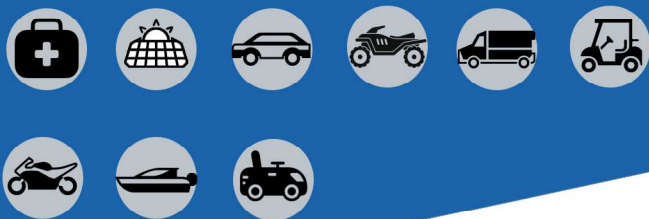


LEGACY LITHIUM



LITHIUM SERIES



LITHIUM-12100 12V 100AH

Rechargeable Lithium Battery - LiFePO4

BATTERY FEATURES

- Super safe lithium iron phosphate (LiFePO4) chemistry reducing the risk of explosion or combustion due to high impact, over-charging, or short circuit situation
- Bluetooth® communication capability for battery status
- Battery Management System (BMS) controls the parameters of the battery to provide optimum safety by protecting against over-charging and over-discharging
- BMS enhanced design balances the battery cells, optimizing battery performance
- Delivers twice the power of lead-acid batteries, even at high discharge rates, while maintaining high energy capacity
- Faster charging and lower self-discharge
- Up to 10 times more cycles than lead-acid batteries
- Compact and only 40% of the weight of comparable lead acid batteries
- Rugged impact resistant ABS case and cover flame retardant

APPROVALS

- UL 1642 cell certificate
- UN 38.3 Certified
- MSDS



MSDS

LEGACY LITHIUM 12V LIFEPO4 BATTERY SERIES

Legacy lithium 12V LiFePO4 Battery series, adopt the high discharge rate cell, including 1C discharge BMS system solution, with the intelligent battery management system that monitors current and voltages during charge and discharge. This protects the battery from over-charge and over-discharge.

The BMS embeds smart balancing algorithms that control all cell voltages in the battery, making sure they are constantly at the same voltage level, optimizing battery capacity.

BLUETOOTH Enabled Monitor the State of Charge (SoC), State of Health (SoH), current, capacity, temperature, number of cycles, and voltage levels of the battery and individual cells from Android / IOS App

APPLICATIONS

- Medical • Solar • Wind • Mobility • Data Center
- Scooter • Marine • Recreation • Utility

DIMENSIONS: inch (mm)

L : 12.99(330)
W : 6.88(175)
H : 8.5(216)



216mm

PERFORMANCE SPECIFICATIONS

Nominal Voltage	12.8V
Rated Capacity	100Ah at a constant current of 0.5C to 9.5V
Stored Energy (Wh)	1280Wh
Cycle Life (at 100% DOD)	3000 Cycles
Approximate Weight	24.3lbs (11kg)
Internal Resistance	≤ 20.0 mΩ
Max Charge Current	50A
Max Continuous/Discharge Current	100A / 200A (5S)
Charge Cut-off Voltage	14.6v
Recommended Discharge Cut-Off Voltage	10V
Series & Parallel Connection	Max 4 packs connect in Series & Parallel
Operating Temperature Range	
Charge	32°F (0°C) to 140°F (60°C)
Discharge	14°F (-10°C) to 140°F (60°C)
Recommended	59°F (15°C) to 95°F (35°C)
Self-Discharge Rate	≤ 3%/month
Long Term Storage	Long Term Storage Charge every 6 months or as soon as OCV is 12.8V (approximately 20% SOC)
Power Sonic Chargers	Contact us for information on a suitable charger
Life Expectancy (years)	5 years at one cycle per day
Short Circuit Protection	Automatically recover after removal of short
Dimensional Tolerances	max torque 15 ft/lbs
Terminal Type	m8
Cooling Way	Natural air cooling
Waterproofing Standard	IP66
Heat Function	Cell Heater Technology

BENEFITS OF LITHIUM

Lithium offers several performance advantages over Lithium Sealed Lead Acid (SLA) equivalents. This series of lithium iron phosphate batteries adopts a high rate prismatic cell solution, the capacity is independent of the discharge rate and provides ultra-high constant power throughout the discharge process. The degradation of this lithium battery at high temperature is significantly reduced compared to SLA.

At room temperature, the cycle life of lithium is ten times longer than that of SLA.

Finally, lithium battery charging follows a similar charging curve as SLA, constant current and constant voltage (CC/CV). However, lithium can be charged faster without maintenance floating charges. It is recommended to use a professional LIFEP04 charger, which is more conducive to maximize the cycle life of lifepo4 battery.

CELL PARAMETERS

Cell model	LFP/MT100Ah
Cell type	Lithium Polymer
Nominal Capacity (0.5C)	100A
Standard C/Discharge Current	0.5C / 1C 50A/100A
Max Cntinuous Discharge Current	100A

BMS TECHNICAL SPECIFICATIONS

Over-charge	
Over-charge protection voltage for each cell	3.65V
Over-charge release voltage for each cell	3.6 V
Over-charge release method	Protection releases when all cell voltages drop below the over-charge release voltage
Over-discharge	
Over-discharge protection voltage for each cell	2.4v
Over-discharge release voltage for each cell	2.8v
Over-discharge release method	Protection releases upon charging
Over current	
Discharge over current protection	250A
Over-current delay time	50-200 mS
Over current release condition	Protection releases upon removing load and charging
Battery temperature	
Over-temperature protection	65±5°C
Release temperature	50±5°C
Short circuit protection	
Function condition	External short circuit
Short circuit delay time	200 ms
Release condition	Protection releases upon removing short circuit and charging

FURTHER INFORMATION

Please refer to our website <http://Legacylithium.com> or email us at [http://Legacylithium.com](mailto:info@Legacylithium.com) for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc.

Details	Min	Typ	Max	Error	Unit
Battery Gas	3.20V lithium battery				
Battery Link	4SP				
Loop capability	No				
Input Charging Voltage		14.6		±1%	V
Input Charging Current		≤ 50			A
Output Discharging Voltage		12.8			V
Continuous Output Discharging Current		≤ 100			A
Ambient Condition	Operating Temperature	-20/-4	25	60/140	°C/°F
	Humidity (No Water-Drop)	0%		90%	RH
Storage Condition	Temperature	-20/-4		85/185	°C/°F
	Humidity (No Water-Drop)	0%		90%	RH
Protection Parameters (for Individual Cell)					
Over-Charge Voltage Protection (OVP)	3.65		±25mV		V
Over-flashing	1000		±300		mS
Over-Charge Voltage Protection Release (OVPR)	3.6		±50mV		V
Over-Discharge Voltage Protection (UVP)	2.4		±80mV		V
Over-lapping	20		±6		mS
Over-Discharge Voltage Protection Release (UVPR)	2.50—2.60		-----		V
Over-Current Discharge Protection (OCDP)	250		±5		A
Over-Current Protection Delay Time (OCPDT)	30		±5		mS
Over-Discharge Protection Release	Recovering after cutting off the load				
Over-Current Discharge Protection Release	Recovering after cutting off the load				
Short circuit current protection	Enable				
Short circuit current protection delay time	200	600	±100		uS
Short circuit protection Release	Recovering after cutting off the load				
Discharging Temperature	75/167	External	±5		°C/°F
Discharging Temperature Protection Release	70/158		±10		°C/°F
Discharge protection temperature recovery method	Automatic recovery				
charging Temperature	----		----		
charging Temperature Protection Release	----		----		
Cell balance					
Bleed StartPoint	71/159.8		±10mA		°C/°F
Bleed Current					
Balance Mode	Charging Auto Active Balance				
Idle mode	≤ 5uA				uA
Main loop electrify resistance	MAX: 7mΩ				mΩ
PCBA Size	160 (±0.5) ×30 (±0.5) ×100 (±0.5)				mm
Data Storage	Cycle quantity data storage record by Bluetooth				

LEGACY LITHIUM



LITHIUM SERIES

LITHIUM-1280

12V 80Ah
CCA1600A

Rechargeable Lithium Battery - LiFePO4

LEGACY LITHIUM STARTER 12V LiFePO4 BATTERY SERIES

Legacy lithium Starter 12V LiFePO4 Battery, adopt the high discharge rate cell solution and 1600A Cranking Amps BMS module system, Support 100A continuous Discharge Current, and Contained Auto heat module system under low. The intelligent battery management system monitors current and voltages during charge and discharge. This protects the battery from over-charge and over-discharge. The BMS embeds smart balancing algorithms that control all cell voltages in the battery, making sure they are constantly at the same voltage level, optimizing battery capacity. The Smart low temp heat Module system will make charging easier and faster for users at low temperatures.

DIMENSIONS: inch (mm)

L: 12.51(318)
W: 6.92(176)
H: 7.36(187)



GO SMARTER

Active intelligent monitoring. At The heart of every Hyper Sport Pro Lithium battery is an integrated management system that monitors and reacts to multiple voltage, current, and temperature events to maximize performance, battery life and safety.

GO SAFER

Lithium Iron Phosphate (LiFePO4) is the safest type of lithium battery and a ready to go replacement and upgrade from lead acid, AGM or gel.

GO FASTER

GO LONGER

- 4X lighter
- 4X longer life
- 4X faster charge time
- 4X the warranty

LEGACY LITHIUM STARTER

Simply connect your battery and you are ready to go.

PERFORMANCE SPECIFICATIONS

Nominal Voltage	12.8V
Watt-Hour	1024Wh
Discharge	
Continuous (1.2C)	100A
Maximum (15C, 5S)	1600A(±150A)
Charging Current	20A (Standard) - 40A (Max)
Approximate Weight	28.6 lbs. (13kg)
Initial Impedance	≤ 20milliohms
Cycle life (80% DOD at 77°F (25°C))	≥2000
Charge Retention (Shelf Life) (at 68°F /20°C)	≥95%
Operating Temperature Range	
Charge	32°F (0°C) to 113°F (45°C)
Discharge	-4°F (-20°C) to 131°F (55°C)
Storage	-32°F (0°C) to 86°F (30°C)
Recommended Charger	Please contact LEGACY
Case	230°C heat resistant case and cover UL94-V0 flammability Rugged impact ABS BOX

<http://Legacylithium.com>

LEGACY

LITHIUM

LITHIUM
SERIES



CHARGING

The battery can be used if the voltage is higher or equal to 12.8V, although we recommend fully charging the battery if the voltage is below 13.0V. Apply constant voltage charge between 14.4V and 14.8V to fully charge the battery.

The Hyper Sport Pro series requires lithium compatible chargers and testers. We do not recommend the use of lead acid chargers as many in the market are not suitable for lithium iron phosphate batteries.

APPLICATIONS

- Motorcycle
- Scooter
- ATV
- Watersport
- UTV

WARRANTY

Designed and engineered at our ISO 9001:2001 certified factories all LEGACY batteries are subject to stringent quality control through every step of the manufacturing process ensuring both consistency and reliability.

The LITHIUM STARTER series are backed by a 2-year limited warranty.

FURTHER INFORMATION

Please refer to our website <http://Legacylithium.com> for a complete range of useful tools and downloads, such as our PowerSports battery finder, application guides, material safety datasheets and much more.

LITHIUM-1280

12V 80Ah
CCA1600A

Rechargeable Lithium Battery - LIFEPO4

BMS Specifications

Voltage

Charging voltage DC	≤ 14.8V CC/CV
Single-cell balance voltage	3.5±0.025V

Current

Single-cell equalization current	35±5mA
Current consumption (self-consumption) - single cell	≤ 35μA
Maximum continuous charging current	≤ 100A
Maximum pulse discharge current	1600A±150 (5S)

Overcharge protection (single cell)

Overcharge detection voltage	3.9±0.025V
Overcharge detection delay time	0.7S-1.3S
Overcharge recovery voltage	3.80±0.005V

Over discharge protection (single cell)

Overdischarge detection voltage	2.50±0.0625V
Overdischarge detection delay time	500S-1500mS
Overdischarge recovery voltage	3.00±0.075V

temperature protection

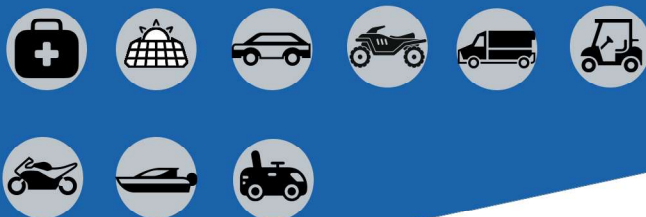
C & Discharge temperature protection	90±5°C
C & Discharge temperature recovery	65±12.5°C

temperature

Operating temperature	-40~+85°C
Storage temperature	-40~+125°C
Temperature switch	90°C

<http://Legacylithium.com>

LEGACY LITHIUM



LITHIUM-1260

12V
60Ah

Rechargeable Lithium Battery - LiFePO4

BATTERY FEATURES

- Super safe lithium iron phosphate (LiFePO4) chemistry reducing the risk of explosion or combustion due to high impact, over-charging, or short circuit situation
- Bluetooth® communication capability for battery status
- Battery Management System (BMS) controls the parameters of the battery to provide optimum safety by protecting against over-charging and over-discharging
- BMS enhanced design balances the battery cells, optimizing battery performance
- Delivers twice the power of lead-acid batteries, even at high discharge rates, while maintaining high energy capacity
- Faster charging and lower self-discharge
- Up to 10 times more cycles than lead-acid batteries
- Compact and only 40% of the weight of comparable lead acid batteries
- Rugged impact resistant ABS case and cover flame retardant

APPROVALS

- UL 1642 cell certificate
- UN 38.3 Certified
- MSDS



MSDS

LEGACY LITHIUM 12V LIFEPO4 BATTERY SERIES

Legacy lithium 12V LiFePO4 Battery series, adopt the high discharge rate cell, including 1C discharge BMS system solution, with the intelligent battery management system that monitors current and voltages during charge and discharge. This protects the battery from over-charge and over-discharge.

The BMS embeds smart balancing algorithms that control all cell voltages in the battery, making sure they are constantly at the same voltage level, optimizing battery capacity.

BLUETOOTH Enabled Monitor the State of Charge (SoC), State of Health (SoH), current, capacity, temperature, number of cycles, and voltage levels of the battery and individual cells from Android / IOS App

APPLICATIONS

- Medical • Solar • Wind • Mobility • Data Center
- Scooter • Marine • Recreation • Utility



LITHIUM SERIES

DIMENSIONS: inch (mm)

L : 9.01(229)
W : 5.43(138)
H : 8.18(208)



208mm

PERFORMANCE SPECIFICATIONS

Nominal Voltage	12.8V
Rated Capacity	60Ah at a constant current of 0.5C to 9.5V
Stored Energy (Wh)	768Wh
Cycle Life (at 100% DOD)	3000 Cycles
Approximate Weight	16.5lbs (7.5kg)
Internal Resistance	≤ 20.0 mΩ
Max Charge Current	30A
Max Continuous/Discharge Current	50A / 150A (3S)
Charge Cut-off Voltage	14.6v
Recommended Discharge Cut-Off Voltage	10V
Series & Parallel Connection	Max 4 packs connect in Series & Parallel
Operating Temperature Range	
Charge	32°F (0°C) to 140°F (60°C)
Discharge	14°F (-10°C) to 140°F (60°C)
Recommended	59°F (15°C) to 95°F (35°C)
Self-Discharge Rate	≤ 3%/month
Long Term Storage	Long Term Storage Charge every 6 months or as soon as OCV is 12.8V (approximately 20% SOC)
Power Sonic Chargers	Contact us for information on a suitable charger
Life Expectancy (years)	5 years at one cycle per day
Short Circuit Protection	Automatically recover after removal of short
Dimensional Tolerances	max torque 15 ft/lbs
Terminal Type	m6
Cooling Way	Natural air cooling
Waterproofing Standard	IP66

BENEFITS OF LITHIUM

Lithium offers several performance advantages over Lithium Sealed Lead Acid (SLA) equivalents. This series of lithium iron phosphate batteries adopts a high rate prismatic cell solution, the capacity is independent of the discharge rate and provides ultra-high constant power throughout the discharge process. The degradation of this lithium battery at high temperature is significantly reduced compared to SLA.

At room temperature, the cycle life of lithium is ten times longer than that of SLA.

Finally, lithium battery charging follows a similar charging curve as SLA, constant current and constant voltage (CC/CV). However, lithium can be charged faster without maintenance floating charges. It is recommended to use a professional LIFEP04 charger, which is more conducive to maximize the cycle life of lifepo4 battery.

CELL PARAMETERS

Cell model	LFP/MT30Ah
Cell type	Lithium Polymer
Nominal Capacity (0.5C)	30A
Standard C/Discharge Current	0.5C / 1C 30A/60A
Max Cntinuous Discharge Current	60A

BMS TECHNICAL SPECIFICATIONS

Over-charge

Over-charge protection voltage for each cell	3.65V
Over-charge release voltage for each cell	3.6 V
Over-charge release method	Protection releases when all cell voltages drop below the over-charge release voltage

Over-discharge

Over-discharge protection voltage for each cell	2.4v
Over-discharge release voltage for each cell	2.8v
Over-discharge release method	Protection releases upon charging

Over current

Discharge over current protection	120A
Over-current delay time	50-200 mS
Over current release condition	Protection releases upon removing load and charging

Battery temperature

Over-temperature protection	65±5°C
Release temperature	50±5°C

Short circuit protection

Function condition	External short circuit
Short circuit delay time	200 ms
Release condition	Protection releases upon removing short circuit and charging

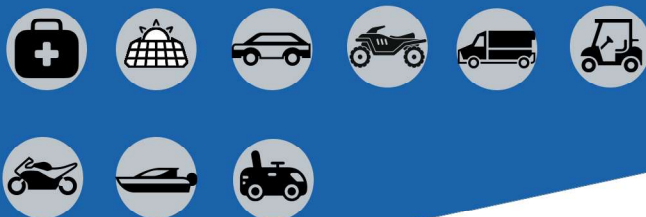
FURTHER INFORMATION

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<http://Legacylithium.com>

Details	Min	Typ	Max	Error	Unit
Battery Gas	3.20V lithium battery				
Battery Link	4S2P				
Loop capability	No				
Input Charging Voltage		14.6		±1%	V
Input Charging Current		≤30			A
Output Discharging Voltage		12.8			V
Continuous Output Discharging Current		≤50			A
Ambient Condition	Operating Temperature	-20/-4	25	60/140	°C/°F
	Humidity (No Water-Drop)	0%		90%	RH
Storage Condition	Temperature	-20/-4		85/185	°C/°F
	Humidity (No Water-Drop)	0%		90%	RH
Protection Parameters (for Individual Cell)					
Over-Charge Voltage Protection (OVP)	3.65		±25mV		V
Over-flashing	1000		±300		mS
Over-Charge Voltage Protection Release (OVPR)	3.6		±50mV		V
Over-Discharge Voltage Protection (UVP)	2.4		±80mV		V
Over-lapping	20		±6		mS
Over-Discharge Voltage Protection Release (UVPR)	2.50—2.60		-----		V
Over-Current Discharge Protection (OCDP)	150		±5		A
Over-Current Protection Delay Time (OCPDT)	30		±5		mS
Over-Discharge Protection Release	Recovering after cutting off the load				
Over-Current Discharge Protection Release	Recovering after cutting off the load				
Short circuit current protection	Enable				
Short circuit current protection delay time	200	600	±100		uS
Short circuit protection Release	Recovering after cutting off the load				
Discharging Temperature	75/167	External	±5		°C/°F
Discharging Temperature Protection Release	70/158		±10		°C/°F
Discharge protection temperature recovery method	Automatic recovery				
charging Temperature	----		----		
charging Temperature Protection Release	----		----		
Cell balance					
Bleed StartPoint	71/159.8		±10mA		°C/°F
Bleed Current					
Balance Mode	Charging Auto Active Balance				
Idle mode	≤5uA				uA
Main loop electrify resistance	MAX: 7mΩ				mΩ
PCBA Size	153 (±0.5) ×18 (±0.5) ×80 (±0.5)				mm
Data Storage	Cycle quantity data storage record by Bluetooth				

LEGACY LITHIUM



LITHIUM-1232 ^{12V} 32AH

Rechargeable Lithium Battery - LiFePO4

BATTERY FEATURES

- Super safe lithium iron phosphate (LiFePO4) chemistry reducing the risk of explosion or combustion due to high impact, over-charging, or short circuit situation
- Bluetooth® communication capability for battery status
- Battery Management System (BMS) controls the parameters of the battery to provide optimum safety by protecting against over-charging and over-discharging
- BMS enhanced design balances the battery cells, optimizing battery performance
- Delivers twice the power of lead-acid batteries, even at high discharge rates, while maintaining high energy capacity
- Faster charging and lower self-discharge
- Up to 10 times more cycles than lead-acid batteries
- Compact and only 40% of the weight of comparable lead acid batteries
- Rugged impact resistant ABS case and cover flame retardant

APPROVALS

- UL 1642 cell certificate
- UN 38.3 Certified
- MSDS



MSDS

LEGACY LITHIUM 12V LIFEPO4 BATTERY SERIES

Legacy lithium 12V LiFePO4 Battery series, adopt the high discharge rate cell, including 1C discharge BMS system solution, with the intelligent battery management system that monitors current and voltages during charge and discharge. This protects the battery from over-charge and over-discharge.

The BMS embeds smart balancing algorithms that control all cell voltages in the battery, making sure they are constantly at the same voltage level, optimizing battery capacity.

BLUETOOTH Enabled Monitor the State of Charge (SoC), State of Health (SoH), current, capacity, temperature, number of cycles, and voltage levels of the battery and individual cells from Android / IOS App

APPLICATIONS

- Medical • Solar • Wind • Mobility • Data Center
- Scooter • Marine • Recreation • Utility



LITHIUM
SERIES

DIMENSIONS: inch (mm)

L : 7.12(181)

W : 3.03(77)

H : 6.61(168)



PERFORMANCE SPECIFICATIONS

Nominal Voltage	12.8V
Rated Capacity	32Ah at a constant current of 0.5C to 9.5V
Stored Energy (Wh)	409.6Wh
Cycle Life (at 100% DOD)	3000 Cycles
Approximate Weight	7.7lbs (3.5kg)
Internal Resistance	≤ 20.0 mΩ
Max Charge Current	30A
Max Continuous/Discharge Current	30A / 80A (5S)
Charge Cut-off Voltage	14.6v
Recommended Discharge Cut-Off Voltage	10V
Series & Parallel Connection	Max 4 packs connect in Series & Parallel
Operating Temperature Range	
Charge	32°F (0°C) to 140°F (60°C)
Discharge	14°F (-10°C) to 140°F (60°C)
Recommended	59°F (15°C) to 95°F (35°C)
Self-Discharge Rate	≤ 3%/month
Long Term Storage	Long Term Storage Charge every 6 months or as soon as OCV is 12.8V (approximately 20% SOC)
Power Sonic Chargers	Contact us for information on a suitable charger
Life Expectancy (years)	5 years at one cycle per day
Short Circuit Protection	Automatically recover after removal of short
Dimensional Tolerances	max torque 15 ft/lbs
Terminal Type	m5
Cooling Way	Natural air cooling
Waterproofing Standard	IP66

BENEFITS OF LITHIUM

Lithium offers several performance advantages over Lithium Sealed Lead Acid (SLA) equivalents. This series of lithium iron phosphate batteries adopts a high rate prismatic cell solution, the capacity is independent of the discharge rate and provides ultra-high constant power throughout the discharge process. The degradation of this lithium battery at high temperature is significantly reduced compared to SLA.

At room temperature, the cycle life of lithium is ten times longer than that of SLA.

Finally, lithium battery charging follows a similar charging curve as SLA, constant current and constant voltage (CC/CV). However, lithium can be charged faster without maintenance floating charges. It is recommended to use a professional LIFEP04 charger, which is more conducive to maximize the cycle life of lifepo4 battery.

CELL PARAMETERS

Cell model	LFP/MT16Ah
Cell type	Lithium Polymer
Nominal Capacity (0.5C)	16Ah
Standard C/Discharge Current	0.5C / 1C 15A/30A
Max Cntinuous Discharge Current	30A

BMS TECHNICAL SPECIFICATIONS

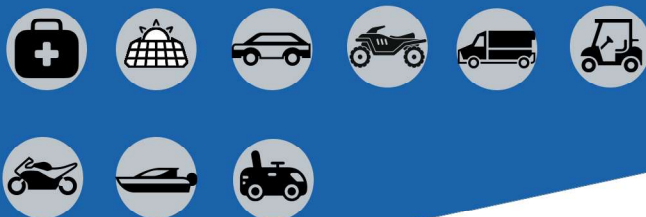
Over-charge	
Over-charge protection voltage for each cell	3.65V
Over-charge release voltage for each cell	3.6 V
Over-charge release method	Protection releases when all cell voltages drop below the over-charge release voltage
Over-discharge	
Over-discharge protection voltage for each cell	2.4v
Over-discharge release voltage for each cell	2.8v
Over-discharge release method	Protection releases upon charging
Over current	
Discharge over current protection	120A
Over-current delay time	50-200 mS
Over current release condition	Protection releases upon removing load and charging
Battery temperature	
Over-temperature protection	65±5°C
Release temperature	50±5°C
Short circuit protection	
Function condition	External short circuit
Short circuit delay time	200 ms
Release condition	Protection releases upon removing short circuit and charging

FURTHER INFORMATION

Please refer to our website <http://Legacylithium.com> or email us at <http://Legacylithium.com> for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc.

Details	Min	Typ	Max	Error	Unit
Battery Gas	3.20V lithium battery				
Battery Link	4S2P				
Loop capability	No				
Input Charging Voltage		14.6		±1%	V
Input Charging Current		≤30			A
Output Discharging Voltage		12.8			V
Continuous Output Discharging Current		≤30			A
Ambient Condition	Operating Temperature	-20/-4	25	60/140	°C/°F
	Humidity (No Water-Drop)	0%		90%	RH
Storage Condition	Temperature	-20/-4		85/185	°C/°F
	Humidity (No Water-Drop)	0%		90%	RH
Protection Parameters (for Individual Cell)					
Over-Charge Voltage Protection (OVP)	3.65		±25mV		V
Over-flashing	1000		±300		mS
Over-Charge Voltage Protection Release (OVPR)	3.6		±50mV		V
Over-Discharge Voltage Protection (UVP)	2.4		±80mV		V
Over-lapping	20		±6		mS
Over-Discharge Voltage Protection Release (UVPR)	2.50—2.60		-----		V
Over-Current Discharge Protection (OCDP)	100		±5		A
Over-Current Protection Delay Time (OCPDT)	30		±5		mS
Over-Discharge Protection Release	Recovering after cutting off the load				
Over-Current Discharge Protection Release	Recovering after cutting off the load				
Short circuit current protection	Enable				
Short circuit current protection delay time	200	600	±100		uS
Short circuit protection Release	Recovering after cutting off the load				
Discharging Temperature	75/167	External	±5		°C/°F
Discharging Temperature Protection Release	70/158		±10		°C/°F
Discharge protection temperature recovery method	Automatic recovery				
charging Temperature	----		----		
charging Temperature Protection Release	----		----		
Cell balance					
Bleed StartPoint	71/159.8		±10mA		°C/°F
Bleed Current					
Balance Mode	Charging Auto Active Balance				
Idle mode	≤5uA				uA
Main loop electrify resistance	MAX: 7mΩ				mΩ
PCBA Size	153 (±0.5) ×18 (±0.5) ×80 (±0.5)				mm
Data Storage	Cycle quantity data storage record by Bluetooth				

LEGACY LITHIUM



LITHIUM SERIES



LITHIUM-1212

12V
12AH

Rechargeable Lithium Battery - LiFePO4

BATTERY FEATURES

- Super safe lithium iron phosphate (LiFePO4) chemistry reducing the risk of explosion or combustion due to high impact, over-charging, or short circuit situation
- Bluetooth® communication capability for battery status
- Battery Management System (BMS) controls the parameters of the battery to provide optimum safety by protecting against over-charging and over-discharging
- BMS enhanced design balances the battery cells, optimizing battery performance
- Delivers twice the power of lead-acid batteries, even at high discharge rates, while maintaining high energy capacity
- Faster charging and lower self-discharge
- Up to 10 times more cycles than lead-acid batteries
- Compact and only 40% of the weight of comparable lead acid batteries
- Rugged impact resistant ABS case and cover flame retardant

APPROVALS

- UL 1642 cell certificate
- UN 38.3 Certified
- MSDS



MSDS

LEGACY LITHIUM 12V LIFEPO4 BATTERY SERIES

Legacy lithium 12V LIFEPO4 Battery series, adopt the high discharge rate cell, including 1C discharge BMS system solution, with the intelligent battery management system that monitors current and voltages during charge and discharge. This protects the battery from over-charge and over-discharge.

The BMS embeds smart balancing algorithms that control all cell voltages in the battery, making sure they are constantly at the same voltage level, optimizing battery capacity.

BLUETOOTH Enabled Monitor the State of Charge (SoC), State of Health (SoH), current, capacity, temperature, number of cycles, and voltage levels of the battery and individual cells from Andriod / IOS App

APPLICATIONS

- Medical • Solar • Wind • Mobility • Data Center
- Scooter • Marine • Recreation • Utility

DIMENSIONS: inch (mm)

L : 5.9(150)
W : 2.55(65)
H : 3.74(95)



PERFORMANCE SPECIFICATIONS

Nominal Voltage	12.8V
Rated Capacity	12Ah at a constant current of 0.5C to 9.5V
Stored Energy (Wh)	153.6Wh
Cycle Life (at 100% DOD)	3000 Cycles
Approximate Weight	3.3lbs (1.5kg)
Internal Resistance	≤ 20.0 mΩ
Max Charge Current	12A
Max Continuous/Discharge Current	20A / 50A (5S)
Charge Cut-off Voltage	14.6v
Recommended Discharge Cut-Off Voltage	10V
Series & Parallel Connection	Max 4 packs connect in Series & Parallel
Operating Temperature Range	
Charge	32°F (0°C) to 140°F (60°C)
Discharge	14°F (-10°C) to 140°F (60°C)
Recommended	59°F (15°C) to 95°F (35°C)
Self-Discharge Rate	≤ 3%/month
Long Term Storage	Long Term Storage Charge every 6 months or as soon as OCV is 12.8V (approximately 20% SOC)
Power Sonic Chargers	Contact us for information on a suitable charger
Life Expectancy (years)	5 years at one cycle per day
Short Circuit Protection	Automatically recover after removal of short
Dimensional Tolerances	max torque 15 ft/lbs
Terminal Type	F2
Cooling Way	Natural air cooling
Waterproofing Standard	IP66

BENEFITS OF LITHIUM

Lithium offers several performance advantages over Lithium Sealed Lead Acid (SLA) equivalents. This series of lithium iron phosphate batteries adopts a high rate prismatic cell solution, the capacity is independent of the discharge rate and provides ultra-high constant power throughout the discharge process. The degradation of this lithium battery at high temperature is significantly reduced compared to SLA.

At room temperature, the cycle life of lithium is ten times longer than that of SLA.

Finally, lithium battery charging follows a similar charging curve as SLA, constant current and constant voltage (CC/CV). However, lithium can be charged faster without maintenance floating charges. It is recommended to use a professional LIFEP04 charger, which is more conducive to maximize the cycle life of lifepo4 battery.

CELL PARAMETERS

Cell model	LFP/MT6000mAh
Cell type	cylindrical 32700
Nominal Capacity (0.5C)	6000mAh
Standard C/Discharge Current	0.5C / 1C 6A/12A
Max Cntinuous Discharge Current	20A

BMS TECHNICAL SPECIFICATIONS

Over-charge

Over-charge protection voltage for each cell	3.65V
Over-charge release voltage for each cell	3.6 V
Over-charge release method	Protection releases when all cell voltages drop below the over-charge release voltage

Over-discharge

Over-discharge protection voltage for each cell	2.4v
Over-discharge release voltage for each cell	2.8v
Over-discharge release method	Protection releases upon charging

Over current

Discharge over current protection	60A
Over-current delay time	50-200 mS
Over current release condition	Protection releases upon removing load and charging

Battery temperature

Over-temperature protection	65±5°C
Release temperature	50±5°C

Short circuit protection

Function condition	External short circuit
Short circuit delay time	200 ms
Release condition	Protection releases upon removing short circuit and charging

FURTHER INFORMATION

Please refer to our website <http://Legacylithium.com> or email us at

<http://Legacylithium.com> for a complete range of useful downloads, such as product catalogs, material safety data sheets (MSDS), ISO certification, etc.

<http://Legacylithium.com>

Details	Min	Typ	Max	Error	Unit
Battery Gas	3.20V lithium battery				
Battery Link	4S2P				
Loop capability	No				
Input Charging Voltage		14.6		±1%	V
Input Charging Current		≤ 12			A
Output Discharging Voltage		12.8			V
Continuous Output Discharging Current		≤ 20			A
Ambient Condition	Operating Temperature	-20/-4	25	60/140	°C/°F
	Humidity (No Water-Drop)	0%		90%	RH
Storage Condition	Temperature	-20/-4		85/185	°C/°F
	Humidity (No Water-Drop)	0%		90%	RH
Protection Parameters (for Individual Cell)					
Over-Charge Voltage Protection (OVP)	3.65		±25mV		V
Over-flashing	1000		±300		mS
Over-Charge Voltage Protection Release (OVPR)	3.6		±50mV		V
Over-Discharge Voltage Protection (UVP)	2.4		±80mV		V
Over-lapping	20		±6		mS
Over-Discharge Voltage Protection Release (UVPR)	2.50—2.60		-----		V
Over-Current Discharge Protection (OCDP)	60		±5		A
Over-Current Protection Delay Time (OCPDT)	30		±5		mS
Over-Discharge Protection Release	Recovering after cutting off the load				
Over-Current Discharge Protection Release	Recovering after cutting off the load				
Short circuit current protection	Enable				
Short circuit current protection delay time	200	600	±100		uS
Short circuit protection Release	Recovering after cutting off the load				
Discharging Temperature	75/167	External	±5		°C/°F
Discharging Temperature Protection Release	70/158		±10		°C/°F
Discharge protection temperature recovery method	Automatic recovery				
charging Temperature	----		----		
charging Temperature Protection Release	----		----		
Cell balance					
Bleed StartPoint	71/159.8		±10mA		°C/°F
Bleed Current					
Balance Mode	Charging Auto Active Balance				
Idle mode	≤ 5uA				uA
Main loop electrify resistance	MAX: 7mΩ				mΩ
PCBA Size	140 (±0.5) ×10 (±0.5) ×50 (±0.5)				mm
Data Storage	Cycle quantity data storage record by Bluetooth				