51.2 V 50 Ah LiFePO4

Battery

Compact golf-cart LiFePO4 battery with 100 A continuous discharge, Bluetooth monitoring and IP67 protection

RELEASED TECHNICAL SPECIFICATION

DOCUMENT NUMBER	REVISION	ISSUE DATE	STATUS
AMP-SPEC-BAT-008	**A**	**28 September 2026**	Released

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1 Product Overview

The Amped 51.2 V 50 Ah LiFePO4 Battery is a compact golf-cart battery based on a 16S1P prismatic-cell pack. The supplied specification lists 2.56 kWh nominal energy, a 43.2 V to 58.4 V working range, 100 A maximum continuous discharge, Bluetooth communication and IP67 protection.

51.2 V NOMINAL VOLTAGE	**50 Ah NOMINAL CAPACITY**	**2.560 kWh STORED ENERGY**
100 A CONTINUOUS DISCHARGE	**120 min RESERVE @ 25 A**	**IP67 INGRESS PROTECTION**

KEY FEATURES
- LiFePO4 prismatic-cell construction
- 16S1P cell configuration
- Integrated BMS protection functions
- 100 A maximum continuous discharge
- 150 A peak discharge
- Up to 50 A maximum charging current
- Bluetooth communication
- IP67 rated enclosure
- Parallel connection supported up to 8 packs

TYPICAL APPLICATIONS
- Golf carts
- Utility carts using compatible 51.2 V LiFePO4 systems
- 48 V-class traction systems designed for a 16S LiFePO4 battery
- Parallel battery installations where approved by the system designer

APPLICATION NOTE
System compatibility, cable sizing, external fusing, isolation devices and charger settings must be confirmed by a competent installer. Series connection is not supported. Parallel connection is permitted up to eight packs according to the supplied specification.

Product identification

Product model: Amped 51.2/50Lfp. Technical values in this released specification are based on the supplied 51.2 V 50 Ah LiFePO4 specification and the supplied Amped product photograph. The product label uses the 48 V class designation while the nominal pack voltage is 51.2 V. Pack weight, charging-temperature range, storage limits and detailed Bluetooth protocol/app information were not specified in the supplied source data and are therefore not stated in this specification.

2 Electrical Specification

Parameter	Specification
Cell chemistry	Lithium iron phosphate (LiFePO4), prismatic cells
Cell configuration	16S1P
Nominal voltage	51.2 V
Working voltage range	43.2 V to 58.4 V
Nominal capacity	50 Ah
Nominal energy	2,560 Wh (2.56 kWh)
Recommended depth of discharge	80% DOD
Reserve capacity @ 25 A	120 minutes
Recommended charge current	8 A
Maximum charge current	50 A
Charging time @ 8 A	Approx. 375 minutes
Maximum continuous discharge current	100 A
Peak discharge current	150 A

2.1 Battery Management and Protection

Parameter	Specification
Protection functions	Pack over-voltage, pack under-voltage, cell balancing, cell over-temperature, BMS over-temperature, short-circuit / over-current
Bluetooth	Yes
Series connection	No
Parallel connection	Yes, up to 8 packs
Power terminal	M8 female

CHARGING REQUIREMENT
Use a LiFePO4-compatible charger. The supplied specification lists 8 A as the recommended charging current and 50 A as the maximum charging current, with an approximate charging time of 375 minutes at 8 A. Maximum working voltage is 58.4 V. Final charger settings must be confirmed before commissioning.

3 Mechanical and Environmental Specification

PRODUCT VIEW



3.1 Environmental Limits

Parameter	Specification
Dimensions (L × W × H)	264 × 180 × 294 mm

Parameter	Specification
Pack weight	Not specified in supplied data
Enclosure	Black plastic case
Ingress protection	IP67
Terminal type	M8 female
Discharge temperature	-4 °F to 131 °F (-20 °C to 55 °C)
Charging temperature	Not specified in supplied data
Recommended storage temperature	Not specified in supplied data
Storage humidity	Not specified in supplied data

INSPECTION REQUIREMENT
Before installation, confirm that the enclosure, terminals, connectors and identification label are free from visible damage, contamination, swelling, deformation or corrosion. Do not use a battery damaged during transport or handling.

4 Safety, Installation and Storage

WARNING
Lithium batteries can deliver very high fault current. Incorrect installation, charging, short-circuiting, physical damage or operation outside the stated limits may cause fire, equipment damage, serious injury or death.

ESSENTIAL SAFETY PRECAUTIONS
- **Never short-circuit the battery terminals.**
- **Confirm correct polarity before connection; reverse charging is prohibited.**
- **Do not pierce, puncture, crush, distort or modify the battery pack.**
- **Do not expose the battery to open flame, excessive heat or temperatures outside the stated limits.**
- **Do not use a battery that is damaged, deformed, leaking, unusually hot or emitting an abnormal odour.**
- **Keep damaged batteries isolated from heat and ignition sources and contact Amped for guidance.**

INSTALLATION AND USE
- **Installation must be completed by a competent person using correctly rated cables, terminals, fuses and isolation devices.**
- **Use only compatible LiFePO4 charging equipment and settings.**
- **Maximum continuous discharge current is 100 A.**
- **Peak discharge is limited to 150 A.**
- **Series connection is not supported.**
- **Parallel connection is limited to a maximum of eight packs.**
- **Protect the enclosure and terminals from impact, abrasion and uncontrolled moisture.**

4.1 Storage and Handling

Topic	Requirement
State of charge	Storage SOC was not specified in the supplied source data. Contact Amped for current storage guidance for this model.
Temperature	Storage temperature was not specified in the supplied source data. Contact Amped for current storage guidance for this model.
Humidity	Storage humidity was not specified in the supplied source data. Contact Amped for current storage guidance for this model.
Maintenance	Long-term storage maintenance interval was not specified in the supplied source data. Contact Amped for current storage guidance for this model.
Terminals	Protect terminals from short circuit and contamination during handling and transport.
Abnormal condition	Quarantine damaged, swollen, overheated or leaking batteries and contact Amped for guidance.

COMMUNICATION NOTE
Bluetooth communication is listed as available in the supplied specification. App name, Bluetooth protocol, user permissions and compatibility details were not included in the supplied source data. Contact Amped for current communication and app compatibility information for this model.

5 Warranty, Compliance and Document Control

WARRANTY

COMPLIANCE AND TRANSPORT DOCUMENTATION

Warranty period: Five years from the delivery date. Warranty eligibility remains subject to correct installation, charging and operation within this specification.

- Damage caused by misuse, incorrect charging, short circuit, physical damage or operation outside the specified limits may invalidate warranty coverage.
- The current specification may be revised as the product is improved or upgraded.
- Amped is not responsible for damage arising from use contrary to this specification or applicable installation instructions.

Compliance, transport and safety documentation is issued separately where applicable. Contact Amped for the current approved documents for this model.

5.1 Ordering and Identification

Parameter	Specification
Product description	Amped 51.2 V 50 Ah LiFePO4 Battery
Product / model code	Amped 51.2/50Lfp
Document number	AMP-SPEC-BAT-008
Document revision	A
Power terminals	M8 female terminals
Communication interface	Bluetooth
Recommended charger	LiFePO4-compatible charger; 8 A recommended charge current; 50 A maximum charge current; 58.4 V maximum working voltage

5.2 Revision History

Rev	Date	Description	Approved by
A	28 Sep 2026	Initial release based on supplied 51.2 V 50 Ah LiFePO4 production specification and Amped product imagery.	Amped General Trading FZ-LLC

This document is released for production and customer issue. System compatibility, charger settings, parallel configuration, cable sizing, protection devices and product identification must match the approved order and installation requirements.

TECHNICAL SUPPORT
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