Advanced Lithium Battery

Superieur Packs

WhisperConnect | LiFePo4 Iron Phosphate Technology

The Modular Battery Pack System with 12 V – 140 Ah lithium-iron-phosphate ($LiFePO_4$) modules delivers reliable, high-density energy storage for a wide range of mobile and stationary applications. Built for flexibility and scalability, each module can be used as a stand-alone 12 V unit or combined in series and/or parallel to create high power and/or 24voltage battery banks that match your system's needs.

Installation is designed to be as simple as it gets: **pack them, rack them, configure them, connect them and forget them**. The standardized plug-and-play design reduces installation time, minimizes commissioning errors, and allows you to expand or re-configure your energy system whenever needed.

Each module is equipped with an advanced Battery Management System (BMS) that not only monitors cell voltages, temperature, and current to safeguard performance and extend service life, but also **makes smart decisions in abnormal operating conditions** for example, managing the safe paralleling of a fully charged module with a depleted one. This intelligent protection ensures system stability and protects both the batteries and the connected power electronics.

A dedicated can bus **remote monitoring interface** provides a complete overview of the entire battery bank while also allowing in-depth diagnostics of an individual module. This enables fast, precise analysis for service, performance tracking, and preventive maintenance — even from off-site locations.

The rugged, IP-rated housing provides protection against dust, moisture, and vibration, ensuring dependable operation in marine, off-grid, industrial, and heavy-duty vehicle environments. Integrated communication interfaces provide real-time data for system monitoring, making the battery easy to supervise while requiring minimal routine maintenance.

By combining proven $LiFePO_4$ chemistry with a truly modular, plug-and-play architecture, the 12 V – 140 Ah Modular Battery Pack System delivers a **"configure-and-forget"** energy solution efficient, safe, and ready for the demands of today's and tomorrow's power systems.

Welcome to the introduction of our superior LFP battery pack systems.

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Application Data

	Lithium Battery Superieur 12VDC | 140Ahr | 1848Wh	Lithium Battery Superieur 12VDC | 280Ahr | 3696Wh	Lithium Battery Superieur 12VDC | 560Ahr | 7392Wh
Article Number	**40291220**	**40291230**	**40291240**
Electrical Parameters			
Nominal Voltage	12.0 Vdc	12.0 Vdc	12.0 Vdc
Open Circuit Voltage	13.2 Vdc	13.2 Vdc	13.2 Vdc
Typical Capacity	140 Ah	280 Ah	560 Ah
Minimal Capacity	135 Ah	270 Ah	540 Ah
Energy	1848 Wh	3696 Wh	7392 Wh
Resistance	<5 mΩ	<5 mΩ	<5 mΩ
Efficiency	>99 %	>99 %	>99 %
Cycle Life	>3500 cycles at 1C, 80 % DoD	>3500 cycles at 1C, 80 % DoD	>3500 cycles at 1C, 80 % DoD
Cell Self-Discharge	<2 % per month	<2 % per month	<2 % per month
Cell Type (chemistry)	Cylindrical (LiFePo4)	Cylindrical (LiFePo4)	Cylindrical (LiFePo4)
Cells in Series/Parallel	4S/30P	4S/30P	4S/30P
Max. module configuration	1S/1P	2S/1P	2*(2s/1p)
Discharge Parameters			
Continuous Discharge Current	120 A	240 A	350 A
Max. Discharge Current	140 A	280 A	400 A
Pulse Discharge Current	180 A (1 s)	360 A (1 s)	600 A (1 s)
Recommended Volt. Disconnect	10.5 Vdc	10.5 Vdc	10.5 Vdc
BMS Discharge Cut-off Voltage	9.2 Vdc	9.2 Vdc	9.2 Vdc
Short Circuit Protection	200 µs to 600 µs	200 µs to 600 µs	200 µs to 600 µs
Charge Parameters			
Charge Method	CC-CV	CC-CV	CC-CV
Recommended Charge Voltage	14.2 Vdc to 14.4 Vdc	14.2 Vdc to 14.4 Vdc	14.2 Vdc to 14.4 Vdc
Recommended Float Voltage	13.8 Vdc	13.8 Vdc	13.8 Vdc
Recommended Charge Current	40 A	80 A	160 A
Maximum Charge Current	80 A	160 A	320 A
BMS Charge Cut-off Voltage	14.6 Vdc	14.6 Vdc	14.6 Vdc
Mechanical Parameters			
Dimensions per battery	329 mm x 180 mm x 204 mm (12.95" x 7.09" x 8.03")		
Weight	15.0 kg (33 lb)	30.0 kg (66 lb)	60.0 kg (132 lb)
Terminal Thread	2x M 8 x 1.25	2x M 8 x 1.25	2x M 8 x 1.25
Battery Housing	ABS Plastic Case	ABS Plastic Case	ABS Plastic Case
Housing Protection	IP21 With additional raincover IP54	IP21 With additional raincover IP54	IP21 With additional raincover IP54
Temperature Parameters			
Discharge Temperature	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
Charge Temperature	0°C to 60°C (32°F to 140°F)	0°C to 60°C (32°F to 140°F)	0°C to 60°C (32°F to 140°F)
Storage Temperature	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)
Compliance			
Certifications	UL 1642 For Cells	UL 1642 For Cells	UL 1642 For Cells

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Application Data

	Lithium Battery Superieur 24VDC | 140Ahr | 3696Wh	Lithium Battery Superieur 24VDC | 280Ahr | 7392Wh
Article Number	**40291250**	**40291260**
Electrical Parameters		
Nominal Voltage	24.0 Vdc	24.0 Vdc
Open Circuit Voltage	26.4 Vdc	26.4 Vdc
Typical Capacity	140 Ah	280 Ah
Minimal Capacity	135 Ah	270 Ah
Energy	3696 Wh	7392 Wh
Resistance	<5 mΩ	<5 mΩ
Efficiency	>99 %	>99 %
Cycle Life	>3500 cycles at 1C, 80 % DoD	>3500 cycles at 1C, 80 % DoD
Cell Self-Discharge	<2 % per month	<2 % per month
Cell Type (chemistry)	Cylindrical (LiFePo4)	Cylindrical (LiFePo4)
Cells in Series/Parallel	4S/30P	4S/30P
Max. module configuration	2S/1P	2*(1s/2p)
Discharge Parameters		
Continuous Discharge Current	120 A	240 A
Max. Discharge Current	140 A	280 A
Pulse Discharge Current	180 A (1 s)	360 A (1 s)
Recommended Volt. Disconnect	10.5 Vdc	21 Vdc
BMS Discharge Cut-off Voltage	9.2 Vdc	18,4 Vdc
Short Circuit Protection	200 µs to 600 µs	200 µs to 600 µs
Charge Parameters		
Charge Method	CC-CV	CC-CV
Recommended Charge Voltage	14.2 Vdc to 14.4 Vdc	28.4 Vdc to 28.8 Vdc
Recommended Float Voltage	13.8 Vdc	27.2 Vdc
Recommended Charge Current	40 A	80 A
Maximum Charge Current	80 A	160 A
BMS Charge Cut-off Voltage	14.6 Vdc	29.2 Vdc
Mechanical Parameters		
Dimensions	329 mm x 180 mm x 204 mm (12.95" x 7.09" x 8.03")	
Weight	15.0 kg (33 lb)	30.0 kg (66 lb)
Terminal Thread	2x M 8 x 1.25	2x M 8 x 1.25
Battery Housing	ABS Plastic Case	ABS Plastic Case
Housing Protection	IP21 With additional raincover IP54	IP21 With additional raincover IP54
Temperature Parameters		
Discharge Temperature	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
Charge Temperature	0°C to 60°C (32°F to 140°F)	0°C to 60°C (32°F to 140°F)
Storage Temperature	-20°C to 45°C (-4°F to 113°F)	-20°C to 45°C (-4°F to 113°F)
Compliance		
Certifications	UL 1642 For Cells	UL 1642 For Cells

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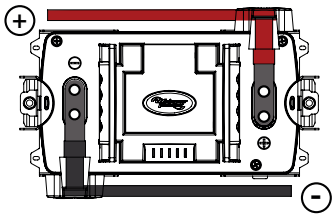
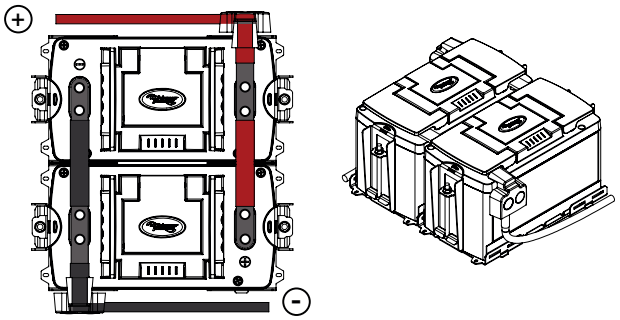
Different assembly options for 12 and 24 V

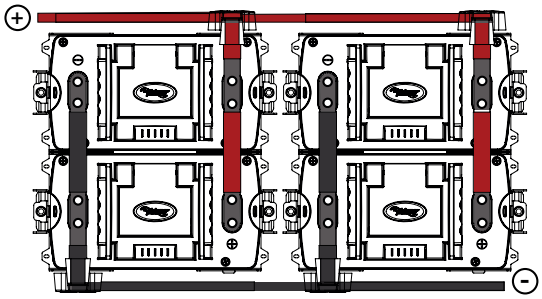
Different assembly options for 12 V:



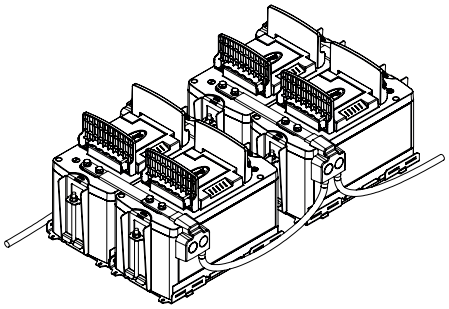
12V/140 Ah
1.8 kWh



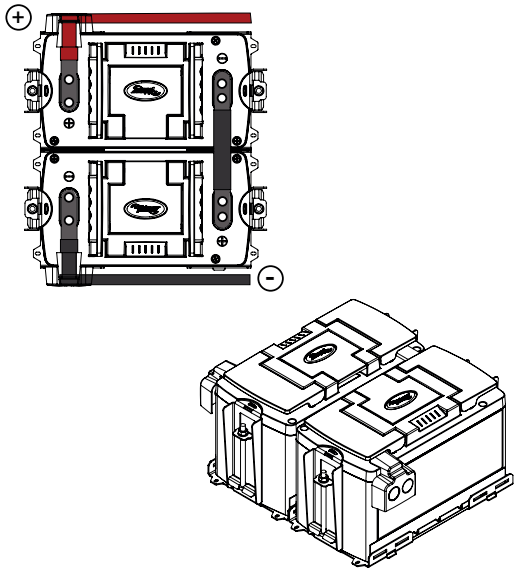
12V/280 Ah
3.7 kWh



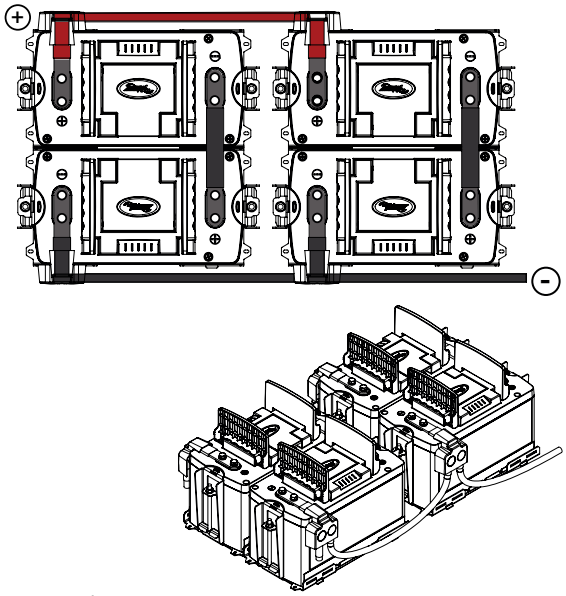
12V/560 Ah
7.4 kWh



Different assembly options for 24 V:



24V/140 Ah
3.7 kWh



24V/280 Ah
7.4 kWh

6058-2-okt-2025 Datasheet-Advanced Lithium Battery Superieur*Specifications included in this datasheet are subject to change without prior notice.

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