



FOGSTAR ENERGY

LONG-LASTING, RELIABLE POWER

TECHNICAL SPECIFICATION BOOKLET



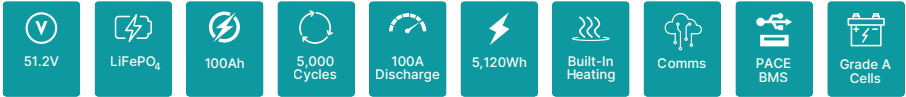
WWW.FOGSTAR-ENERGY.CO.UK



5.12kWh 51.2V

100Ah LiFePO₄ BATTERY

TECHNICAL SPECIFICATION SHEET



Specifications

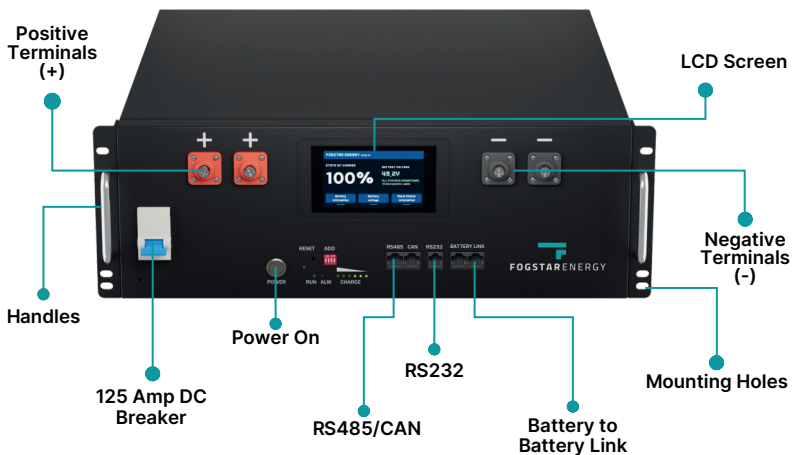
Rated Voltage (V)	51.2V
Maximum Charge (V)	57.6V
BMS	PACE 100A
Nominal Capacity (Ah)	100Ah
Minimum Capacity (Ah)	100Ah
Maximum Charge Current (A)	100A
Total Wh	5,120
Maximum Discharge	100A
Discharge Cut-off Voltage	43.2V
Discharge Temperature	-20°C to 60°C
Charging Temperature	-20°C to 45°C (heater enabled)
Storage Temperature	1 Month: -20°C ~ 60°C 3 Months: -10°C ~ 40°C 1 Year: -5°C ~ 20°C
Relative Humidity	45% ~ 85%
Cell Configuration	16S1P
Cycle Life	5,000 @ 95% DOD
Communication Ports	CAN, RS485, RS232
Design Life	15 years
Weight	45.2kg
Preloaded Inverter Protocols	Compatible with multiple LV inverters, including but not limited to LuxPower, Sunsynk, Victron and more.



Reliability by Design

At Fogstar, quality isn't an afterthought, it's our foundation. Every battery is engineered and tested to exacting standards, with meticulous attention to safety, consistency, and performance. From component selection to final assembly, our processes are built to deliver long-term reliability you can trust.





Safety Precautions



Never work on these batteries while powered or connected to the grid. Install only in suitable, safe environments by a qualified person, following all electrical codes. Ensure correct grounding, polarity, programming, cabling, and torque. Use only with compatible 51.2V systems. Never in series or with other chemistries. Keep away from heat, hazards, pets, and children. If overheating or burning smells occur, trip the breaker and call emergency services. Clean only with a dry cloth.

Battery Warranty

The Fogstar Energy 5.12kWh Rack battery comes with a 10-year warranty covering BMS failure, cell failure, temperature sensors, charging/discharging faults, and internal corrosion. Excludes misuse, tampering, incompatible systems, or accidental damage.

To submit a claim, contact Fogstar Customer Support:

✉ customerservice@fogstar.co.uk

☎ 01527 757980

Please include your proof of purchase and a clear description of the issue.

Parallel Connectivity

Up to 32 units can be connected in parallel (31 for Victron). These batteries **cannot** be connected in series.

Charging Parameters

Bulk: 57.6V

Float: 55.2V

Low DC cut off: 43.2V

Battery Connections

We supply 35mm² twin cables in both positive and negative. Each cable has a single M8 ring lug at one end, splitting into two M6 ring lugs at the other. These are intended as battery-to-battery links and are only required when connecting multiple rack batteries in parallel. For correct installation, always connect all negative conductors before attaching the positive.

Also included: an RS232-to-USB cable and a battery-to-battery communication cable (RS485-to-RS485), ensuring straightforward system integration.

Updating the Inverter Protocol

The PACE Battery Management System (BMS) seamlessly integrates with a wide range of popular inverters, containing pre-loaded protocols for, but not limited to, LuxPower, Sunsynk, Victron and more. Changing the inverter protocol doesn't involve any complex software downloads; you can change it simply by navigating the LCD Touchscreen.

Battery Heating

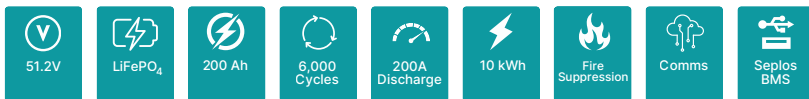
The integrated heating system activates below 5 °C, enabling safe charging at 0 °C and reliable operation in ambient temperatures down to -20 °C.



IP65-RATED 10kWh 51.2V

200Ah LiFePO₄ BATTERY

TECHNICAL SPECIFICATION SHEET



Specifications

Rated Voltage (V)	51.2V
Maximum Charge (V)	57.6V
BMS	SEPLoS 200A
Nominal Capacity (Ah)	200Ah
Minimum Capacity (Ah)	200A
Maximum Charge Current (A)	200A
Total Wh	10,240
Maximum Discharge	200A
Discharge Cut-off Voltage	43.2V
Discharge Temperature	-20°C to 40°C
Charging Temperature	-10°C to 40°C (heater enabled)
Storage Temperature	1 Month: -10°C ~ 35°C 3 Months: 25 ±2 °C
Relative Humidity	65% ±10%
Cell Configuration	2P16S
Cycle Life	6,000 @ 91% DOD
Communication Ports	CAN, RS485
Design Life	15 years
Weight	98kg
IP Rating	IP65
Preloaded Inverter Protocols	Compatible with multiple LV inverters, including but not limited to LuxPower, Sunsynk, Victron and more.



Built-In Fire Suppression Unit

Our ultra-thin, built-in aerosol unit stops fires the moment they start. When temperatures spike to 170°C, the system releases a fast-acting potassium aerosol that instantly disrupts the fire's chemical reaction. Result: rapid suppression, zero maintenance, and reliable protection for enclosed electrical spaces.





Safety Precautions



Never work on these batteries while powered or connected to the grid. Install only in suitable, safe environments by a qualified person, following all electrical codes. Ensure correct grounding, polarity, programming, cabling, and torque. Use only with compatible 51.2V LV systems. Never in series or with other chemistries. Keep away from heat, hazards, pets, and children. Clean only with a dry cloth.

Battery Warranty

The Fogstar Energy 10kWh battery comes with a 6-year warranty and 10-year customer support, covering BMS failure, cell failure, temperature sensors, charging/discharging faults, and internal corrosion. Excludes misuse, tampering, incompatible systems, or accidental damage.

To submit a claim, contact Fogstar Customer Support:

✉ customerservice@fogstar.co.uk

☎ 01527 757980

Please include your proof of purchase and a clear description of the issue.

Parallel Connectivity

Up to 16 units can be connected in parallel. These batteries **cannot** be connected in series.

Charging Parameters

Bulk: 57.6V

Float: 55.2V

Low DC cut off: 43.2V

Battery Connections

We supply a pair of 1.5m battery cables with Amphenol connector, designed for reliable battery-to-battery communication and power linking in parallel setups. For correct installation, always connect all negative conductors before the positive.

A 1.5m communication cable is included for RS485/CAN data exchange, along with a 1.8m PC cable for direct computer connection, system setup, and diagnostics.

These accessories allow the battery to integrate easily into both single-unit and multi-unit configurations.

Updating the Inverter Protocol

This battery seamlessly integrates with a wide range of popular inverters, containing pre-loaded protocols for, but not limited to, LuxPower, Sunsynk, Victron and more. Changing the inverter protocol doesn't involve any complex software downloads; you can change it simply by navigating the LCD Touchscreen.

Battery Heating

The integrated heating system activates below 5 °C, enabling safe charging at 0 °C and reliable operation in ambient temperatures down to -20 °C.



16.1kWh 51.2V

IP65-RATED 314Ah LiFePO₄ BATTERY

TECHNICAL SPECIFICATION SHEET



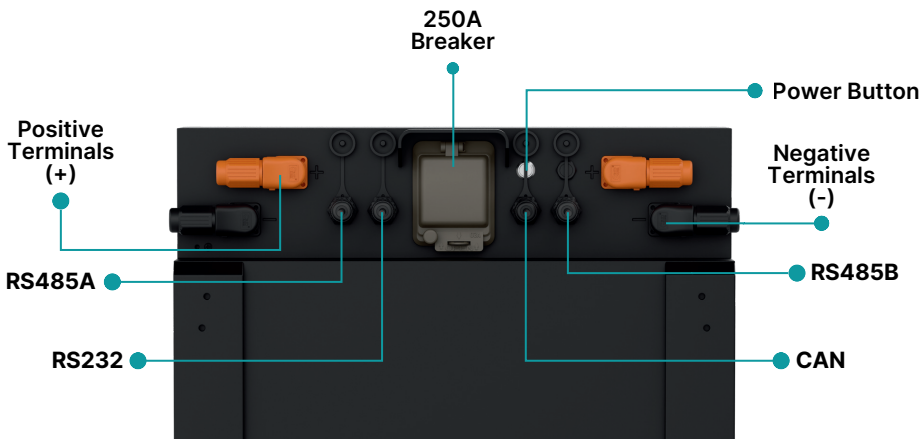
Specifications	
Rated Voltage (V)	51.2V
Maximum Charge (V)	57.6V
BMS	PACE 200A
Nominal Capacity (Ah)	314Ah
Minimum Capacity (Ah)	314Ah
Maximum Charge Current (A)	200A
Total Wh	16,076.8
Maximum Discharge	200A
Discharge Cut-off Voltage	43.2V
Discharge Temperature	-20°C to 60°C
Charging Temperature	-20°C to 45°C (heater enabled)
Storage Temperature	1 Month: -20°C ~ 60°C 1 Year: 0°C ~ 35°C
Relative Humidity	45% ~ 85%
Cell Configuration	16S1P
Cycle Life	8,000 @ 80% DOD (95% as of February 2026)
Communication Ports	CAN, RS485, RS232
Design Life	15 years
Weight	128.8kg
Active Balancer	2A
Preloaded Inverter Protocols	Compatible with multiple LV inverters, including but not limited to LuxPower, Sunsynk, Victron and more.



Built-In Fire Suppression Unit

Our ultra-thin, built-in aerosol unit stops fires the moment they start. When temperatures spike to 170°C, the system releases a fast-acting potassium aerosol that instantly disrupts the fire's chemical reaction. Result: rapid suppression, zero maintenance, and reliable protection for enclosed electrical spaces.





Dimensions

500(L) × 232(W) × 915(H)mm

Safety Precautions



Due to its significant weight (128.8kg), it's crucial to have at least six people assist with lifting, adhering to safety regulations.

Never work on these batteries while powered or connected to the grid. Install only in suitable, safe environments by a qualified person, following all electrical codes. Ensure correct grounding, polarity, programming, cabling, and torque. Use only with compatible 51.2V systems. Never in series or with other chemistries. Keep away from heat, hazards, pets, and children. If overheating or burning smells occur, trip the breaker and call emergency services. Clean only with a dry cloth.

Battery Warranty

The Fogstar Energy IP-Rated 16.1kWh battery comes with a 10-year warranty covering BMS failure, cell failure, temperature sensors, charging/discharging faults, and internal corrosion.

To submit a claim, contact Fogstar Customer Support:

✉ customerservice@fogstar.co.uk

☎ 01527 757980

Please include your proof of purchase and a clear description of the issue.

Parallel Connectivity

Up to 15 units can be connected in parallel. These batteries **cannot** be connected in series.

Charging Parameters

Bulk: 57.6V

Float: 55.2V

Low DC cut off: 43.2V

Battery Connections

We supply a pair of 1.5m battery cables with Amphenol connector, designed for reliable battery-to-battery communication and power linking in parallel setups. For correct installation, always connect all negative conductors before the positive.

A 1.5m communication cable is included for RS485/CAN data exchange, along with a 1.8m PC cable for direct computer connection, system setup, and diagnostics.

These accessories allow the battery to integrate easily into both single-unit and multi-unit configurations.

Updating the Inverter Protocol

The PACE Battery Management System (BMS) seamlessly integrates with a wide range of popular inverters, containing pre-loaded protocols for, but not limited to, LuxPower, Sunsynk, Victron and more. Changing the inverter protocol doesn't involve any complex software downloads; you can change it simply by navigating the LCD Touchscreen.

Battery Heating

The integrated heating system activates below 5 °C, enabling safe charging at 0 °C and reliable operation in ambient temperatures down to -20 °C.



16.1kWh 51.2V

ECO 314Ah LiFePO₄ BATTERY

TECHNICAL SPECIFICATION SHEET



Specifications

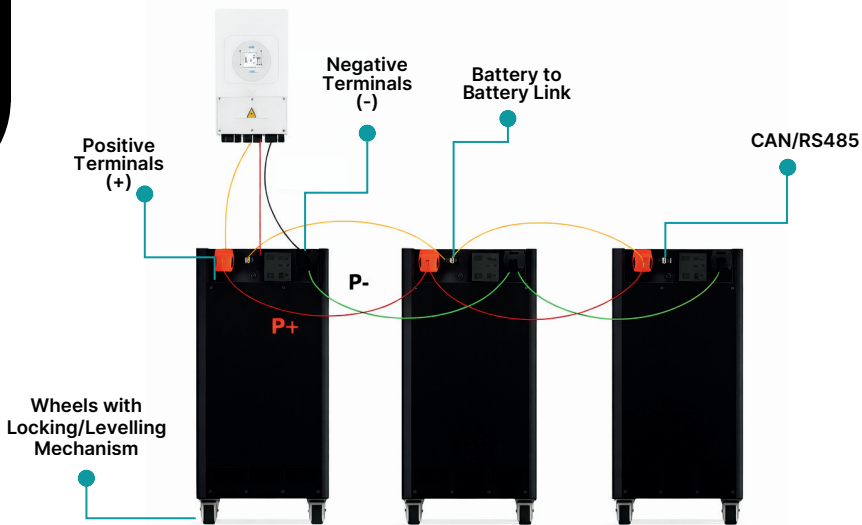
Rated Voltage (V)	51.2V
Maximum Charge (V)	57.6V
BMS	SEPLoS 200A
Nominal Capacity (Ah)	314Ah
Minimum Capacity (Ah)	314Ah
Maximum Charge Current (A)	200A
Total Wh	16,076.8
Maximum Discharge	200A
Discharge Cut-off Voltage	43.2V
Discharge Temperature	-20°C to 40°C
Charging Temperature	-10°C to 40°C
Storage Temperature	1 Month: -10°C ~ 35°C 3 Months: 25 ±2 °C
Relative Humidity	65% ~ 20%
Cell Configuration	16S1P
Cycle Life	8,000 @ 91% DOD
Communication Ports	CAN, RS485, RS232
Design Life	15 years
Weight	119.5kg
Active Balancer	2A
Preloaded Inverter Protocols	Compatible with multiple LV inverters, including but not limited to LuxPower, Sunsynk, Victron and more.



Built-In Fire Suppression Unit

Our ultra-thin, built-in aerosol unit stops fires the moment they start. When temperatures spike to 170°C, the system releases a fast-acting potassium aerosol that instantly disrupts the fire's chemical reaction. Result: rapid suppression, zero maintenance, and reliable protection for enclosed electrical spaces.





Safety Precautions



Due to its significant weight (119.5kg), it's crucial to have at least six people assist with lifting, adhering to safety regulations.

Never work on these batteries while powered or connected to the grid. Install only in suitable, safe environments by a qualified person, following all electrical codes. Ensure correct grounding, polarity, programming, cabling, and torque. Use only with compatible 51.2V systems. Never in series or with other chemistries. Keep away from heat, hazards, pets, and children. If overheating or burning smells occur, trip the breaker and call emergency services. Clean only with a dry cloth.

Battery Warranty

The Fogstar Energy 16.1kWh ECO battery comes with a 6-year warranty and 10-year customer support, covering BMS failure, cell failure, temperature sensors, charging/discharging faults, and internal corrosion. A full warranty document can be found on our website www.fogstar.co.uk.

To submit a claim, contact Fogstar Customer Support:

✉ customerservice@fogstar.co.uk

☎ 01527 757980

Please include your proof of purchase and a clear description of the issue.

Parallel Connectivity

Up to 16 units can be connected in parallel. These batteries **cannot** be connected in series.

Charging Parameters

Bulk: 57.6V

Float: 55.2V

Low DC cut off: 43.2V

Battery Connections

We supply 1.5m, 50mm² battery cables terminated with M8 ring lugs, suitable for direct connection between the battery and inverter, or via an external busbar. For correct installation, connect all negative conductors before attaching the positive.

The supplied cables are compatible with most inverters; however, in certain configurations, it may be necessary to route the battery cables to a busbar and then use the manufacturer-supplied inverter leads for the final connection.

A 1.5m communication cable is also included, enabling straightforward data integration.

Updating the Inverter Protocol

Compatible with multiple LV inverters, including but not limited to LuxPower, Sunsynk, Victron, Voltacon and more.

JK Active Balancer

The 2A JK active balancer ensures cell balancing by actively transferring energy between cells. It will automatically activate whenever significant disparity is detected in the pack. This results in improved efficiency, longer battery lifespan, and more stable performance across the pack.

Battery Heating

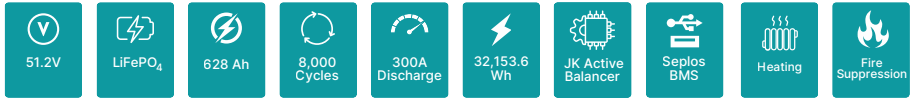
The integrated heating system activates below 5 °C, enabling safe charging at 0 °C and reliable operation in ambient temperatures down to -20 °C.



32kWh 51.2V

628Ah LiFePO₄ BATTERY

TECHNICAL SPECIFICATION SHEET



Specifications

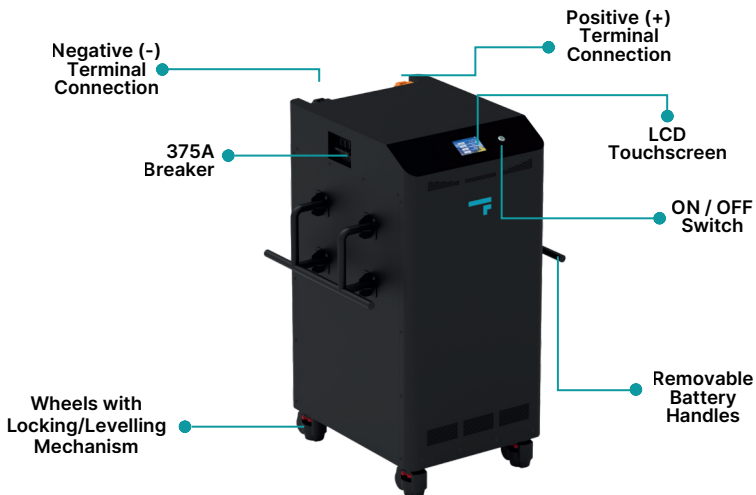
Rated Voltage (V)	51.2V
Maximum Charge (V)	57.6V
BMS	SEPLoS 300A
Nominal Capacity (Ah)	628Ah
Minimum Capacity (Ah)	628Ah
Maximum Charge Current (A)	300A
Total Wh	32,153.6
Maximum Discharge	300A
Discharge Cut-off Voltage	43.2V
Discharge Temperature	-20°C to 40°C
Charging Temperature	-10°C to 40°C
Storage Temperature	1 Month: -10°C ~ 35°C 3 Months: 25 ± 2 °C
Relative Humidity	65% ~ 20%
Cell Configuration	2P16S
Cycle Life	8,000 @ 91% DOD
Communication Ports	CAN, RS485
Design Life	15 years
Weight	230kg
Active Balancer	2A
Preloaded Inverter Protocols	Compatible with multiple LV inverters, including but not limited to LuxPower, Sunsynk, Victron and more.



Built-In Fire Suppression Unit

Our ultra-thin, built-in aerosol unit stops fires the moment they start. When temperatures spike to 170°C, the system releases a fast-acting potassium aerosol that instantly disrupts the fire's chemical reaction. Result: rapid suppression, zero maintenance, and reliable protection for enclosed electrical spaces.





Safety Precautions



Due to its significant weight (230kg), it's crucial to have at least ten people assist with lifting, adhering to safety regulations.

Never work on these batteries while powered or connected to the grid. Install only in suitable, safe environments by a qualified person, following all electrical codes. Ensure correct grounding, polarity, programming, cabling, and torque. Use only with compatible 51.2V systems. Never in series or with other chemistries. Keep away from heat, hazards, pets, and children. If overheating or burning smells occur, trip the breaker and call emergency services. Clean only with a dry cloth.

Battery Warranty

The Fogstar Energy 32kWh battery comes with a 6-year warranty and 10-year customer support, covering BMS failure, cell failure, temperature sensors, charging/discharging faults, and internal corrosion. Excludes misuse, tampering, incompatible systems, or accidental damage.

To submit a claim, contact Fogstar Customer Support:

✉ customerservice@fogstar.co.uk

☎ 01527 757980

Please include your proof of purchase and a clear description of the issue.

Parallel Connectivity

Up to 16 units can be connected in parallel. These batteries **cannot** be connected in series.

Charging Parameters

Bulk: 57.6V

Float: 55.2V

Low DC cut off: 43.2V

Battery Connections

We supply 1.5m, 95mm² battery cables terminated with M8 ring lugs, suitable for direct connection between the battery and inverter, or via an external busbar. For correct installation, connect all negative conductors before attaching the positive.

The supplied cables are compatible with most inverters; however, in certain configurations, it may be necessary to route the battery cables to a busbar and then use the manufacturer-supplied inverter leads for the final connection.

A 1.5m communication cable is also included, enabling straightforward data integration.

Updating the Inverter Protocol

The Seplos BMS seamlessly integrates with a wide range of popular inverters, containing pre-loaded protocols for, but not limited to, LuxPower, Sunsynk, Victron and more. Changing the inverter protocol doesn't involve any complex software downloads; you can change it simply by navigating the LCD Touchscreen.

JK Active Balancer

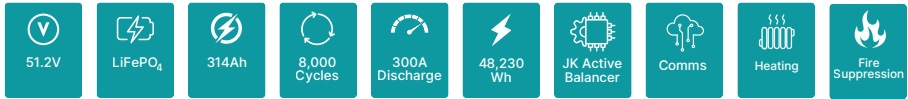
The 2A JK active balancer ensures cell balancing by actively transferring energy between cells. It will automatically activate whenever significant disparity is detected in the pack. This results in improved efficiency, longer battery lifespan, and more stable performance across the pack.



48.3kWh 51.2V

Stackable 314Ah LiFePO₄ BATTERY

TECHNICAL SPECIFICATION SHEET



This modular battery system is designed for scalable energy storage across a wide range of applications. Each stack delivers 48kWh or 64kWh of capacity, with an integrated control unit managing the system as a single, unified solution. Multiple stacks can be combined to scale total storage up to 1.28MWh. IP-rated and heated, the system is built for reliable performance in demanding environments.

Specifications	48.3kWh	64.4kWh
Rated Voltage (V)	51.2V	
Maximum Charge (V)	57.6	
BMS	150A	
Nominal Capacity (Ah)	314Ah	
Maximum Charge Current (A)	300A	
Total Wh	48,230	64,307
Maximum Discharge	300A	
Discharge Cut-off Voltage	43.2V	
Discharge Temperature	-20°C to 45°C	
Charging Temperature	-15°C to 45°C	
Relative Humidity	5% - 65%	
Cell Configuration	3*16S1P	4*16S1P
Cycle Life	8000 @ 91% DOD	
Communication Ports	CAN/RS485	
Weight	394kg	517kg
IP-Rating	IP65	
Preloaded Inverter Protocols	Compatible with multiple LV inverters, including but not limited to LuxPower, Sunsynk, Victron and more.	



Built-In Fire Suppression Unit

Our ultra-thin, built-in aerosol unit stops fires the moment they start. When temperatures spike to 170°C, the system releases a fast-acting potassium aerosol that instantly disrupts the fire's chemical reaction. Result: rapid suppression, zero maintenance, and reliable protection for enclosed electrical spaces.

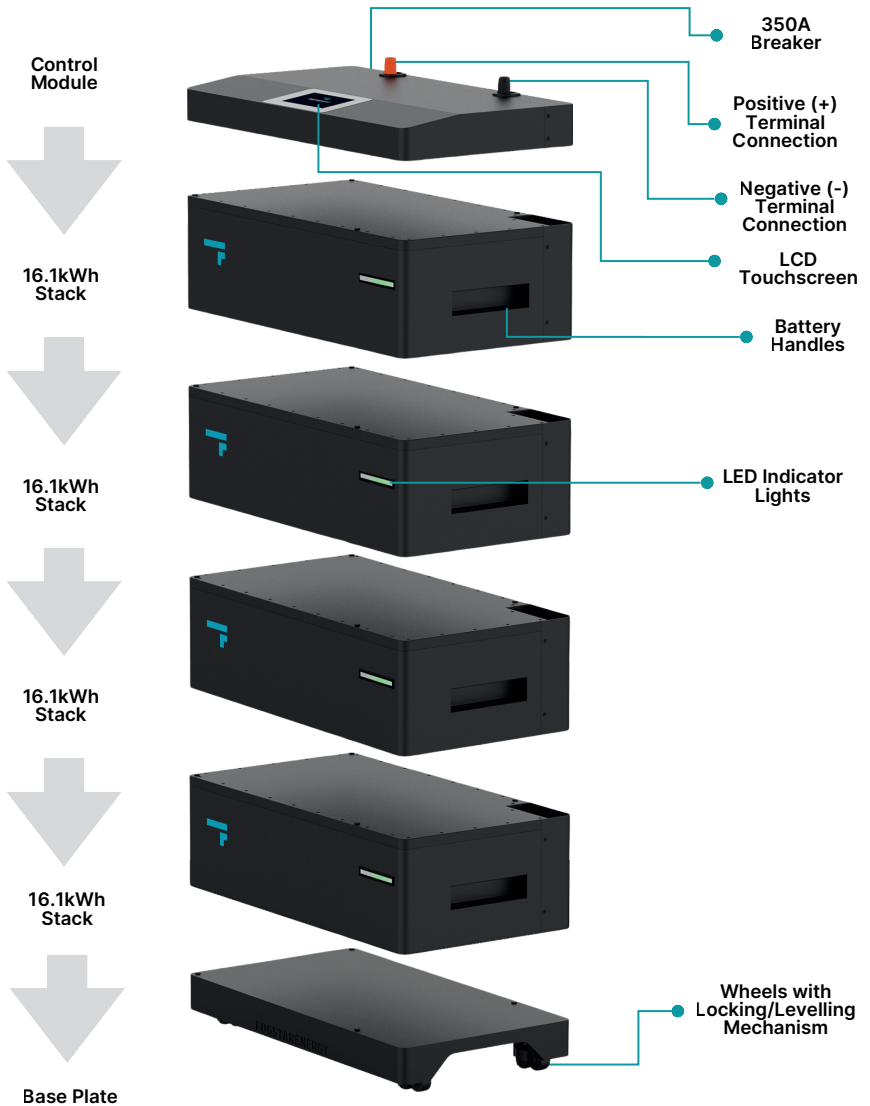




48.3kWh 51.2V

Stackable 314Ah LiFePO₄ BATTERY

TECHNICAL SPECIFICATION SHEET





Safety Precautions



Due to its significant weight (123kg per 16.1kWh stack), it's crucial to have at least five people assist with lifting, adhering to safety regulations.

Never work on these batteries while powered or connected to the grid. Install only in suitable, safe environments by a qualified person, following all electrical codes. Ensure correct grounding, polarity, programming, cabling, and torque. Use only with compatible LV 51.2V systems. Never in series or with other chemistries. Keep away from heat, hazards, pets, and children. If overheating or burning smells occur, trip the breaker and call emergency services. Clean only with a dry cloth.

Only connect a maximum of four (4) battery modules per stack.

Battery Warranty

The Fogstar Energy 48.3kWh and 64.4kWh battery comes with a 6-year warranty and 10-year customer support, covering BMS failure, cell failure, temperature sensors, charging/discharging faults, and internal corrosion. A full warranty document can be found on our website www.fogstar.co.uk.

To submit a claim, contact Fogstar Customer Support:

✉ customerservice@fogstar.co.uk
☎ 01527 757980

Please include your proof of purchase and a clear description of the issue.

Battery Dimensions (LxWxH mm)

48.3kWh: 830x450x949
64.4kWh: 830x450x1199

The system height is modular, with each battery stack having a height of 250mm, and the combined base and control module contributing a total height of 199mm. This modular construction allows the overall height to increase in line with the number of battery stacks while maintaining the same footprint.

Charging Parameters

Bulk: 57.6V
Float: 55.2V
Low DC cut off: 43.2V

Battery Connections

The system is supplied with pre-terminated 95 mm² battery power cables for straightforward installation. These enable direct connection between the battery system and inverter, or via an external busbar where required.

Battery to battery cables are terminated with Amphenol connectors for secure, low-resistance connections.

A 1.5 m communication cable are also supplied to enable system control and data integration. The supplied power cables are compatible with most inverter systems. In some installations, battery cables may be routed to a busbar, with manufacturer-supplied inverter leads used for the final connection. For correct installation, all negative connections must be made before connecting the positive.

Updating the Inverter Protocol

Compatible with multiple LV inverters, including but not limited to LuxPower, Sunsynk, Victron, Voltacon and more.

Jk Active Balancer

The 2A JK active balancer ensures cell balancing by actively transferring energy between cells. It will automatically activate whenever significant disparity is detected in the pack. This results in improved efficiency, longer battery lifespan, and more stable performance across the pack.

Battery Heating

The integrated heating system activates below 5 °C, enabling safe charging at 0 °C and reliable operation in ambient temperatures down to -20 °C.

LED Indicator Lights

●	Alarm / Error
●	Low Battery
●	Charging / Fully Charged



5.12V 51.2V RACK STORAGE CABINETS

Our Fogstar Energy Storage Cabinets are designed in the UK and built from high-quality materials using innovative engineering techniques.

They're fully compatible with our 5.12kWh Fogstar Energy rack batteries, supporting up to 32 units in parallel (31 when used with Victron systems).

Many manufacturers recommend linking batteries through their positive and negative terminals, but in our experience this can cause cell imbalances. That's why our cabinets use a busbar system, ensuring the load is distributed evenly across every cell.

You'll immediately notice the integrated, heavy-duty nickel-plated copper busbars, designed to make parallel connections simple, reliable, and efficient.

Our cabinets come in the following sizes;

3 Rack Cabinet (15kWh)

6 Rack Cabinet (30kWh)

IP-Rated 8 Rack Cabinet (40.96kWh)

FEATURES



Vented Panelling

The cabinets feature vented panelling at the front of the units, allowing air to flow around the battery units.



Cable access

The cabinets incorporate two, circular cut-out cable access points in both the bottom and top of the units. These allow for a neat and tidy cabling system.



Nickle Plated Busbar

Thick nickel plated copper busbars, enable users to connect our batteries in parallel with ease.



IP-rated Option

The IP56-rated cabinet is weather-ready, protecting against dust and water ingress for dependable outdoor use.



3 Rack Cabinet (15kWh)



6 Rack Cabinet (30kWh)



IP-Rated 8 Rack Cabinet (40.96kWh)



From compact rack-mounted batteries to high-capacity modular systems, each unit is designed to deliver reliable, long-term energy storage with advanced battery management and integrated safety features. This quick reference highlights the essential differences across the range, making it easier to select the right solution for your installation requirements, whether for residential, commercial, or large-scale energy storage systems.

QUICK SPECIFICATIONS

	5.12kWh Rack Battery	10kWh	16.1kWh ECO	16.1kWh	32kWh	48.3kWh
FEATURES						
Capacity	100Ah	200Ah	314Ah	314Ah	628Ah	314Ah
Cycle Life	4000 cycles @ 95% DOD	6000 cycles @ 91% DOD	8000 cycles @ 91% DOD	8000 cycles @ 95% DOD	8000 cycles @ 91% DOD	8000 cycles @ 91% DOD
BMS	PACE 100A	Seplos 200A	Seplos 200A	PACE 200A	Seplos 300A	Seplos 300A
Active Balancing	✗	✗	2A JK	2A JK	2A JK	2A JK
Max. Discharge	100A	200A	200A	200A	300A	300A
Heating	✓	✓	✓	✓	✓	✓
IP Rating	✗	IP65	✗	IP65	✗	IP65
LCD Touchscreen	✓	✓	✓	✓	✓	✓
Scalability	Up to 32 batteries	Up to 16 batteries	Up to 16 batteries	Up to 15 batteries	Up to 16 batteries	Up to 16 stacks
Weight	45.2Kg	98kg	119.5Kg	140Kg	233Kg	394kg
Warranty	10 Years	6 Years + 10 Years Support	6 Years + 10 Years Support	10 Years	6 Years + 10 Years Support	6 Years + 10 Years Support
Cells	EVE	CORNEX	CORNEX	EVE	CORNEX	CORNEX
Terminals	POST	AMPHENOL	POST	AMPHENOL	POST	AMPHENOL