B-TEC ULTRA

Owner's Manual

ENERDRIVE | DOMETIC B-TEC ULTRA (LiFePO4)

Lithium Iron Phosphate Battery with Smart Phone BT Monitoring

EPL-100BT-12V-G3

EPL-120B T-12V-G3

EPL-200BT-12V-G3

EPL-300BT-12V-G3

For safe and optimum performance, the ENERDRIVE | DOMETIC B-TEC ULTRA LiFePO4 Lithium Iron Phosphate Battery with Smart Phone Monitoring must be used properly. Carefully read and follow all instructions and guidelines in this manual and give special attention to the CAUTION and WARNING statements.

PLEASE KEEP THIS MANUAL FOR FUTURE REFERENCE

Disclaimer

While every precaution has been taken to ensure the accuracy of the contents of this guide, ENERDRIVE | DOMETIC assumes no responsibility for errors or omissions. Note as well that specification and product functionality may change without notice.

Important

Please be sure to read and save the entire manual before using your ENERDRIVE | DOMETIC B-TEC ULTRA Battery with Smart Phone Monitoring. Misuse may result in damage to the battery, and/or cause harm or serious injury. Read manual in its entirety before using the unit and save manual for future reference.

Product Number

EPL-100BT-12V-G3
EPL-120BT-12V-G3
EPL-200BT-12V-G3
EPL-300BT-12V-G3

Support Contact Information

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1. Warnings and reminders

Please carefully read the battery specifications or instructions before use. Improper use may cause the battery to heat up, catch fire, rupture, damage, or decrease capacity. ENERDRIVE | DOMETIC shall not be responsible for any accidents caused by not following our operating instructions.

Warning!

• Keep the battery away from heat sources, high voltage, and avoid exposure to direct sunlight for long periods of time.
• Do not short circuit the positive and negative terminals.
• Do not connect the positive and negative terminals of the battery together.
• Do not reverse the polarity of the battery.
• Do not disassemble, alter or drill into the battery. The battery warranty will be voided if the case is opened.
• Do not leave battery in low state of charge for long periods of time.
• Do not drop, impact, or puncture the battery.
• Do not strike, throw, or step on the battery.
• Do not place the into fire or bodies of water.
• Do not dispose of the battery in fire.
• Do not exceed the IP67 dust and water resistant rating.
• Do not exceed the charge and discharge parameters of the battery
• Do not invert the two terminals when using the battery.
• Do not disassemble the battery.
• Do not mix batteries of different capacities and brands.
• Do not mount the battery on its side or upside down.

Reminder:

• It is recommended to fully charge the battery every month to correct the battery SOC.
• If the battery is over discharged, please charge the battery in a timely manner (≤ 2 days).
• Use a dedicated lithium battery charger to charge the battery.
• Stop using the battery if it emits odor, heat, deformation, or any abnormalities occur.
• Please place the battery away from children or pets.
• If the battery pack electrolyte leaks, please avoid contact with liquids or leaked gases. If the battery pack electrolyte leaks, please take the following steps immediately:

① **Inhalation of gas:** Evacuate personnel from the contaminated area and seek medical attention as soon as possible.

② **Eye contact:** Rinse eyes with water for 15 minutes and seek medical attention as soon as possible.

③ **Skin contact:** Thoroughly rinse the exposed area with soap and water to ensure there are no chemicals or soap residues on it and seek medical assistance as soon as possible.

④ **Swallowing:** Try to induce vomiting and seek medical attention as soon as possible.

⑤ **Fire:** Please use carbon dioxide fire extinguishers instead of liquid fire extinguishers to extinguish the fire

1.1 Safety Statement

Please read this manual carefully before installation, operation, and maintenance, and pay attention to various warning signs and statements on the equipment. After reading this manual, please keep it properly for future reference.

- **Before Installing**:
  - Carefully read the user manual before installing or using the battery. Failure to follow any instructions or warnings in this document may result in electric shock, serious injury, or damage to the battery and the entire system.
  - Check the voltage and ensure that they are within the limits of your device specifications before connecting the battery pack to your device. Failure to comply with these specifications will void your warranty.

1.2 Symbols

This manual contains symbols that should be paid special attention to during operation.

Symbol	Statement
	Precautions need to be taken during operation
	Risk of electric shock and protective measures need to be taken
	Matters that require special explanation or reminder

1.3 Critical Safety Information

Before installing, operating, or maintaining the battery, the following instructions must be read:

- **During Installation**:
  - Personnel familiar with the electrical specifications of their country or region are required to install battery packs. For optimal safety, please follow the steps described in this manual.
- **Battery Operation**:
  - Do not connect batteries to different types/Brands/Models of batteries.
  - Do not use faulty or mismatched chargers to charge the battery.
  - Follow the environmental conditions specified in the product specification.
  - If the battery is deformed, abnormally hot, or emitting an odor, immediately cut off the power and stop using it.
  - The B-TEC Ultras are IP67 rated (submersion at <1m for 30min)
  - Under normal use conditions the battery should be kept at least 0.2m away from the body of the user.

1.4 Battery Maintenance

A competent person should oversee the charging process, ensuring secure connections between plugs and sockets, and verifying the proper functioning of charging equipment. All connection points of the battery pack must be checked for good contact. Any abnormalities should be addressed before initiating charging.

If there is significant dust, metal shavings, or other debris on the battery pack's upper cover and poles, clean them promptly with a vacuum cleaner. Avoid using corrosive chemicals when cleaning.

Estimate the charging and discharging times based on the battery or battery pack's actual usage. Monitor for any abnormalities, such as voltage discrepancies, at the end of the charging and discharging cycles.

Regularly inspect the conductive strips, voltage collection terminals, and other nodes for looseness, detachment, rust, or deformation. Periodically check all connections and mounts to ensure that the battery or batteries connected in series or parallel are securely fixed (at least every three months).

1.5 Waste Disposal

Dispose of packaging and replace components in accordance with the laws and regulations of the country or region where the battery pack is located. Do not mix batteries with regular household waste.

1.6 Battery recycling

ENERDRIVE | DOMETIC lithium-ion batteries are recyclable and **SHOULD NOT** be treated as household waste or landfill waste. If you need assistance in recycling batteries, please contact ENERDRIVE | DOMETIC

2. What's Included

Table 1: Material List

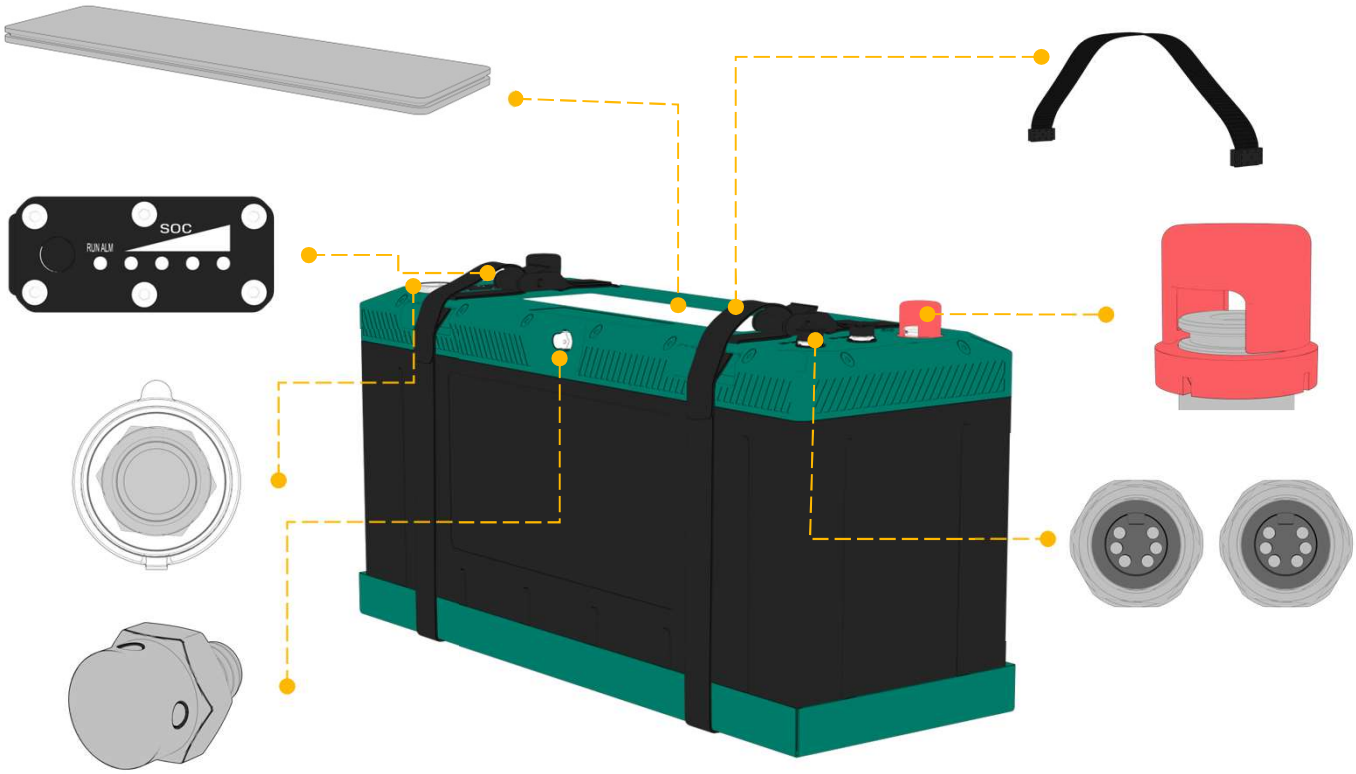
- B-TEC ULTRA lithium battery
- 500mm long M12-6P circular interface at both ends
- M8x16mm SS/Screw
- Battery Strap(s)
- Battery Handle(s)
- Mounting Tray

3. Introduction to B-TEC ULTRA Series Batteries

3.1 Main Features

- **LiFePO4 Chemistry**: Provides excellent safety and lifespan.
- **High Reliability**: Ensures consistent performance over a wide temperature range.
- **Heat Dissipation**: Maintains high current charging and discharging for longer periods.
- **Communication Function**: Enables the battery to communicate with external devices through CAN for better battery management.
- **IP67:** An IP67 rating means the product is fully protected against dust and can withstand submersion in water for a short time, typically up to 30 minutes at a depth of <1 meter.

3.2 Product Appearance



Note: the actual product may vary slightly from the image shown

Figure 1

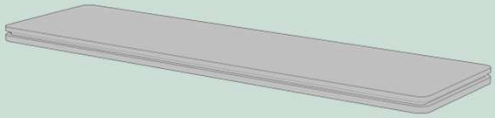
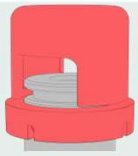
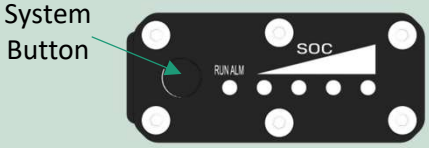
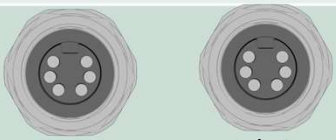
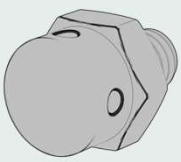
No	Image	Name	Description
1		Heat Sink	Disperse the heat inside the battery, be careful not to touch it with your hands
2		Battery Terminal	M8 Terminal in POS Red and Neg Black
3		SOC Display Panel	System button: Check the SOC running light to preliminarily determine whether the battery operates normally.
4		ON/OFF Power Button	When the battery is not used for a long time, it can be disconnected to reduce self-consumption
5		Labels	Carefully read the label and use the battery correctly according to the label content
6		Handle	Convenient handling of batteries
7		Coms Ports M12-6P	Battery to battery communication, battery to external communication
8		Pressure Relief Valve	The Pressure relief valve is there to equalise the internal case pressure with the outside environment to maintain the IP67 rating of the battery.

Table 1: Component Description

3.3 Functional Characteristics

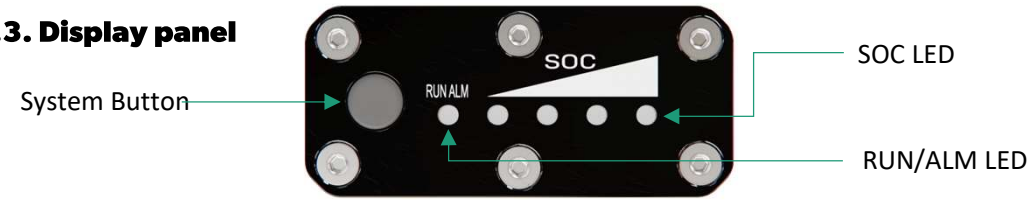
3.3.1. Heat sink

The heat sink is an essential cooling component of the Battery Management System (BMS), designed to rapidly dissipate heat. This helps extend the BMS's operational capacity under heavy loads and prolong its lifespan. However, please note that the heat sink can become hot during operation. To prevent burns, avoid touching it by hand.

3.3.2. Battery terminal

Each battery features a positive terminal and a negative terminal. Ensure you correctly identify these terminals and avoid reversing them during use. Once the battery cables are connected to the battery terminal, cover it with a protective cover to prevent short circuits.

3.3.3. Display panel



The battery display panel has 1 fault/running light, 4 SOC indicator lights, and 1 button.

3.3.3.1 Indication explanation

RUN/ALM LED: GREEN/RED

Displayed in GREEN when the battery is normal.

When there is a battery failure alarm or protection, it will display in RED.

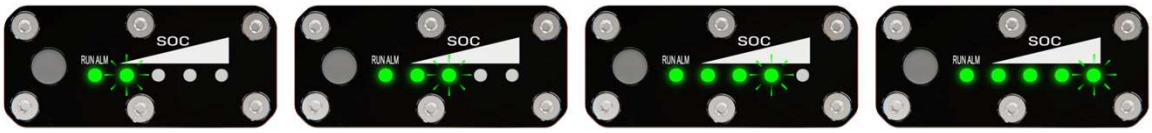
LED COLOUR	ON Solid	Blinking
GREEN 	Always on during Charging & Discharging	Blinking when in Standby ON-0.25sec / OFF 3.75sec
RED 	Always on when there is a Fault Condition	

3.3.3.2 SOC indicator lights

4 green lights, representing different SOC according to different lighting methods.

Each LED represents 25% SOC. (Blink = ON-0.5sec / OFF 0.5sec)

Status	Charge				Discharge			
SOC LED	LED 1	LED 2	LED 3	LED 4	LED 1	LED 2	LED 3	LED 4
0-25%	Blink	OFF	OFF	OFF	ON	OFF	OFF	OFF
25-50%	ON	Blink	OFF	OFF	ON	ON	OFF	OFF
50-75%	ON	ON	Blink	OFF	ON	ON	ON	OFF
75-100%	ON	ON	ON	Blink	ON	ON	ON	ON



0-25% 25-50% 50-75% 75-100%

3.3.4 Battery switch:

The battery switch is used to turn the battery ON or OFF.

3.3.4.1 When the battery switch is ON, it indicates that the battery BMS is in a normal state and can be charged, discharged, and connected to Bluetooth; When the battery switch is in the OFF, it indicates that the battery is in a shutdown state, and cannot be charged or discharged, and cannot connect to the battery Bluetooth; The battery enters a sleep state.

If the battery will not be used for an extended period or is placed in storage, switch it to the OFF position. This reduces the BMS power consumption and ensures there are no parasitic loads on the battery.

The B-TEC ULTRA lithium battery features an intelligent BMS designed to protect the battery cells. When switching from the OFF to the ON position, the BMS performs a self-check, which should not exceed 10 seconds. Therefore, a startup time within 10 seconds is considered normal.

3.3.4.2 System button

The battery cannot be used normally until it is activated

Usage method:

① When using the battery for the first time, place the battery power switch in the ON position;
② Short press the System button for 1sec to indicate battery SOC, and the LED will be on for 10sec
③ Long press and hold the System button for 10sec to activate the battery. After activation, the LED lights will indicate the battery SOC; RUN light flashing Green; It is used to automatically match the battery address for networking.
For detailed purposes, please refer to the networking function.

3.3.8. Pressure relief valve

The pressure relief valve is designed to equalize the internal air pressure of the case with the external environmental conditions, ensuring the integrity of the IP67 seal.

Important: Ensure there are no objects around the pressure relief valve that could restrict its functionality.

3.3.9 Heating Function

The B-TEC ULTRA series features a unique internal heating function that allows the battery to operate efficiently in low-temperature environments. This ensures optimal performance even in extreme conditions. This Function is automatically controlled via the BMS.

3.3.10 Communication Ports

① 2 x Communication ports with CAN communication (Input & Output)

② You can upgrade the battery firmware through the communication port;

③ It can communicate with other devices through the communication port.

Important Note:

Only use genuine cables for connections.
Never cut a cable while it is connected.

3.3.5. Label

The labels display performance parameters. During use, ensure that the charger and load specifications match or do not exceed the parameters indicated on the label to prevent battery failure.

3.3.6. Handle

The handle is used to bear the weight of the battery. When lifting the battery, pay attention to observing the stability of the handle to avoid the battery falling off and dropping.

Note: Although lithium batteries are lighter than traditional lead-acid batteries, always plan any lift with a clear path and, when possible, use two people. Ensure you follow proper lifting techniques.

4. Installation

4.1 Tools and Equipment

- Insulating Gloves
- Safety Shoes
- Tools
    - 13mm Spanner/socket (Battery Terminals)
    - Cordless Drill with drill bits and Screwdriver bit (Mounting Tray)

4.2. Battery Placement

Gently place the battery pack face up on the support surface, do not lay it on its side or upside down, and do not place any covers above the pack. The diagram of battery pack placement is shown in Figure 2.

Figure 2: Placement Diagram

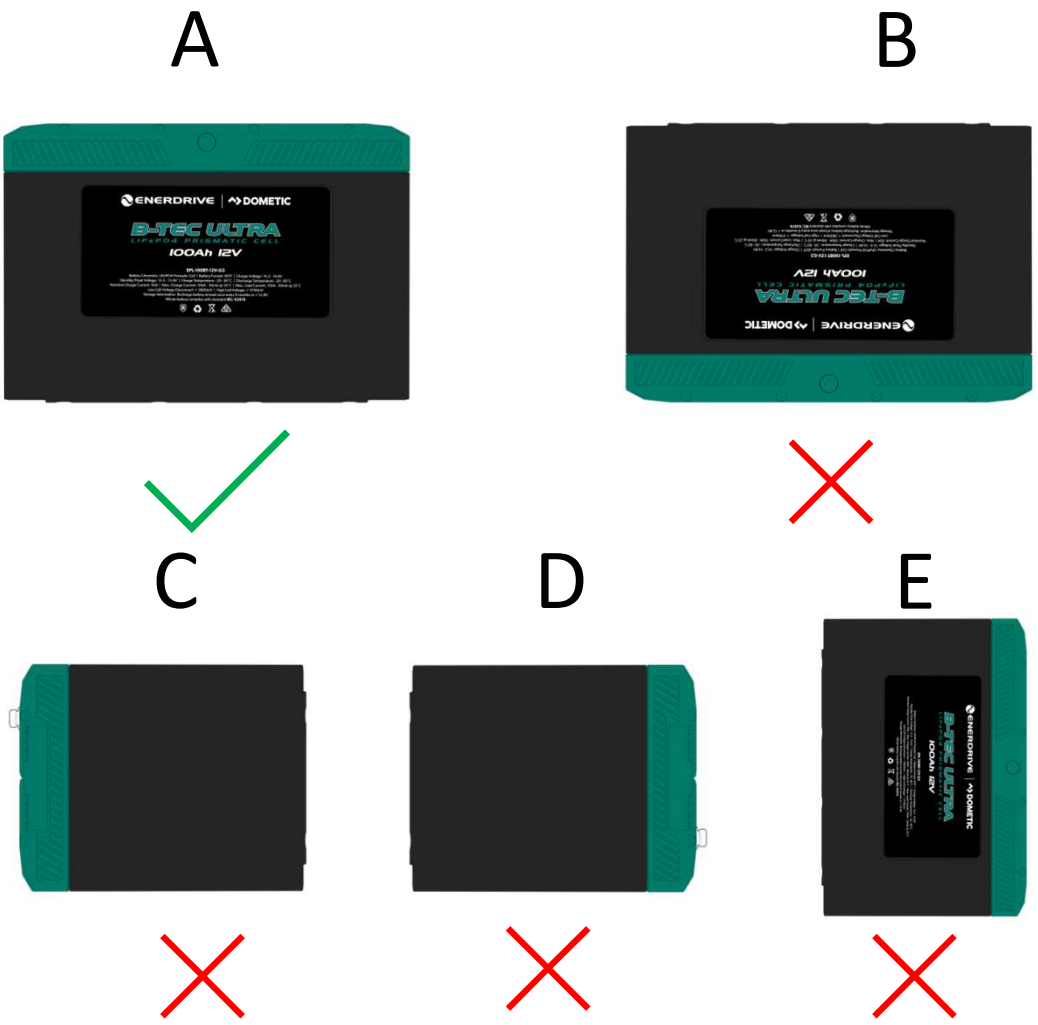


Figure 2

4.3 – Installation

Your B-TEC ULTRA battery must be securely mounted. Using he supplied battery trays, straps, or integrated mounting brackets are recommended for mounting. Ensure that sufficiently rated fasteners are used to hold the battery to the mounting material.

It is recommend that the battery is installed in an upright position.

If installation of B-TEC ULTRA batteries is within the accommodation areas (Habitable space) of an RV, caravan or any other Connectable electrical installation, then the battery/batteries need to be mounted into a sealed box that is vented to the outside. Please ensure that the installation of the B-TEC ULTRA battery complies to AS/NZS3001.2:2022

There should be 25mm clear space around the B-TEC Ultra battery.

Consideration should be taken to not mount the battery near any metallic service lines such as LPG, diesel, or petrol lines. This is to ensure no accidental shorting of the battery terminals occur, especially when fitting or removing the battery.

4.4 – Connection

It is recommended that no more than four terminals be connected to a battery terminal, if you do have more than 4 terminals the use of a fuse block and negative busbar are recommended.

Cable terminal should be in the order with heaviest current draw (largest cable) in contact with the battery to light estimated current draw (smallest cable) terminals on the top.

Use of insulating terminal boots is recommended, especially in areas where accidental shorting may occur, such as storage lockers or under lounges and beds.

Connect the Positive (Red) and Negative (Black) cables to the battery, ensuring you are using cable that is of adequate size for the demands of the system, and well crimped and protected termination lugs.

Example;
1000W Inverter - at least Guage 2 (35mm²)
2000W Inverter - at least Guage 00 (70mm²
3000W Inverter - at least Guage 000 (95mm²)

Standard	Unit												
AWG	0000	000	00	0	1	2	4	6	8	10	12	14	16
Diameter (mm)	11.68	10.4	9.27	8.25	7.35	6.54	5.19	4.11	3.26	2.26	2.05	1.63	1.29
Cross Section (mm²)	107.1	84.9	67.5	53.5	42.4	33.6	21.2	13.3	8.4	5.3	3.3	2.1	1.3

The spring washers must be used on the battery terminal bolts - they apply pressure to the lugs for a secure connection. There is no need to over-tighten the bolts, simply ensure there is no movement of the cables. Make sure the main Battery Cable lug is mounted directly onto the Battery terminal with no washers between them.

4.5 Installation Tray

4.5.1 Positioning: Find a suitable location that allows easy placement and removal of the battery into the tray.
4.5.2 Tray Placement: Place the tray in the chosen position, ensuring the straps are underneath and not under the feet of the tray.
4.5.3 Securing the Tray: Use appropriate fasteners for the material you are fastening into to screw the tray down securely.
4.5.4 Battery Installation: Place the battery into the tray and secure it with the provided strap(s).

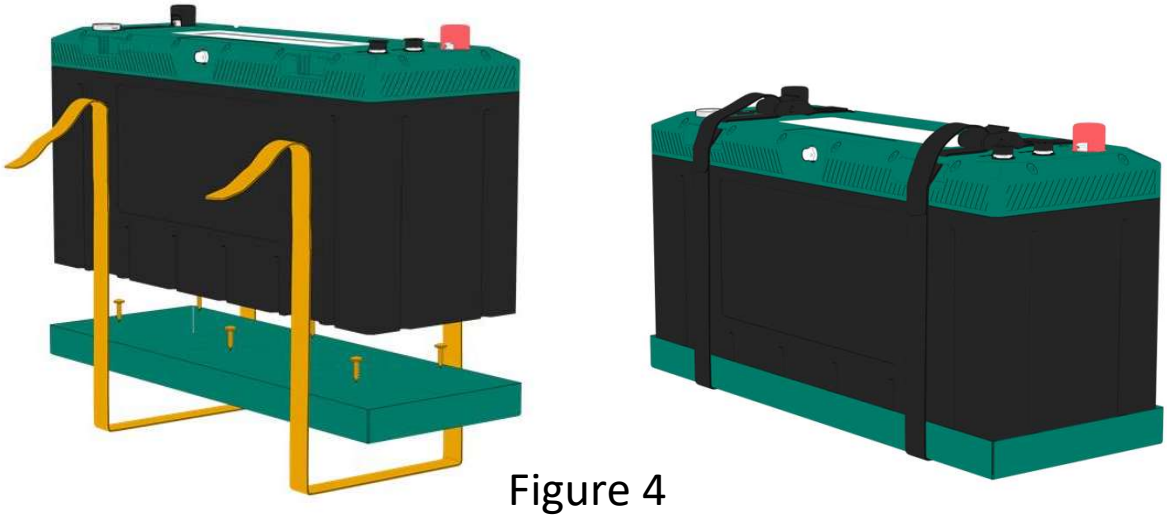


Figure 4

4.6 Storage

• Always ensure the battery is **recharged fully every 6 months** to maintain performance and avoid deep discharge.

• Regularly check the battery SOC, at least once per month, to ensure that it does not fully discharge while in storage.

• Always store the battery in a location free of severe vibrations, impact, or compression, and protected from direct sunlight and rain.

• The battery should be stored in a dry, clean, dark, and well-ventilated environment.

• The recommended storage temperature range is between 15 to 35°C.

• Always ensure that the area you intend to store your B-TEC Ultra battery is free of harmful gases, flammable and explosive materials, and corrosive chemicals.

5. Series and Parallel Connection of Batteries

5.1 Introduction

For different application scenarios, B-TEC ULTRA batteries can be used in series or parallel to achieve higher voltage or capacity.

The B-TEC ULTRA battery allows multiple batteries to be connected in series or parallel, as well as simultaneously connected in series and parallel.
This allows for the assembly of different voltage systems and the expansion of battery system capacity.

For example; Four x 12.8V200Ah batteries can be connected in series and parallel to form a 25.6V400Ah battery system.

When multiple sets of batteries are connected in series and parallel at the same time, in addition to external power lines, communication lines can be connected between the batteries to allow internal communication between the batteries to better obtain battery information. One battery can be set as the host/master battery, and the other batteries can be set as the slave battery. The host collects all information about other slave batteries, and can communicate with external devices such as inverters, display screens, MPPTs, etc.

Before connecting batteries in series or parallel, it is necessary to pay attention to:

a). The batteries must be of the same model. Different models, different capacities, and different voltage platforms, series and parallel connection is not allowed.

b). Ensure that all parallel wires are of the identical length.

c). ≤0.5C charging is recommended, that is, charging current = rated capacity of battery/batteries in Parallel x 0.5 (i.e. 300AH x 0.5 = ≤150A)

d). Before connecting the batteries in series and parallel, the voltage of each group of batteries must remain highly consistent. It is recommended that the voltage difference between battery packs be:

Voltage difference ＜ 500mV

NOTE: It is required to charge each battery to 100% independently prior to connecting together.

When batteries are connected in series and parallel, they will be charged and discharged as a whole system (Battery Bank)

5.2 Parallel usage

A maximum of 4 batteries should be used in parallel. Before connecting batteries in parallel, a multimeter needs to be used to test the voltage between the positive and negative terminals of the battery.

You can also check the battery voltage through the Bluetooth app to ensure that the voltage between the batteries does not exceed 0.5V, which can be connected in parallel.

If the voltage between the batteries exceeds 0.5V, each battery needs to be fully charged separately, left for 1 hour, and then used in parallel. (this should be done as best practice)

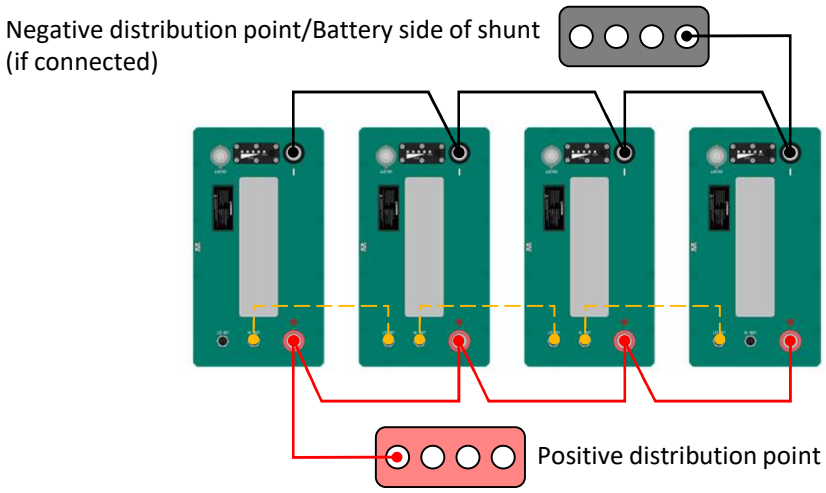


Figure 5

NOTE: Parallel cables need to be of equal length and size

Parallel usage – typical installation 1

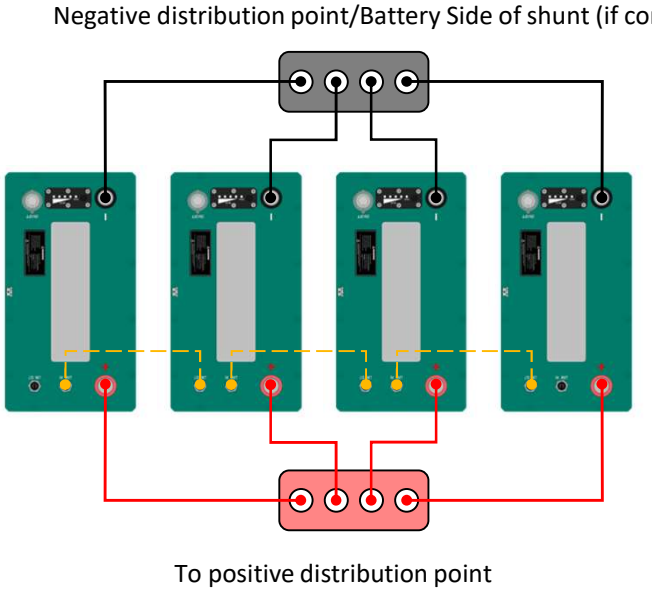
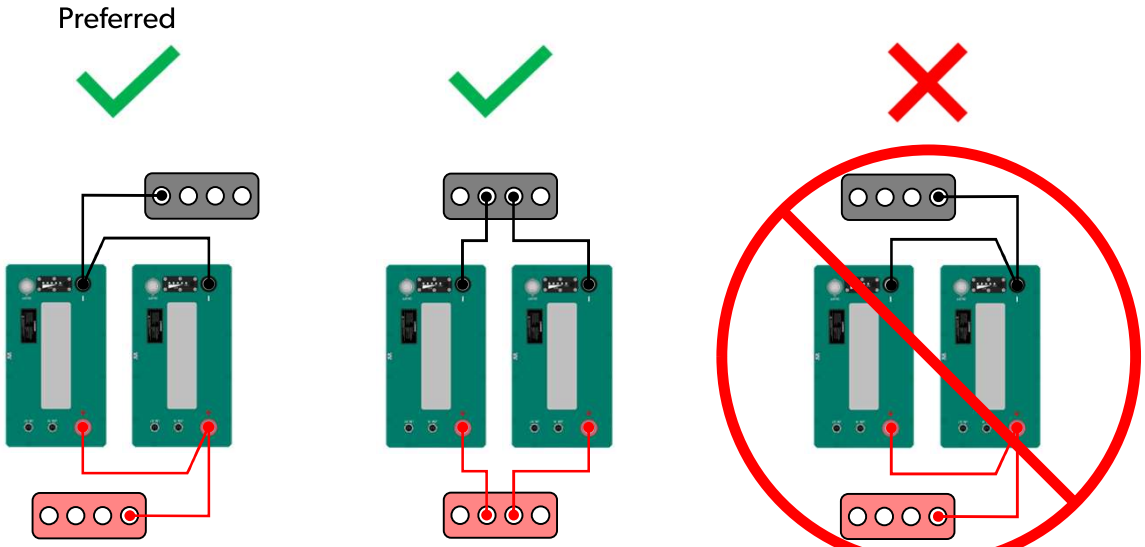


Figure 6

NOTE: Parallel cables need to be of equal length and size

Parallel usage – typical installation 2



System Voltage: 12.8v
System Capacity: 100Ah + 100Ah = 200Ah
*Parallel cables to be equal length

Caution! When Parallel connecting Do not connect main POS & NEG cables to the same battery, as you may Damage the battery.

Figure 7

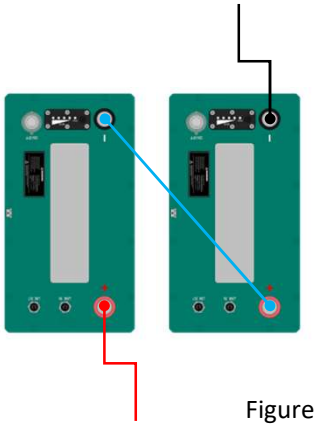
5.3 Series Connection

For higher voltage application scenarios, the B-TEC ULTRA batteries can be used in series

A maximum of 4 batteries can be used in series. Before connecting the batteries in series, a multimeter needs to be used to test the voltage between the positive and negative terminals of the battery. You can also check the battery voltage through the Bluetooth app to ensure that the voltage between the batteries does not exceed 0.5V. If the voltage between the batteries exceeds 0.5V, each battery needs to be fully charged separately, left for 1 hour, and then used in series (it is best practice to do this every time).

Series connection method: Connect the positive pole of the battery to the negative pole of the next battery, and so on.

For example, two 12.8V100Ah batteries connected in series



System Voltage: 12.8v x 2 = 25.6v
System Capacity: 100Ah

Figure 8

5.4 Simultaneous series and parallel

The B-TEC Ultra batteries allow simultaneous use of batteries in series and parallel, with a maximum support of 4 series and 4 parallel applications. The connection method is: first in series, then in parallel, which means that the batteries are connected in series to form a high voltage, and then in parallel to form a high capacity.

Voltage	Series	Max Allowed Parallel batteries
12.8v	1	4
25.6v	2	4
38.4v	3	4
51.2v	4	4

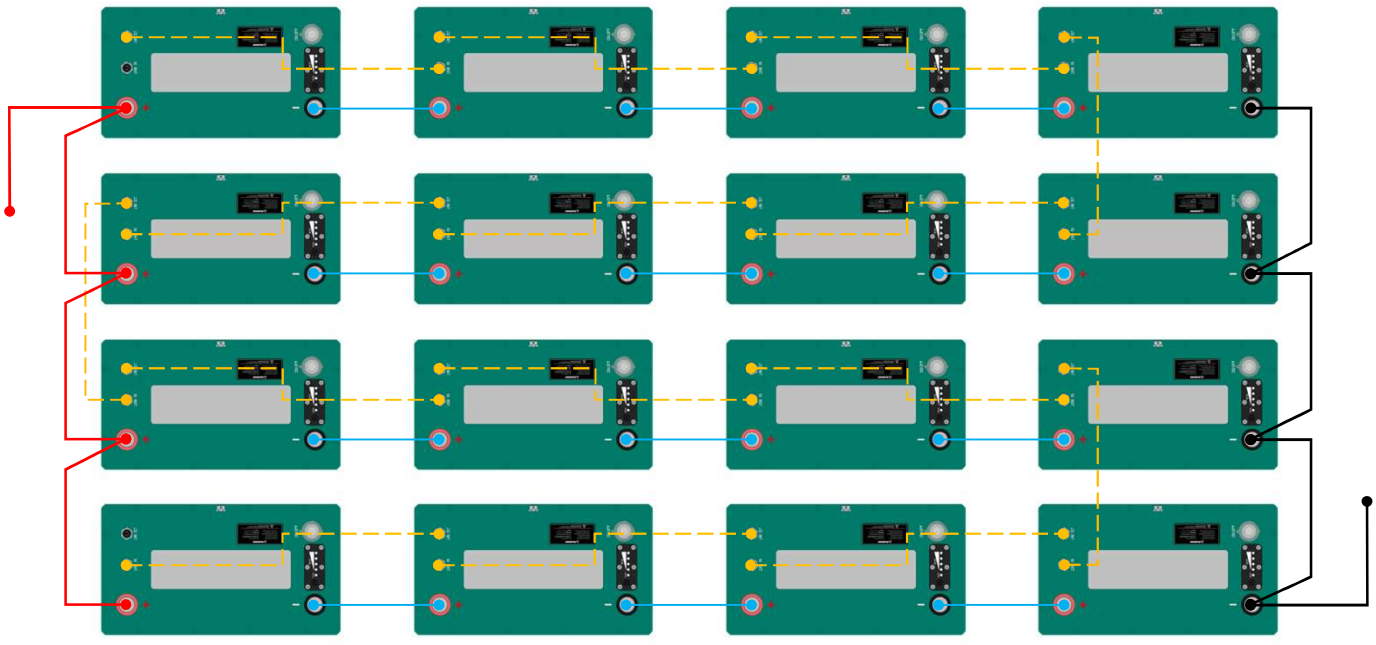


Figure 9

For Example: 16 x 12.8V100Ah Batteries, 4 in Series & 4 in Parallel
System Voltage: 12.8v x 4 = 51.2V
System Capacity: 100Ah x 4 = 400Ah

NOTE: Charge all batteries individually first before connecting together

6. Battery Communication

The B-TEC ULTRA batteries have the function of communication/networking between batteries and external devices. This is via a Controller Area Network (CAN) bus communication interface.
Two circular M8 DIN connectors are located on top of the battery to connect one battery's **(Link in)** to another battery's **(Link out)** using a CAN bus cable in a simple daisy link wire method.

Pay attention during Setup/installation.

6.1 External Devices

When the battery needs to communicate with external devices, you connect the external item to the battery network via the **(Link In)** of the first battery in the communication network.
The networking function can be used to enable the battery to summarise information.

The battery can be used alone or used for communication/networking, which is more prominent in some intelligent devices. When using this function, it is important to understand its purpose and carefully read the following instructions for correct operation.

A: Schematic diagram of single battery usage

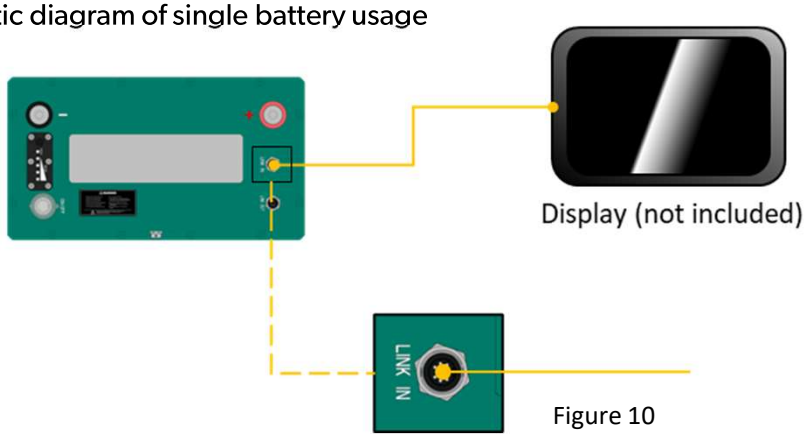


Figure 10

B: When multiple batteries are used in series or parallel, the external device communication line needs to be connected to the battery **Link in** of the first battery in the coms link.

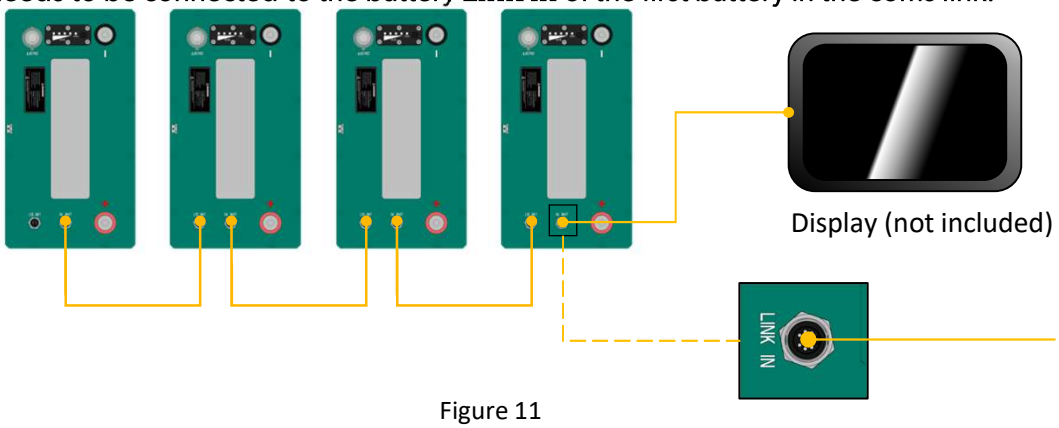


Figure 11

6.2 Communication terminal connection

Communication line connection method:

User can use an external communicated cable (optional) to connect to batteries and other device via CAN bus.

This allows for communication between the battery and the load or charger, making it more efficient to use the battery. This is also beneficial for understanding battery faults. If you have more questions about the CAN bus, please contact ENERDRIVE | DOMETIC for technical support.

For normal battery operation, the CAN bus function is not mandatory. The battery can automatically operate and protect itself; it does not require any CAN bus communication or external devices (such as external controllers) or other CAN bus connected batteries to operate.

NOTE: Retain the two black covers installed on the two M8 connectors to protect them from environmental influences when not in use.

6.3 Bluetooth App

The ENERDRIVE | DOMETIC B-TEC ULTRA battery incorporates a wireless Smart Phone Monitoring system. By downloading the Android™ or Apple® app to your Smart Phone or tablet device, you can monitor the following information;

- Battery Capacity
- Individual Cell Voltage
- Battery Voltage
- Battery Temperature
- Battery Current (Amps)
- Battery Cycles
- Battery State of Charge (SOC)
- Battery Alarms
- Battery Event Information
- Battery Status

Download on the App Store

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Alarm Definitions

- HV - High Voltage
- LV - Low Voltage
- OCC - Over Current Charge
- OCD - Over Current Discharge
- LTD - Low Temperature Discharge
- LTC - Low Temperature Charge
- HTD - High Temperature Discharge
- HTC - High Temperature Charge

* The red warning light is only an indicator, not a fault condition.

* The 3 vertical dots on the lower part of the main screen allows you to change the Bluetooth name of the battery. Touch the dots, and use 1234 as the password to enter your battery name.

* A notification will only appear in the notifications page if under alarm condition.

6.4 Networking method:

After connecting the battery through the communication cable, it is necessary to use the Bluetooth connection method through the smart APP to network the battery.
1. Equipment operation:

① Wiring: When all batteries are turned off, use the power line to connect the batteries in series and parallel (first in series and then in parallel);

Please refer to this chapter ;
5.2Parallel Use
5.3 Series Use
5.4 Simultaneous Series & Parallel Use

② The battery connected to external devices serves as the first battery (Battery1), and we define this battery as the host, while other batteries are the slaves;

The LINK 0UT of host battery 1 is connected to the LINK IN of slave battery 2,
Connect the LINK OUT of slave battery 2 to the LINK IN of slave battery 3; and so on.

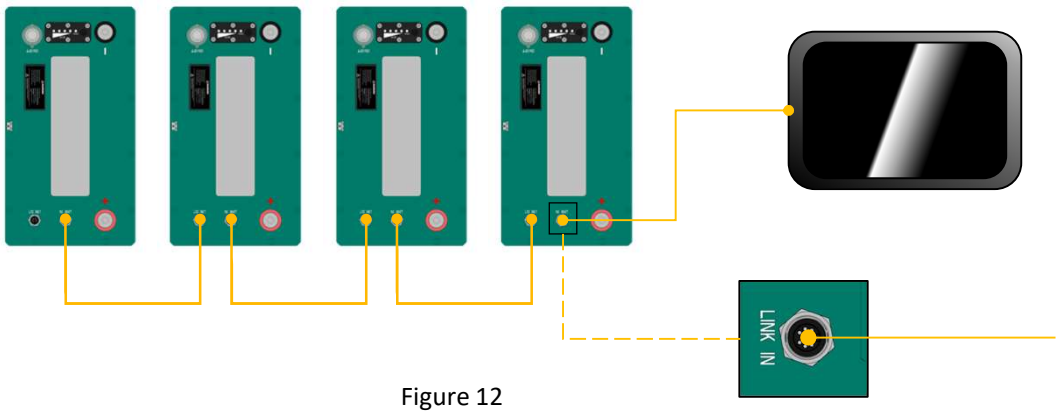

Figure 12

③ Turn on the battery power switch: switch from OFF to ON

④ Matching address: After pressing the host battery 1 System button for >10 seconds, the indicator light will start running. After all the indicator lights are OFF, it means that the internal address allocation of the battery is completed;

Attention !
The battery cables must be connected in a series first and then in parallel mode; The communication line should connect the first cluster of series connected batteries, and then connect the second cluster of series connected batteries, you cannot mix; The matching address must be selected battery1 as the host, and long press and hold the System button for > 10sec.

PLEASE NOTE: DO NOT select or press the System button of other slave batteries during this setup. This step is particularly important as improper operation may result in battery networking failure.

7. Charging requirements

We recommend using a charging source with specific lithium charging settings to meet the following charging requirements to achieve the optimal performance and lifespan of ENERDRIVE | DOMETIC B-TEC ULTRA battery/Batteries.

System Voltage	Recommended Charge Voltage	Recommended Float Voltage	Max. Charge Current	Recommended Charge Current	Operational Temperature
12V	14.2V	13.5V	1C	≤0.5C	Charge: 0~60°C Heater active -20~0°C
24V	28.4V	27.0V			
36V	42.6V	40.5v			Discharge: -20~65°C
48V	56.8V	54.0V			

Note 1: Charging to the Maximum voltage of 14.6V can cause batteries to trip the High voltage protection cutting the path for the solar and sometimes cause spiking of the system with solar voltage.

Note 2: Batteries with a heating function will automatically activate internal heating before switching to charging mode whenever charging is available between -20°C and 0°C.

7.1 AC-DC charger

Check if the AC-DC battery charger you plan to use has a dedicated lithium charging setting that meets the above charging requirements. Many battery chargers are only designed to charge Lead–acid battery and may not have appropriate lithium charging settings.

7.2 Solar charging

Check if the solar regulator you plan to use has a dedicated lithium charging setting that meets the above charging requirements. The ENERDRIVE | DOMETIC B-TEC ULTRA batteries must be charged using a solar regulator with a lithium charging settings. However, it must be set with a maximum charging voltage of no more than 14.6V for a single battery (58.4V on a series 48V system). After the battery is fully charged, it must return to the recommended floating voltage.

7.3 Charging with an Alternator via a DC-DC charger

Check if the DC-DC charger you plan to use has a dedicated lithium charging setting that meets the above charging requirements. The ENERDRIVE | DOMETIC B-TEC ULTRA batteries must be charged using a DC-DC Charger with a lithium charging settings. However, it must be set with a maximum charging voltage of no more than 14.6V for a single battery (58.4V on a series 48V system). After the battery is fully charged, it must return to the recommended floating voltage.

8. Freight – Before installation *(compiles to UN38.3)*

• During transportation, the battery must be protected from severe vibration, impact, or compression. It should also be shielded from direct sunlight and rain.

• Handle with care during loading and unloading. Avoid dropping, rolling, or stacking under heavy weight to prevent damage to the battery casing and terminals.

• For long-term storage, keep the battery in a dry, clean, dark, and well-ventilated indoor environment. Recommended storage temperature: 15°C to 35°C.

• The storage area should be free from corrosive chemicals, flammable or explosive materials, and harmful gases.

• Batteries must be transported (prior to permanent installation/mounting) at approximately 30–50% State of Charge (SOC), as per UN38.3 guidelines.

• Stacking batteries in cartons should not exceed 6 layers in the Upright position.

9. Warranty

In the unlikely event that a technical issue arises with an Dometic Power & Control (Enerdrive) Pty Ltd product, customers are encouraged to initially contact the Enerdrive Support Team on 1300 851 535 or support@enerdrive.com.au for immediate and efficient expertise and first class product support.

Dometic Power & Control (Enerdrive) Pty Ltd warrants that its Products will be free from defects in materials and workmanship (subject to limits, and in normal conditions, as described in the complete Enerdrive Warranty Policy) for up to 5 years from the date of purchase.

For full terms, conditions and claim process, refer to the Enerdrive website.
https://enerdrive.com.au/warranty/

10. Specifications




Item	B-TEC ULTRA 12V 300Ah	B-TEC ULTRA 12V 200Ah	B-TEC ULTRA 12V 120Ah	B-TEC ULTRA 12V 100Ah
Nominal Voltage	12.8V	12.8V	12.8V	12.8V
Nominal Energy	3840Wh	2560Wh	1536Wh	1280Wh
Nominal Capacity	300Ah	200Ah	120Ah	100Ah
Internal Resistance	≤30mΩ	≤30mΩ	≤30mΩ	≤30mΩ
Max. Load Current	300A @ 25°C	200A @ 25°C	150A @ 25°C	150A @ 25°C
Peak Discharge Curren	1000A-5s	800A-5s	500A-3s	500A-3s
Max. Charge Current	300A @ 25°C	200A @ 25°C	100A @ 25°C	100A @ 25°C
Nominal Charge Current	150A	100A	60A	50A
Charge Voltage	14.2 - 14.6V	14.2 - 14.6V	14.2 - 14.6V	14.2 - 14.6V
Standby Float Voltage	13.5 - 13.6V	13.5 - 13.6V	13.5 - 13.6V	13.5 - 13.6V
Charge Temperature	-20°C - 60°C	-20°C - 60°C	-20°C - 60°C	-20°C - 60°C
Discharge Temperature	-20°C - 60°C	-20°C - 60°C	-20°C - 60°C	-20°C - 60°C
Low Cell Voltage Disconnect	≤ 2.80V	≤ 2.80V	≤ 2.80V	≤ 2.80V
High Cell Voltage Disconnect	≥ 3.75V	≥ 3.75V	≥ 3.75V	≥ 3.75V
Cycle Life	6,000 Charge Cycles @ 80% DOD	6,000 Charge Cycles @ 80% DOD	6,000 Charge Cycles @ 80% DOD	6,000 Charge Cycles @ 80% DOD
Bluetooth App	Yes	Yes	Yes	Yes
Relief Valve	Yes	Yes	Yes	Yes
Heater	Yes	Yes	Yes	Yes
On/Off Switch	Yes	Yes	Yes	Yes
SOC Indicator	Yes	Yes	Yes	Yes
IP Rating	IP67	IP67	IP67	IP67
Certification at Cell Level	IEC62619	IEC62619	IEC62619	IEC62619
Terminal Type	M8 x2 Pos & x2 Neg Terminals (8-10N.M)	M8 x1 Pos & x1 Neg Terminals (8-10N.M)	M8 x1 Pos & x1 Neg Terminals (8-10N.M)	M8 x1 Pos & x1 Neg Terminals (8-10N.M)
Series Parallel	4 in Series & 4 in Parallel	4 in Series & 4 in Parallel	4 in Series & 4 in Parallel	4 in Series & 4 in Parallel
Mounting	Tray & Straps Included	Tray & Straps Included	Tray & Straps Included	Tray & Straps Included
Short Circuit Current	1200A-500μs	1200A-500μs	1000A-500μs	1000A-500μs
Dimensions (mm)	500 x 265 x 232.5	485 x 172 x 232.5	308 x 211 x 168	308 x 211 x 168
Weight	37.5kg ±1.0kg	23kg ±1.0kg	14kg ±1.0kg	12kg ±1.0kg

Document Part Number
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