The Fogstar Drift range has been engineered around three core principles: dependable performance, sensible engineering, and long-term reliability. Whether you choose the Drift ECO, Fogstar Drift, or the latest Drift Gen 2 range, you'll benefit from premium LiFePO₄ technology, intelligent battery management, and UK-based technical support when you need it. Backed by long-term warranties and trusted across thousands of installations, Fogstar Drift batteries are designed to deliver reliable power for campervans, motorhomes, marine systems, off-grid installations, and energy storage applications alike.

As a UK-based manufacturer, our customer service team is just a phone call away. They can assist with setup, troubleshooting and ongoing operational queries;

☎ 01527 757980

✉ customerservice@fogstar.co.uk



ARRIVAL CONDITION

In compliance with UN38.3 shipping regulations, your battery will arrive with a State of Charge (SoC) of approximately 30% or less. While this is below the typical 50% recommended for storage, it accounts for potential parasitic loads from connected appliances in real-world use cases.

Discharge is disabled by default.

To enable discharge on Drift ECO and Fogstar Drift Batteries, use the main dashboard of the Fogstar Drift App, you'll find two key toggles: 'Charging' and 'Discharging'.

- Charging [OFF]: Prevents the battery from accepting charge.
- Discharging [OFF]: Prevents the battery from supplying power.

To enable discharge at the battery on the Fogstar Drift Gen 2:
Press the button on the front of the battery until the white LED illuminates
You may hear an audible click as the internal relay (MOSFET) engages

Important:

- If you're reading 0 – 2V at the terminals, discharge is likely still disabled - either via the button or within the Fogstar Drift App.
- Enabling discharge directly impacts terminal voltage. Always verify discharge status before system integration.

PRE-INSTALLATION

It is recommended to keep the discharge turned off on the battery until the installation has been completed. This is to enable a spark-free installation - Arcing can also damage the nickel coating.

For the terminal bolts, a torque of 6Nm is recommended, but should be kept within a range of 4Nm (minimum) to 8Nm (maximum).

QUICK START GUIDE

✓ Installation Orientation & Location

Mounting Orientation:

The battery can be installed in any orientation except upside down.

Vehicle Installations:

- The battery must be securely mounted to prevent movement during transit.
- Specialist Drift Battery Brackets are available and recommended for safe, vibration-resistant mounting.
- Ensure the battery is accessible for disconnection or removal in an emergency.
- Keep appropriate tools on hand, including cable cutters, a ratchet, and the correct spanner/socket for M8 hardware.

Thermal Environment:

- Install the battery in a space with moderate, stable temperatures - avoid exposure to extremes.
- If mounting on a metal vehicle floor, use insulation or an air gap to prevent thermal bridging.
- The integrated heating system will manage low ambient temperatures automatically when charge is applied, protecting the cells during cold conditions.

⚙️ Electrical Connections & Torque Specs

Terminals:

- The Drift Gen2 uses M8 terminals.
- A maximum of two ring terminals may be connected per battery post.

Required Hardware (Included):

- M8 bolts
- Flat washers
- Spring washers

Connection Stack (Top to Bottom):

- a. Ring terminal (flat against the battery post)
- b. Flat washer
- c. Spring washer
- d. M8 bolt

Torque Specification:

- Tighten bolts to between 4 Nm and 8 Nm, depending on ring terminal type and system design.
- Do not overtighten.
- Important: Allow terminals to cool to ambient temperature before tightening if they have been under recent load.

QUICK START GUIDE

Safety & Commissioning Guidelines

Switches Off First:

- Ensure the battery's on/off switch is in the OFF position before connecting any cables.
- Your system's main isolator must also be OFF.

Polarity Check:

- Double-check all polarity before final connections.
- Incorrect polarity may cause irreparable damage to the battery and connected devices.

Short Circuit Prevention:

- Take extreme care not to bridge the positive and negative terminals.
- A short circuit can cause severe system damage.

Cable Management:

- Do not stack more than two ring terminals per post.
- Use busbars or a DC distribution block to handle multiple connections (chargers, inverters, etc.).
- Excessive connections per terminal increase contact resistance and risk of overheating under high current.

Emergency Preparedness

- Ensure installation allows for quick access and disconnection of the battery in case of emergency.
- Keep tools nearby that are capable of quickly isolating or cutting power if required.

BMS OPERATION

The Battery Management System (BMS) is designed to monitor and protect the battery pack against unsafe operating conditions. When any of the following conditions are detected, the BMS will automatically engage protective measures to prevent damage to the battery and connected systems.

Low Temperature Charging (UTC)

Condition: Charging initiated at or near 0°C

Action: Charging is temporarily paused. Incoming current is redirected to activate internal heating pads.

Recovery: Charging resumes automatically once internal cell temperature reaches $\geq 5^{\circ}\text{C}$.

Note: This is a normal behaviour to protect cell chemistry in cold environments.

High Temperature Discharging (OTD)

Condition: Discharge attempt detected while internal temperature $> 75^{\circ}\text{C}$

Action: Discharging is disabled.

Recovery: Discharging resumes automatically once temperature returns to a safe range.

Low Temperature Discharging (UTD)

Condition: Discharge attempt detected while temperature $< -20^{\circ}\text{C}$

Action: Discharging is disabled to prevent cell damage.

Recovery: Resume discharging once battery temperature is within safe operating limits.

Pack Over-Voltage (POV)

Condition: Total pack voltage exceeds the maximum allowable threshold

Action: Charging is disabled to prevent overcharge.

Recovery: Discharge the battery until pack voltage returns to a safe level.

Pack Under-Voltage (PUV)

Condition: Total pack voltage falls below the minimum allowable threshold

Action: Discharging is disabled to prevent deep discharge.

Recovery: Charge the battery until voltage returns to a safe range.

Short Circuit (SCD)

Condition: Sudden, high-current event indicative of a short circuit

Action: Both charge and discharge are disabled immediately.

Recovery:

1. Inspect the system for wiring faults, shorts, or damaged components.
2. If caused by an inverter with high inrush current (e.g., charging capacitors), disconnect the load and reintroduce it using a pre-charge resistor.

 **Warning:** Do not reuse the battery until the fault source is identified and resolved.

BMS OPERATION

Over Current Charging (OCC)

Condition: Charging current exceeds 300A

Action: Charging is disabled to protect the system.

Recovery: Reduce the charging current to within the specified limit.

Over Current Discharging (OCD)

Condition: Discharging current exceeds 300A

Action: Discharging is disabled.

Recovery: Reduce the load to fall within the allowable current range.

Cell Under-Voltage (CUV)

Condition: One or more individual cells fall below the minimum voltage threshold

Action: Discharging is disabled to prevent cell damage.

Recovery: Charge the battery to rebalance and restore cell voltages.

High Temperature Charging (OTC)

Condition: Charging initiated while internal temperature > 55°C

Action: Charging is disabled.

Recovery: Charging resumes automatically once internal temperature falls to a safe level.

Over-Discharge Protection

Your battery is fitted with a Battery Management System (BMS) that automatically activates over-discharge protection at 11.6V. This prevents damage from being discharged too deeply during normal use.

However, it's important to understand the limits of the BMS. Even in deep sleep mode, the BMS itself needs a small amount of power to keep essential functions alive. On top of this, lithium cells have a self-consumption rate of around 1-2% of charge per month, regardless of use. The BMS cannot stop this natural self-discharge, and it is therefore impossible for it to protect the battery from over-discharge indefinitely if the battery is left in storage without recharging.

If the battery's voltage falls to 7V, the Bluetooth functionality will shut down and the battery will stop communicating. At this stage, the battery must be returned to Fogstar for revival.

⚠ Important: Allowing your battery to reach 7V is considered improper maintenance and is not covered under warranty. Any revival work required in these circumstances will be chargeable.

PARALLEL CONNECTIONS

Parallel Connection (Increased Capacity)

Purpose: To increase system capacity (Ah) while maintaining a 12.8V nominal voltage.

How to connect:

- Connect all positive terminals together → one common positive node
- Connect all negative terminals together → one common negative node

What increases:

- Capacity: Additive (e.g. $2 \times 230\text{Ah} = 460\text{Ah}$)
- Current Output: Additive (e.g. $2 \times 300\text{A} = 600\text{A peak}$)
- Voltage: Remains 12.8V nominal

Example:

Two Drift Fogstar Drift Gen2 230Ah batteries in parallel = 460Ah, 600A peak, 12.8V system

Best Practice:

- For 2 batteries: take the positive feed from Battery A and the negative feed from Battery B to balance load.
- For 3 or more: use a dedicated busbar system, with identical cable lengths and sizes from each battery to the busbar.
- Maximum: 16 batteries in parallel

Important:

- All batteries must be at the same voltage (within 0.05V) before connecting.
- Use the Fogstar App to address and monitor each unit.
- Install data-link cables to enable CANbus communication across parallel units.

SERIES CONNECTIONS

We are one of the only manufacturers to offer series Victron support. All Fogstar drift Gen2 Batteries are shipped with parallel support as standard, but if you would like series communication support, please get in touch with our team and we will happily talk you through this configuration process.

Purpose: To increase system voltage while maintaining the same capacity.

How to connect:

- Connect the positive terminal of Battery 1 to the negative terminal of Battery 2
- The negative of Battery 1 becomes system negative
- The positive of Battery 2 becomes system positive

What increases:

- Voltage: Additive (e.g. $2 \times 12.8V = 25.6V$)
- Capacity & Current Output: Unchanged (e.g. still 230Ah, 300A peak)

Example:

Two Fogstar Drift Gen2 230Ah batteries in series =
230Ah, 300A peak, 25.6V system

Best Practice:

- Use only identical batteries (same brand, model, capacity, and age).
- Allow batteries to fully charge and settle within 0.05V of each other before connecting.
- Use for 24V or 51.2V system builds.

Limits:

- Maximum 4 batteries in series
- Do not configure systems above 51.2V nominal



Critical Reminders for Parallel and Series Connections

- Do not mix batteries of different models, brands, voltages, or capacities in series.
- Always check voltage balance before making physical connections.
- Use identical cable lengths and cross-sections to ensure equal resistance paths, especially in parallel configurations.
- When building large banks, always use fused links and system-level protection (e.g. busbar fusing, DC isolators).

THE DRIFT RANGE

The Fogstar Drift range offers reliable LiFePO4 battery solutions for everything from everyday leisure use to demanding off-grid installations, with each range designed to deliver the right balance of performance, features, and value for different applications.

Drift ECO

A straightforward, great-value lithium solution for everyday leisure and light off-grid use.

Fogstar Drift

Enhanced performance with heating functionality and extended warranty coverage

Fogstar Drift Gen2

Our most advanced leisure battery range, combining premium performance, smart integration, and rugged durability for demanding off-grid applications



Drift ECO



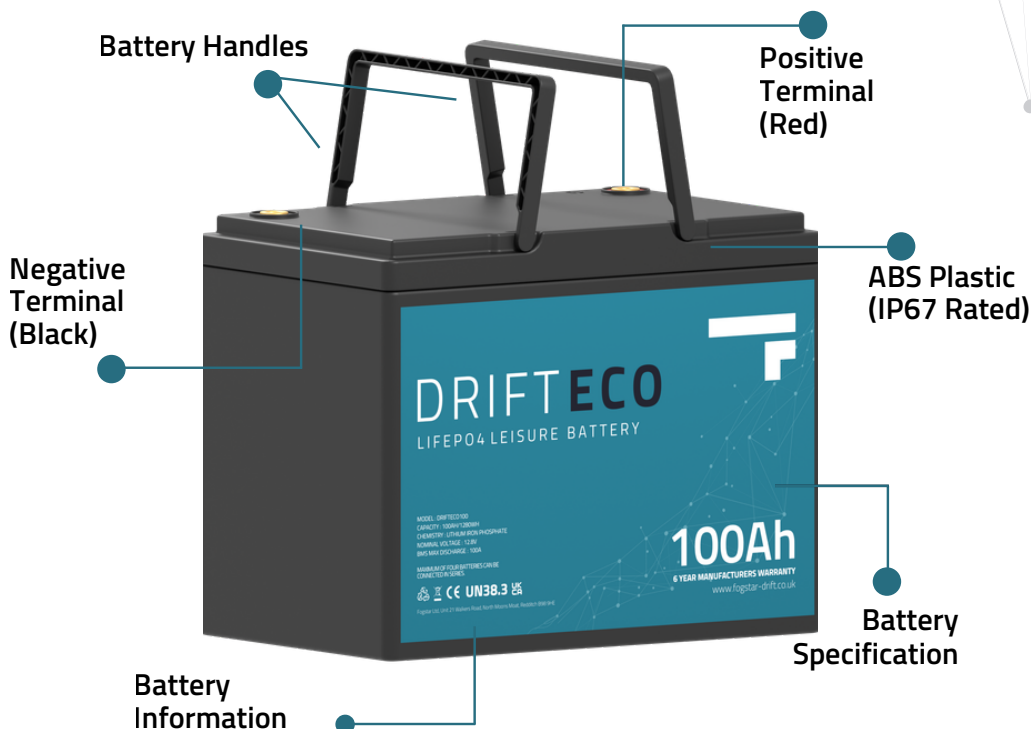
Fogstar Drift



Drift Gen2

	LiFePO4 Cells	✓	✓	✓
	BMS	250A	250A	300A
	Heating	—	✓	✓
	Bluetooth	✓	✓	✓
	IP67 Rated	✓	✓	✓
	Victron Integration	—	—	✓
	Active Balancer	PASSIVE BALANCING	PASSIVE BALANCING	✓ BUILT IN
	UK Based Support	✓	✓	✓
	RS485 / CAN Ports	—	—	✓
	Warranty	6 YEAR WARRANTY	10 YEAR WARRANTY	10 YEAR WARRANTY

DRIFT ECO



BATTERY MONITORING

The Fogstar Drift ECO is a reliable, cost-effective solution for everyday off-grid power needs. This updated version now includes Bluetooth connectivity, allowing you to monitor the battery directly from your smartphone using the Fogstar app. You can monitor state of charge (SOC) and key battery parameters using the following methods:

- Fogstar App: View live battery data via your mobile device, including SOC, voltage, current, temperature, and protection status.
- Battery Shunt: A hardware device installed in-line with the battery cables. It measures current flow and calculates remaining capacity based on charged and discharged amp-hours.
- Battery Monitor: A dedicated display unit providing a clear overview of battery parameters such as SOC, voltage, current, temperature, and cycle count.

ABOUT YOUR JBD BMS

Short Circuit Protection	Yes
Temperate Protection	Yes
Over Current Protection	Yes
Over Discharge Protection	Yes

CHARGING PARAMETERS

Your battery should be charged using a lithium iron phosphate (LiFePO₄) battery charger.

Bulk Charge : 14.2V - 14.4V

Float Charge : 13.5V - 13.8V

DRIFT **ECO**

TEMPERATURE **TOLERANCES**

- **Charging:** This battery does not contain an internal heating element for low-temperature operation. To ensure optimal battery health and lifespan, avoid charging the battery below 0°C (32°F).
- **Discharging:** The Drift ECO battery performs well in cold environments, with a discharge temperature range down to -20°C (-4°F).
- **JBD BMS Protection:** Even though charging at low temperatures is not recommended, the integrated JBD BMS safeguards the battery by preventing charging if the temperature falls below the safe operating range. This BMS protection ensures the battery is not damaged by accidental charging in cold conditions.

BATTERY **WARRANTY**

- Fogstar offers a 6 year warranty on all Fogstar Drift ECO Leisure batteries.
- Warranties only apply to the original owner and are non-transferrable.
- Fogstar will verify your purchase prior to processing any warranty claims or returns.
- Please contact us at customerservice@fogstar.co.uk as soon as you encounter any issues.
- Our warranty does not cover items that have been damaged due to gross negligence, normal wear and tear, damage due to accident or collision, abuse or incorrect installation.

SERIES & **PARALLEL**

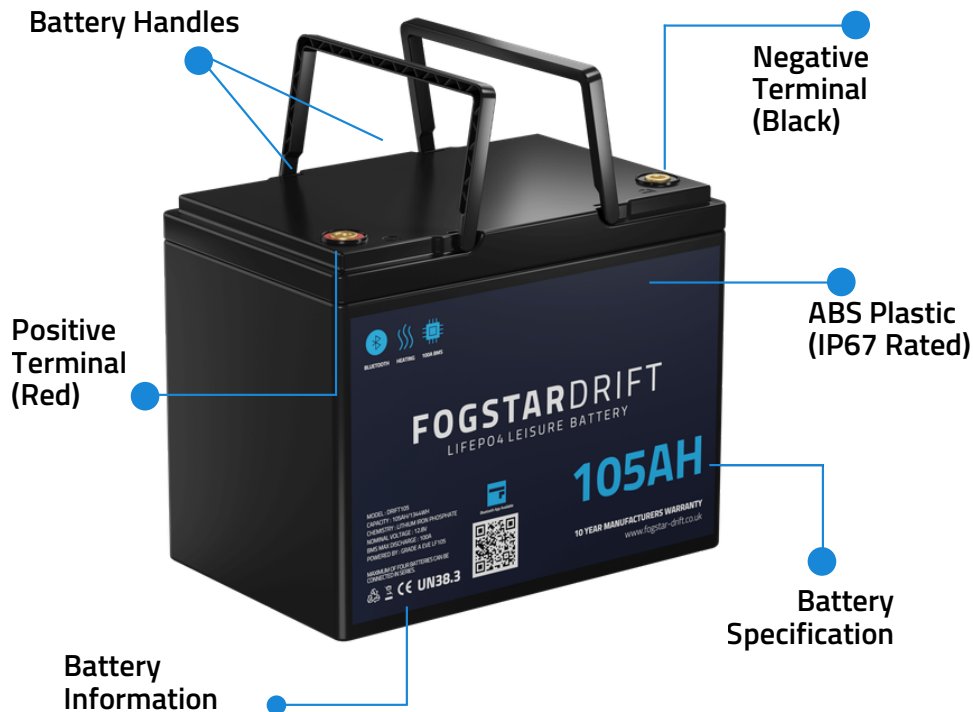
- Store batteries in a cool, dry, and well-ventilated area.
- Recommended storage charge level is approximately 30% to 50% capacity.
- Recharge the battery at least once every 3 (Three) months during long-term storage.
- Fully charge the battery before returning it to active use.

BATTERY **STORAGE**

Your battery should be charged using a lithium iron phosphate (LiFePO₄) battery charger.

- Up to 4 batteries in series
- 16 batteries in parallel

FOGSTARDRIFT



BATTERY MONITORING

The Fogstar Drift range is designed for reliable off-grid and leisure power, featuring Bluetooth connectivity for real-time battery monitoring through the Fogstar Drift App. Monitor key battery information directly from your smartphone for improved system visibility and performance management.

- Fogstar Drift App: View live battery data including state of charge (SOC), voltage, current, temperature, and protection status.
- Battery Shunt: Monitor current flow and remaining battery capacity across your system.
- Battery Monitor: Compatible with dedicated monitoring displays for clear battery performance information.

ABOUT YOUR JBD BMS

Short Circuit Protection	Yes
Temperate Protection	Yes
Over Current Protection	Yes
Over Discharge Protection	Yes

CHARGING PARAMETERS

Your battery should be charged using a lithium iron phosphate (LiFePO4) battery charger.

Bulk Charge : 14.2V - 14.4V

Float Charge : 13.5V - 13.8V



TEMPERATURE **TOLERANCES**

- Charging: Built-in heating automatically warms the battery to enable low-temperature charging performance.
- Discharging: Designed to perform reliably in cold-weather environments and demanding off-grid conditions.
- JBD BMS Protection: The integrated BMS protects the battery by preventing unsafe charging and discharging outside safe operating temperatures.

BATTERY **WARRANTY**

- Fogstar offers a 10 year warranty on all Fogstar Drift Leisure batteries.
- Warranties only apply to the original owner and are non-transferrable.
- Fogstar will verify your purchase prior to processing any warranty claims or returns.
- Please contact us at customerservice@fogstar.co.uk as soon as you encounter any issues.
- Our warranty does not cover items that have been damaged due to gross negligence, normal wear and tear, damage due to accident or collision, abuse or incorrect installation.

BATTERY **STORAGE**

- Store batteries in a cool, dry, and well-ventilated area.
- Recommended storage charge level is approximately 30% to 50% capacity.
- Recharge the battery at least once every 3 (Three) months during long-term storage.
- Fully charge the battery before returning it to active use.

SERIES & **PARALLEL**

Your battery should be charged using a lithium iron phosphate (LiFePO₄) battery charger.

- Up to 4 batteries in series
- 16 batteries in parallel

FOGSTAR**DRIFT** GEN 2



The Fogstar Drift Gen2 range combines Bluetooth monitoring with advanced communication features for greater system visibility and control. Monitor live battery performance through the Fogstar Drift App or integrate directly with compatible Victron GX devices via CAN communication.

- Fogstar Drift App: View live SoC, voltage, current, temperature, and protection status.
- Victron GX Integration: Seamless CAN communication allows you to monitor battery performance, alarms, and system status directly through compatible Victron GX devices.
- Battery-Link Communication: Enables battery-to-battery communication for scalable multi-battery installations.

ABOUT **YOUR JBD BMS**

Maximum Discharge	300A
Temperate Protection	Yes
Overcurrent Protection	Yes
Overdischarge Protection	Yes
Max Charging Current	300A

CHARGING **PARAMETERS**

Your battery should be charged using a lithium iron phosphate (LiFePO₄) battery charger.

Bulk Charge : 14.2V - 14.4V

Float Charge : 13.5V - 13.8V

FOGSTAR**DRIFT** GEN 2

TEMPERATURE **TOLERANCES**

- Charging: Built-in heating automatically warms the battery to enable low-temperature charging performance.
- Discharging: Designed to perform reliably in cold-weather environments and demanding off-grid conditions.
- JBD BMS Protection: The integrated BMS protects the battery by preventing unsafe charging and discharging outside safe operating temperatures.

BATTERY **WARRANTY**

- Fogstar offers a 10 year warranty on all Fogstar Drift Leisure batteries.
- Warranties only apply to the original owner and are non-transferrable.
- Fogstar will verify your purchase prior to processing any warranty claims or returns.
- Please contact us at customerservice@fogstar.co.uk as soon as you encounter any issues.
- Our warranty does not cover items that have been damaged due to gross negligence, normal wear and tear, damage due to accident or collision, abuse or incorrect installation.

BATTERY **STORAGE**

- Store batteries in a cool, dry, and well-ventilated area.
- Recommended storage charge level is approximately 30% to 50% capacity.
- Recharge the battery at least once every 3 (Three) months during long-term storage.
- Fully charge the battery before returning it to active use.

SERIES & **PARALLEL**

Your battery should be charged using a lithium iron phosphate (LiFePO₄) battery charger.

- Up to 4 batteries in series
- 16 batteries in parallel

FOGSTAR**DRIFT** GEN2

VICTRON INTEGRATION

Victron Cerbo GX Connectivity

Fogstar Drift Gen2 batteries are fully compatible with Victron GX systems and can communicate directly with a Victron Cerbo GX or any GX-enabled inverter.

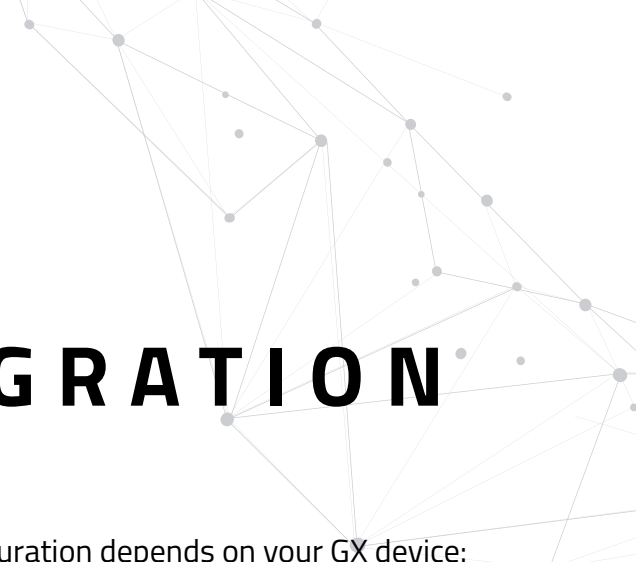
Communication is established via the CANbus protocol, using the VE CAN port 2 on the Victron device. Once connected, the BMS transmits real-time data including:

- Battery Voltage, State of Charge (SOC), and Current
- Internal and External Temperature Readings
- Individual Cell Voltages
- Up to 10 BMS Alarm States (e.g., cell imbalance, over-voltage, under-voltage)
- Dynamic Current Limit (DCL)
- Maximum Charging Voltage Limit (CVL)

Cable Requirements

A CAN communication cable is supplied with each battery. If additional length is required, a standard Cat7e Ethernet cable may be used. The cable must run from the CAN port on the battery to the VE CAN port 2 on the Victron Cerbo GX or GX-enabled inverter.





FOGSTAR**DRIFT** GEN 2

VICTRON INTEGRATION

Victron GX Connectivity

After physically connecting the Fogstar Drift battery, configuration depends on your GX device:

GX Devices (Cerbo GX Mk1)

- Connect the Fogstar Drift battery to the BMS Port.
- No further configuration is required, the system will detect the battery automatically.

GX Devices (Cerbo GX Mk2, Ekrano GX)

1. Power on the GX device.
2. Go to Settings > Services → set VE.Can speed = 500 kbit/s.
3. Go to Settings > DVCC:
 - Enable DVCC
 - Set Shared Voltage Sense = On
 - Set Shared Temperature Sense = On
4. Go to Settings > System Setup:
 - Battery Monitor → select the CAN-LV battery once it appears.
5. Return to Device List. The battery will now show up as a CAN-LV device with voltage, current, SOC and temperature.

SHUNT ACCURACY

Drift Gen2 incorporates a 0.2A shunt accuracy on discharge, placing it among the most precise BMS-integrated shunts currently available on the market.

Lower shunt measurement values provide finer current resolution, enabling the system to track charge and discharge activity with exceptional detail.

This level of accuracy improves state-of-charge calculations (SOC%), enhances predictive performance, and supports more consistent system behaviour under varying load conditions.

The result is a battery that reports its true operating status with significantly higher confidence, and removes the need for an external shunt.

MULTI-BATTERY COMMUNICATIONS

Drift Battery Linking Configuration

Drift Gen2 batteries support multi-battery setups via the Battery-Link ports located on the front of each unit. These are standard RJ45 ports, designed for internal CAN bus communication between batteries.

- Port A (Left): Receives data from the previous battery
- Port B (Right): Transmits data to the next battery.

Automatic Master Detection

The battery system automatically determines the master unit - no DIP switches or manual configuration is required.

Configuration

Connect to Victron

Connect the CAN port of your battery into the VE CAN port 2 on the Victron Cerbo GX (or GX-enabled inverter) or Ekrano using the supplied cable.

Daisy-Chain the Batteries

Use standard RJ45 patch cables to link additional batteries in sequence via the Battery-Link ports:

Port B → Port A

(Right port of one battery to the left port of the next.)

Scalability

Communication supports unlimited batteries, however battery banks should not exceed sixteen (16) Fogstar Drift batteries in parallel, and four (4) in series.

Once connected, all battery data - including voltage, current, SOC, alarms, and cell-level details - will be visible through the Victron interface, consolidated via the auto-selected master battery.

ACTIVE BALANCING

All cells used in the Gen2 range are Grade A, factory-matched and balanced EVE prismatic cells. - supplied directly from the manufacturer. This ensures your battery begins life with optimal uniformity in capacity and internal resistance.

The 2A active balancer is fully integrated within the BMS architecture, rather than implemented as an external module. It engages only when cell deviation exceeds the defined threshold of 0.015V, and operates with minimal power draw. The system maintains long-term voltage equilibrium across the pack without continuous current consumption, and without requiring any user intervention.

DISCHARGE CONTROL LOGIC

The battery system allows for independent control of charge and discharge functions via the Fogstar Drift Bluetooth App. However, there are operational limitations that must be considered. When the physical Discharge button on the battery is engaged (pressed), control of the discharge function is locked out from the Bluetooth App.

In this state, discharge cannot be enabled or disabled via the app. Conversely, if the Discharge button remains unpressed, discharge can be fully controlled through the Fogstar Drift App.

 **Note:** If the battery's physical discharge button is engaged, remote control of the discharge function via the Bluetooth App is disabled.

Engaging the Discharge button also reduces the output voltage at the battery terminals to a level that is incompatible with most standard appliances. Nevertheless, certain low-power devices (e.g., LED lighting) may continue to operate under this reduced voltage.

When placing the battery into storage, it is important to consider that such devices may still draw power, even if discharge is disabled via the app. To ensure complete isolation and prevent any parasitic drain, it is recommended to use a mechanical disconnect switch or physically disconnect the battery from the system entirely during periods of non-use.

BATTERY HEATING

The Fogstar Drift ECO, Drift Gen 1, and Drift Gen 2 ranges all use LiFePO₄ battery chemistry, providing reliable low-temperature discharge performance down to -20°C , making them well suited to demanding off-grid and cold-weather environments.

All ranges include integrated BMS temperature protection to prevent charging in unsafe low-temperature conditions. The Fogstar Drift and Drift Gen 2 ranges also feature integrated heating technology, allowing the battery to automatically warm the cells before charging resumes in colder environments.

Drift Eco

The Drift ECO range does not include an internal heating system. If the battery temperature falls below the safe charging range, the integrated JBD BMS automatically prevents charging to protect the cells from damage. For optimal battery health and longevity, charging below 0°C is not recommended.

Fogstar Drift & Drift Gen2

The Fogstar Drift and Fogstar Drift Gen2 ranges feature integrated 36W heating pads controlled by the onboard BMS, allowing safe charging in colder environments.

Heating Activation Logic

- Charging is disabled when internal battery temperature drops to 0°C (Low Temperature Cut-Off)
- Incoming charge current is redirected to power the internal heating pads
- Once the battery reaches 5°C , charging automatically resumes
- The heating system only operates while connected to a compatible charger and does not consume stored battery power

Technical Information

- Minimum charge current for heater activation: 0.5A
- Heating system tested at temperatures down to -20°C
- Rated for external ambient conditions down to -40°C
- Heating will only activate when a charger is connected and supplying current

 Important: Always ensure your charging setup can provide sufficient input current to support heating pad activation in low-temperature conditions.

FOGSTAR DRIFT APP

The Fogstar Drift App gives you quick and easy access to live battery information directly from your smartphone. Designed specifically for Fogstar Drift batteries, the app connects via Bluetooth to display real-time battery data without requiring an internet connection.

About the App

- Free on iOS and Android
- Direct Bluetooth connection
- Live battery monitoring
- Quick QR code pairing
- Simple, user-friendly interface
- Designed specifically for Fogstar Drift batteries

Getting Started

- Download the Fogstar Drift App from the App Store or Google Play
- Enable Bluetooth on your device
- Open the app and connect to your battery

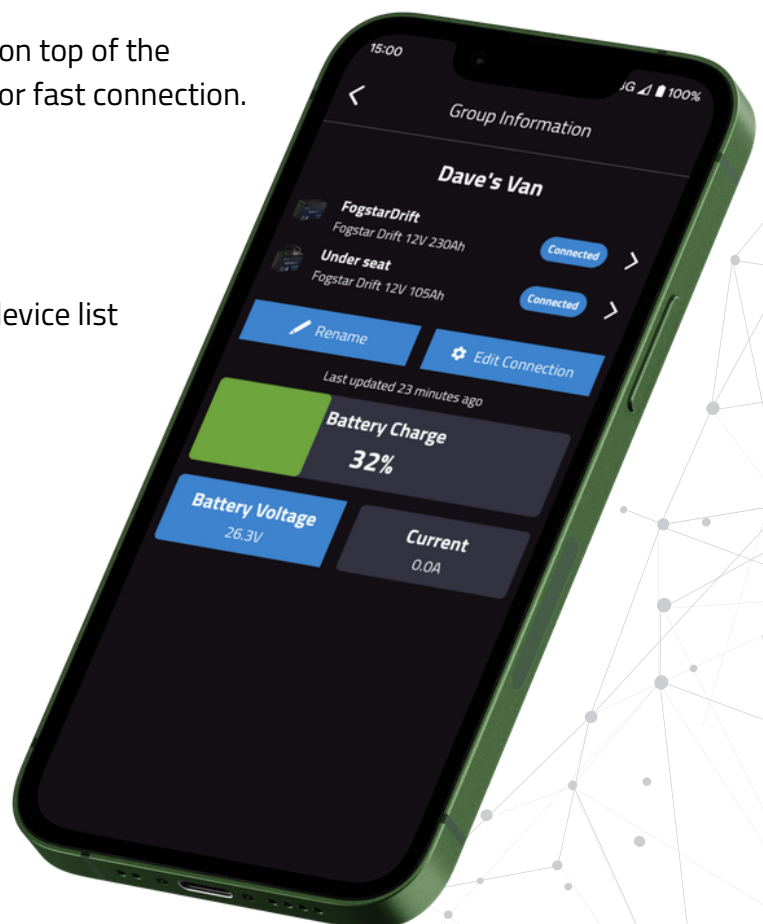
Android users may also need to enable Location Services for Bluetooth scanning.

Connecting your Battery

QR Code Pairing: Scan the QR code located on top of the battery using the scan icon within the app for fast connection.

Manual Connection:

- Power on your battery
- Open the Fogstar Drift App
- Select your battery from the available device list
- Tap the Bluetooth toggle to connect



FOGSTAR DRIFT APP

Battery Controls

The app allows you to manually enable or disable charging and discharging directly from the dashboard.

- Charging OFF: Prevents the battery from accepting charge
- Discharging OFF: Prevents the battery from supplying power, useful during storage or maintenance

Battery Monitoring

Monitor key battery information in real time, including:

- State of Charge (SOC)
- Voltage
- Current
- Temperature
- Protection status

Renaming your Battery

You can rename your battery within the app for easier identification in multi-battery systems.

- Tap the battery name at the top of the dashboard
- Enter a new name (maximum 20 characters)
- Wait a few seconds for the change to save

Advanced Settings

Advanced BMS settings are password protected to prevent unsafe configuration changes.

 Incorrect BMS settings can cause system instability or battery damage. Please contact Fogstar Customer Support before making advanced changes.

PIN Protection

You can add a 6-digit PIN to prevent unauthorised devices from connecting to your battery.

 Important: If the PIN is forgotten, recovery may require technical support. Always store your PIN securely.

YOUR FOGSTAR DRIFT PIN CODE

Each Fogstar Drift battery is supplied with a unique PIN address, serial number, and MAC address. These details are printed on the label located on the top of the battery and are used for secure app access, identification, and product support.

PIN Code:

The PIN code is used as the password when connecting to the battery via the Fogstar App. During the initial connection, you will be prompted to enter this PIN to gain access to the battery. This helps ensure that only authorised users can view battery information and settings. Please keep this PIN safe, as it is required to access the battery in the app.

Once connected, the PIN can be changed at any time within the Fogstar App. We recommend choosing a PIN that is easy to remember while keeping it secure, as it will be required for future access. To update the PIN, open the Fogstar App, go to Advanced Settings, and select the option to change the battery PIN code.

Serial Data:

The serial number contains the battery's individual production and test data. This allows Fogstar to view manufacturing and quality control records specific to your battery if support or warranty assistance is ever required. No action is required from the user, but this number is important for verification and aftersales support.

MAC Address:

The MAC address is a unique communication identifier used by the Fogstar App to locate and connect to the correct battery. This is particularly useful when multiple Fogstar batteries are nearby. The MAC address is printed on the label and is also embedded within the QR code for quick and accurate identification.

PIN CODE EXAMPLE:

PIN: 123456

SERIAL DATA EXAMPLE:



AAA1234567890

MAC ADDRESS EXAMPLE:



AA : 01 : 23

BB : 45 : 67

CCCC 00/00



DRIFT ECO

FAQ'S

Can I connect multiple Drift ECO batteries together?

Yes. Drift ECO batteries support up to 4 batteries in series and up to 16 batteries in parallel, allowing you to increase system voltage, capacity, or both depending on your installation requirements.

Does the Drift ECO range include built-in heating?

No. Drift ECO batteries do not feature integrated heating. Charging below 0°C is not recommended; however, the built-in JBD Battery Management System (BMS) will automatically prevent charging when temperatures fall outside safe operating limits.

Can I monitor my Drift ECO battery using the Fogstar Drift App?

Yes. All Drift ECO batteries feature integrated Bluetooth connectivity and can be monitored directly through the Fogstar Drift App. The app provides real-time information including state of charge, voltage, temperature, current flow, and cycle count.

Can I install a Drift ECO battery on its side?

Yes. Drift ECO batteries can be installed upright or on their side. They should not be installed upside down or with the terminals facing downward.

What charging settings should I use?

For 12V Drift ECO batteries, we recommend the following charging settings:

Bulk / Absorption: 14.2V–14.4V

Float: 13.5V - 13.8V

Always ensure your charger is configured for LiFePO₄ batteries where possible.

How should I store my Drift ECO battery?

For long-term storage, we recommend storing the battery at approximately 40–50% state of charge in a cool, dry environment away from direct sunlight and heat sources. To maintain optimum battery health, recharge the battery every 3 (Three) months during storage.



FAQ'S

Can I connect multiple Drift batteries together?

Yes. 12V Drift batteries support up to 4 batteries in series. 24V Drift batteries support up to 2 batteries in series and up to 4 batteries in parallel. Always ensure all batteries in the bank are the same model, voltage, capacity, and age.

Can I connect Drift batteries of different capacities together?

No. Batteries connected in series or parallel must be the same model, voltage, and capacity. Mixing batteries can result in reduced performance and premature system shutdown.

Does the Drift range include built-in heating?

Yes. Drift batteries feature an integrated heating system managed by the onboard BMS. This allows safe charging in colder conditions and helps protect the cells from low-temperature charging damage.

How does the heating system work?

The integrated heater activates automatically during charging when the battery temperature falls below 0°C. Once the cells reach approximately 5°C, normal charging resumes automatically.

Can I monitor my Drift battery using the Fogstar Drift App?

Yes. All Drift batteries feature integrated Bluetooth connectivity and can be monitored through the Fogstar Drift App. The app provides real-time information including state of charge, voltage, temperature, current flow, and cycle count.

How should I store my Drift battery?

For long-term storage, we recommend storing the battery at approximately 40–50% state of charge in a cool, dry environment away from direct sunlight and heat sources. Before storage, disconnect any loads, chargers, or equipment connected to the battery terminals and use the Fogstar Drift App to disable both charging and discharging. To maintain optimum battery health, recharge the battery every 3 (Three) months during storage.

Can I install this battery in a hybrid system?

Fogstar does not recommend or support hybrid installations unless they are designed, installed, and commissioned by a suitably qualified professional.

FAQ'S

Can I connect multiple Drift Gen2 batteries together?

Yes. Drift Gen2 batteries support both series and parallel configurations and feature Battery-Link technology, allowing multiple batteries to communicate with one another for improved system monitoring and compatibility with supported inverter platforms.

When connecting batteries in series, the total system voltage must not exceed 51.2V. Always refer to the product specification sheet for the maximum supported series and parallel configuration for your specific battery model.

Does Drift Gen2 include integrated heating?

Yes. Drift Gen2 batteries feature integrated 36W heating pads managed by the onboard BMS. The heating system activates automatically during charging when the battery temperature falls below 0°C, warming the cells to a safe charging temperature. Once the cells reach approximately 5°C, normal charging resumes automatically.

Can I monitor my Drift Gen2 battery using the Fogstar Drift App?

Yes. Drift Gen2 batteries feature integrated Bluetooth connectivity and can be monitored directly through the Fogstar Drift App. The app provides real-time information including state of charge, voltage, temperature, current flow, cell data, and cycle count.

What charging settings should I use?

12V Systems

Bulk / Absorption: 14.2V

Float: 13.5V - 13.8V

24V Systems

Bulk / Absorption: 28.4V

Float: 27V - 27.6V

48V Systems

Bulk / Absorption: 57.6V

Float: 54.0V - 55.2V

Always ensure your charger is configured for LiFePO₄ batteries where possible.

WARRANTY

Coverage

- Fogstar Drift ECO batteries are covered by a 6-year warranty.
- Fogstar Drift and Fogstar Drift Gen2 batteries are covered by a 10-year warranty.
- This warranty applies to products purchased from an authorised Fogstar dealer.



Important: Register your battery at our Fogstar Drift website upon receipt to activate your warranty.



What's Covered

This warranty protects against defects in materials and workmanship that prevent the battery from performing as specified, including:

- BMS failure
- Cell failure
- Faulty temperature sensors
- Charging/discharging issues
- Internal corrosion



What's Not Covered

The warranty does not cover:

- Improper installation or use
- Physical damage, neglect, or modification
- Alteration of BMS parameters without approval
- Use with incompatible chargers
- Damage due to over-discharge requiring recovery

For detailed warranty information, please refer to the warranty documentation



Making a Claim

To begin a warranty claim, contact:



customerservice@fogstar.co.uk



01527 757980