FOGSTAR DRIFT DIN

LITHIUM LEISURE BATTERY

TECHNICAL MANUAL
VERSION 1

DRIFT DIN

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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.

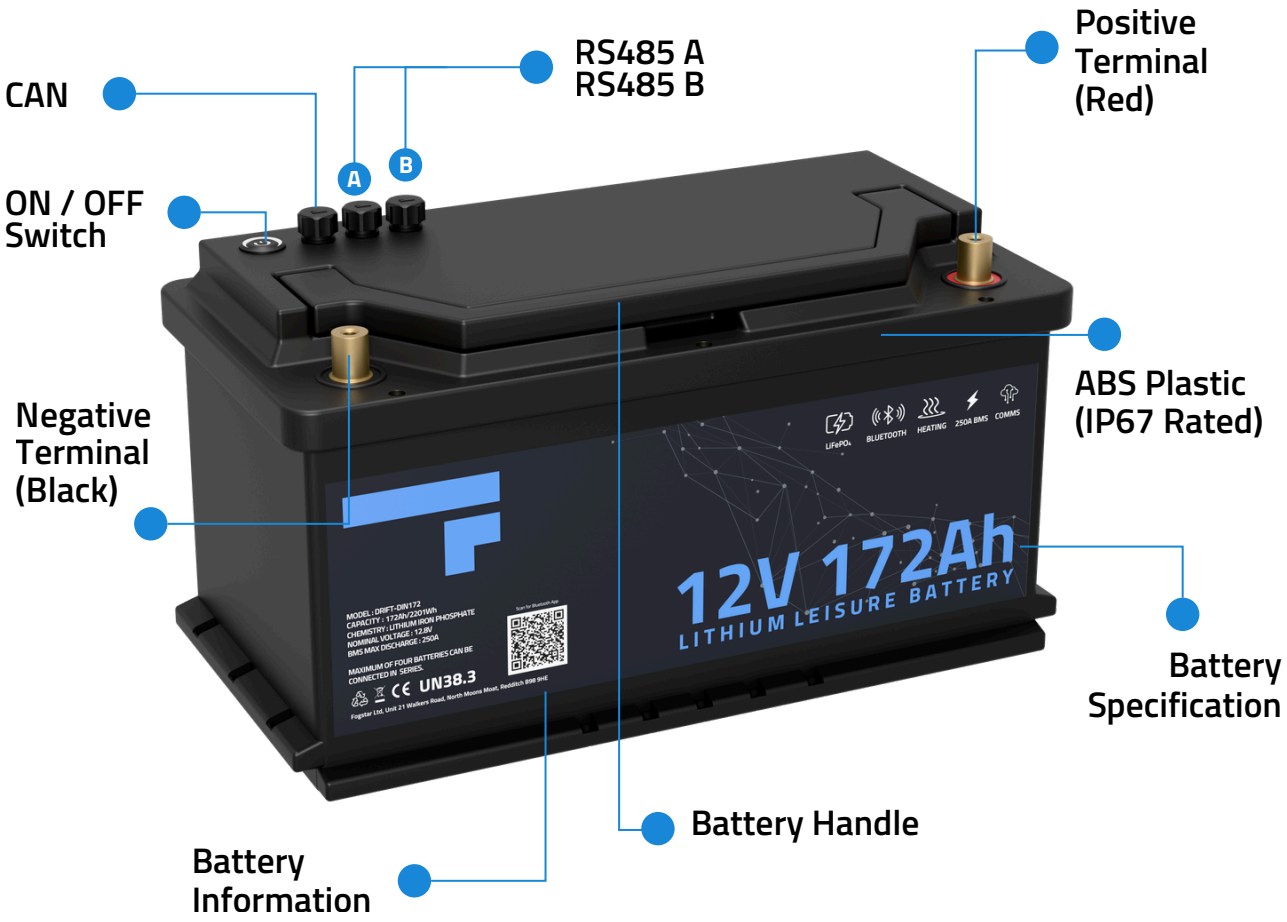
We're so confident in our product, every Fogstar Drift battery is supported by a 10-year warranty and underpinned by a UK-based technical team who actually pick up the phone when it matters.

The Fogstar Drift DIN builds on the proven Drift platform, delivering reliable lithium performance in a standard DIN case format. It combines modern system communication, integrated active balancing and a 250A Smart BMS designed for demanding leisure and off-grid environments. With robust protection, CAN integration and modular expansion through Battery-Link, Drift 172Ah DIN is engineered for long-term reliability and seamless integration across modern electrical systems.

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

YOUR DRIFT DIN BATTERY



CE UN38.3

Our Drift 172Ah 12V DIN battery is manufactured to rigorous safety and compliance standards. Each unit is supported by full MSDS documentation, certified to UN38.3 transport testing and marked in accordance with CE requirements. This ensures every battery meets stringent benchmarks for quality, safety and reliability.

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:

- 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).

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.

ACTIVE BALANCING

All cells used in the Fogstar Drift DIN battery are Grade A, factory-matched and balanced EVE prismatic cells supplied directly from the manufacturer. This ensures the battery begins operation 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 automatically when cell voltage 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.

BATTERY HEATING

The Fogstar Drift 172Ah DIN range uses $LiFePO_4$ chemistry, which supports safe discharge down to −20°C. However, charging lithium iron phosphate cells below 0°C can cause permanent cell degradation and capacity loss.

To mitigate this, each battery includes integrated 36W heating pads, managed by the onboard BMS to maintain safe charging conditions in low-temperature environments.

Heating Activation Logic:

- Charging is disabled when internal temperature drops to 0°C (LTC – Low Temperature Cut-off).
- The BMS redirects incoming charge current to power the heating pads.
- Once internal temperature reaches 5°C, charging is automatically re-enabled.
- The heating system operates exclusively during charging and does not consume battery power.

Technical Notes:

- Minimum charge current for effective heating: 0.5A
- Heating pad operation tested at: −20°C
- Rated for conditions down to: −40°C (external ambient)
- Heating will not activate unless a compatible charger is connected and supplying current.

⚠️ Important: Always ensure your charging setup meets minimum input current for heating pad activation.

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 ≥ 5°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°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°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 250A
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 250A
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 × 172Ah = 344Ah)
- Current Output: Additive (e.g. 2 × 250A = 500A peak)
- Voltage: Remains 12.8V nominal

Example:
Two Drift Fogstar Drift DIN 172Ah batteries in parallel =
344Ah, 500A 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 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 × 12.8V = 25.6V)
- Capacity & Current Output: Unchanged (e.g. still 172Ah, 250A peak)

Example:
Two Fogstar Drift DIN 172Ah batteries in series =
172Ah, 250 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 48V system builds.

Limits:

- Maximum 4 batteries in series
- Do not configure systems above 48V 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).

MULTI-BATTERY COMMUNICATIONS

Drift Battery Linking Configuration

Drift DIN 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
You can connect up to 16 batteries in parallel, and up to four in series (up to 48V).

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.

VICTRON INTEGRATION

Victron Cerbo GX Connectivity
Fogstar Drift DIN 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.

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 DIN 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.

FOGSTAR DRIFT APP

The Fogstar Drift App is your go-to tool for monitoring and managing your Drift battery. Designed with clarity and simplicity in mind, the app gives you direct access to real-time data from your battery's internal Battery Management System (BMS).

About the App

- Available free for all Android and iOS devices
- Download from the App Store (iOS) or Google Play (Android)
- Designed for quick access to key battery data without unnecessary complexity
- Built specifically to interface with the Fogstar Drift BMS
- Bluetooth direct connection (no internet required)
- Option to connect via QR code for quicker pairing

The app features a user-friendly interface, suitable for all users - whether you're technically inclined or not. Navigation is clean and intuitive, putting the most important information front and centre.

📥 Getting Started

1. Download the App
Install the Fogstar Drift App from the App Store (iOS) or Google Play (Android).

2. Enable Required Services
- Ensure Bluetooth is switched on
- Enable Location Services (required by Android for Bluetooth scanning)

🔄 Connecting to Your Battery

There are three ways to connect your Fogstar Drift App to your battery.

1. Connecting Your Battery via QR Code
You can quickly pair your Fogstar Drift battery to the app using the QR Code located on the battery itself.

- The QR code is positioned on the top of the battery, between the positive and negative terminals.
- Open the Fogstar Drift App, and on the Connect screen, tap the scan icon in the top-right corner.
- Your phone's camera will activate - simply scan the QR code to instantly connect.

2. Manual Connect

- Power on your Drift battery
- Open the Fogstar Drift App
- Wait for the app to identify nearby batteries
- Find your battery on the list
- Slide the Bluetooth toggle (dot) to initiate the connection
- After a brief pairing process, you'll be redirected to the Battery Dashboard

⚡Charge and Discharge Control

Within the main dashboard of the Fogstar Drift App, you'll find two key toggles: 'Charging' and 'Discharging'.

These controls allow you to manually enable or disable the battery's charge and discharge functions:

- Charging [OFF]: Prevents the battery from accepting charge.
- Discharging [OFF]: Prevents the battery from supplying power. This is useful for storage mode or system maintenance.

Setting Discharge to OFF places the battery in a low-power state, reducing the risk of unintended power drain during storage.

FOGSTAR DRIFT APP

📝 Renaming Your Battery

You can easily customise the name of your Drift battery for clearer identification - especially useful in multi-battery systems.

To rename your battery:

1. Open the Fogstar Drift App
2. Navigate to the Battery Dashboard
3. Tap the current battery name displayed at the top of the screen
4. Enter your new name and confirm
5. Do not exceed 20 characters
6. The BMS will acknowledge the change with a 'Success' message.

⏱️ Wait 15 seconds for the new name to fully register with the BMS before exiting the screen.

🔒 Advanced Settings

Access to Advanced Settings is password-protected to ensure the integrity and safety of your battery system.

All BMS parameters are factory-configured and locked to prevent unauthorised changes. These settings are critical to the safe and stable operation of your battery. Modifying them without guidance can cause irreversible damage, including:

- Severe cell imbalance
- BMS communication errors
- System instability or failure

If you require a custom configuration - such as for a hybrid system or non-standard application - please contact our Customer Service team before making any changes:
✉️ customerservice@fogstar.co.uk

A member of our technical team will review your setup and, if appropriate, provide temporary access along with guidance to ensure the configuration is safe and supported.

⚠️ Do not attempt to alter BMS settings without authorisation. Doing so may void your warranty and compromise battery safety.

FOGSTAR DRIFT APP

🔐 Setting a Password (PIN Protection)

To enhance security, you can set a 6-digit PIN on your Drift battery via the Fogstar Drift App. Once enabled, this PIN will prevent unauthorised devices from connecting to your battery.

⚠️ Important: If you forget your PIN, recovery is not possible via the app. The only way to reset it is a via a technical process and not easily performed in the field.

Once set:

- Your current device will remain connected and will not prompt for the PIN again
- Any new device attempting to connect will require the PIN to access the battery

Best Practices:

- Write the PIN down and store it securely
- Email a copy to yourself or send it to customerservice@fogstar.co.uk for safekeeping
- Do not set a PIN unless you're confident you can retain or retrieve it later.

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:

PIN: 123456

SERIAL DATA:

AAA1234567890

MAC ADDRESS:

AA : 01 : 23
BB : 45 : 67

CCCC 00/00

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 172Ah DIN 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.

FREQUENTLY ASKED QUESTIONS

Can I Series or Parallel my batteries?
Yes. You can connect up to four (4) 12V Drift DIN batteries in series OR parallel. For 24V batteries, you can connect a maximum of two (2) in series or four (4) in parallel to a maximum of 48V.

Can I parallel batteries of different capacities?
No. All batteries connected in series or parallel must be the same capacity, make and model.

How do I register my Drift warranty?
You can register your 10-year Fogstar Drift warranty here:
https://www.fogstar-drift.co.uk/pages/warranty-registration

What charger should I use with my Drift Din Battery?
As a general guideline, lithium batteries should be charged at 20–30% of their rated capacity. For example, a 172Ah battery is best paired with a charger that delivers around around 30A.

Always refer to the specific charging parameters for your battery to ensure compatibility. We offer a range of Fogstar-approved chargers designed to maximise performance and lifespan. For tailored advice, feel free to contact our team.

Can I install my Drift battery on its side?
Yes. Drift batteries are orientation-independent, meaning they can be installed on their side, end, or upright - whichever suits your setup. The only requirement is that the terminals remain clean, accessible, and unobstructed.

Can I install this system as part of a hybrid installation?
Due to repeated attempts at hybrid installations without appropriate electrical expertise, and the resulting failures that require remedial support, we no longer recommend or support hybrid installations.

Are external battery balancers required when connecting batteries in series?
Yes. Any series connection using our batteries must be designed to include an external battery balancer, such as the Victron Battery Balancer. A battery balancer equalises the state of charge of two series-connected 12V batteries, supporting balanced operation and helping to reduce the risk of performance loss or premature battery degradation.

WARRANTY

Coverage
All Fogstar Drift Lithium Leisure Batteries are covered by a 10-year warranty from the date of shipment. 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:

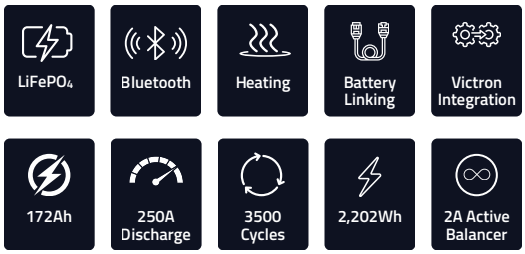
- BMS failure
- Cell failure
- Faulty temperature sensors
- Charging/discharging issues
- Internal corrosion

❌ 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

📩 Making a Claim
To begin a warranty claim, contact:
✉️ customerservice@fogstar.co.uk
📞 01527 757980

SPECIFICATIONS



FITS LIKE LEAD ACID, POWERED BY LITHIUM

Designed in a standard DIN case format, this battery is a true drop-in replacement for traditional lead acid leisure batteries. It fits existing battery trays, clamps and cabling layouts without modification, making upgrades simple and hassle free.

While it installs like lead acid, inside it delivers the full benefits of modern LiFePO4 technology, including higher usable capacity, stable voltage, reduced weight and significantly longer service life.

Specifications	
Cell Configuration	4S1P
Nominal Capacity	172Ah
Energy	2,202Wh
Cell Chemistry	Lithium Iron Phosphate
Cell Nominal Voltage	3.2V *4 (12.8V)
Cycle Life	3500 Cycles @ 80% DOD
Maximum Discharge	250A
Maximum Charging Current	172A
Nominal Voltage	12.8V
Standard Charging Voltage	14.4V
Maximum Charging Voltage	14.6V
Discharge Cut Off Voltage	10V
Discharge Temperature Range	-20°C ~ 55°C
Charge Temperature Range	0°C ~ 55°C
Heating Function	0°C ~ 10°C
Storage	-20°C ~ 45°C (1 month) 0°C ~ 35°C (3 months)
Measurements (LxWxH mm)	359.8 x 178.3 x 188.6
Weight	16kg
Housing Material	ABS Plastic

CE UN38.3

BMS Specifications	
Maximum Discharge	250A
Temperate Protection	Yes
Overcurrent Protection	Yes
Overdischarge Protection	Yes
Max Charging Current	250A