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ACES ENERGY SP

The ace in powerful and compact energy



User Manual

Lightweight, powerful. Ready for your adventures

MovePower® The ultimate LiFePO4 Mover battery from ACES Energy – for caravans and trailers.

1 Features

Maximum Power, Minimal Weight

Experience full traction without additional ballast. Our LiFePO4 mover battery weighs up to 80% less than a comparable lead-acid battery while delivering the high peak current required by your mover, even on inclines or wet grass. The constant voltage output ensures consistent performance until the battery is fully depleted.

Easy Installation – Fast and Hassle-Free

With its built-in charger, external on/off switch, and included terminal set and mounting plate, this battery is designed for quick and secure installation. The intelligent internal charger allows for continuous connection without risk of overcharging. UK or EU plug is included.

Advanced BMS for Safety and Reliability

The integrated Battery Management System (BMS) continuously monitors and balances each cell. This guarantees maximum safety, optimal performance, and extended cycle life. Each battery undergoes individual testing for capacity, cell balance, and safety prior to shipment.

Always Informed with Bluetooth Connectivity

Monitor you battery in real time via the ACES Energy App. Instantly check voltage, capacity and temperature to have full insight in the battery status and remaining power at any moment.





2 Included in the box

- 1 × MVP27 Mover Battery Unit
- 1 × Mounting Bracket Assembly
- 1 × Power Switch with 2.0 m Connection Cable
- 1 × AC Power Cord (for integrated battery charger), 1.2 m length with EU plug
- 1 × Set of (DIN-compliant) Battery Terminals
- 2 × M8 Terminal Screws (for pole connection)
- 1 x User Manual

3 Specifications

ELECTRICAL	
Voltage Category	12V
Nominal Voltage	12.8V
Capacity @ 0.2C	Min. 26 Ah, nominal 27 Ah
Nominal Energy @ 0.2C	346 Wh
Operational Voltage range	10-14.6V
Capacity vs. Ambient Temperature @0.2C	See figure 3
Self-Discharge rate	<3%/month; <15%/year
Internal Fuse	No
Cycle Life at 80% DOD and 1C (See figure 3)	2500
Parallel Connection	Up to 4 batteries
Series Connection	Not allowed
Communication Interface	Bluetooth
DISCHARGE	
Maximum Continuous Current down to 20% SOC	150 A (1920 W)
Maximum Surge/Peak Current (for 5 seconds)	200 A (2560 W)
Max. Discharge Current Protection (after 30 seconds)	180 A (2304 W)
Over discharge Protection level	10 V
Recommended Discharge-End Voltage	11.2 V
Fast Short Circuit Protection	Yes
CHARGE	
Maximum Charge Current (10-90%)	15 A
Recommended max. Charge Current	12 A
Maximum Charge Voltage (to 100%)	14.6 V
Float Voltage	13.6-13.8V
Charging Characteristic	CC/CV
Recommended ACES Charger	Internal charger: 14.4 V, 3 A
MECHANICAL	
Dimensions (L x W x H); see drawing	229 x 186 x 126 mm
Weight	4.1 kg (including mounting frame)
Cell Type	Prismatic
Terminal size, torque, cable cross section	M8 ; 8-12 nm; recommended cable cross section ≥25mm2 DIN battery poles
ENVIRONMENTAL	
Discharge Operation Temperature and %RH	-20°C – 60°C; 5% – 85% RH (see figure 1)
Charge Operation Temperature and %RH	0°C – 50°C; 5% – 85% RH (see figure 2)
Storage Temperature	Up to 2 months -10°C – 40°C; Up to 6 months 0°C – 30°C
Storage Recommendation	5°C – 30°C; 5% – 75% RH
Operation Altitude	< 3000m
Protection IP Class	IP65
EAN Number	4738476960295

Note 1: *All performances are at 25°C temperature unless otherwise stated*

4 Safety Instructions

To ensure safe operation, the batteries must only be opened or repaired by ACES or by ACES-certified companies. If opened or repaired by unauthorized personnel, the warranty becomes void and ACES assumes no further liability for the battery's safety.

If the battery casing becomes damaged, for example due to an accident, contact ACES immediately. For transportation, always use the original packaging or packaging compliant with international UN regulations for dangerous goods, Class 9.

The battery must not be used in environments with high electrostatic or electromagnetic fields, nor near heat sources such as heaters, open flames, or extremely hot areas. Always operate the battery within the temperature limits specified in Figures 1 and 2 of the manual.

The battery must not be covered and be put in a well-ventilated are to provide cooling during heavy use.

Do not continue to use the battery if its available capacity drops below 70%, as this indicates end-of-life and the unit must be properly disposed of.

The battery is IP65-rated, meaning it is splash-proof but not suitable for submerged operation.

Terminal connections must be properly torqued and/or fastened. Loose connections may cause overheating of cables and terminals, resulting in a significant fire risk. Ensure the cable cross-section is appropriate for the maximum continuous current, and use suitable cable boots for insulation.

Safety cannot be guaranteed if the battery is used outside the stated specifications. In addition, series connection is not permitted, as it may cause permanent damage or malfunction.

5 Usage Instructions

Before operating the battery, carefully read the user manual and technical specifications. Always charge the battery after each use. Leaving a nearly discharged battery unused for a long period can cause capacity loss and deep discharge, which may permanently damage the cells and is not covered by warranty.

It is recommended not to discharge the battery below 20% SOC (State of Charge) or below the specified voltage in the specification table. An undervoltage protection level should be set within the connected device, if possible.

For electrical connections, use M8 screws and cable lugs with 8 mm holes, tightened to a torque of approximately 8–10 Nm. Otherwise, the included DIN battery terminals can be used. Please follow the installation instructions for further details.

Charging instructions:
The included smart charger **does not always charge the battery to 100%**, to optimize battery health and lifetime. It can however still provide a full charge by turning on the battery using the included switch. The first operating mode, indicated by the green LED, is sufficient for this process and ensures automatic deactivation.

Warning: The battery will turn on when the charger is plugged in.

Charge the battery before first use. Then, regularly charge the battery to 100% to maintain accurate SOC readings and prevent cell imbalance.

If the battery will not be used for more than one month, charge it to 50–100% SOC and store it at an ambient temperature between 5 °C and 30 °C. Disconnect or switch off the positive terminal to prevent deep discharge. During extended storage, check the SOC via the app at least every three months.

6 Switch Operation

The built-in switch controls the battery's discharge – it simply turns the battery ON or OFF.
When the battery is not in use for an extended period, it must be **powered off completely**. This prevents unnecessary discharge and helps to extend the battery's service life.

Battery state	How to activate	Colour indication
Turn **ON** for 12 hour	Press & hold the button **1** second	
Turn **ON** without time limit	Press & hold the button **3** seconds	
Turn **OFF**	Press the button (when the battery is on)	

7 Charge and discharge characteristics

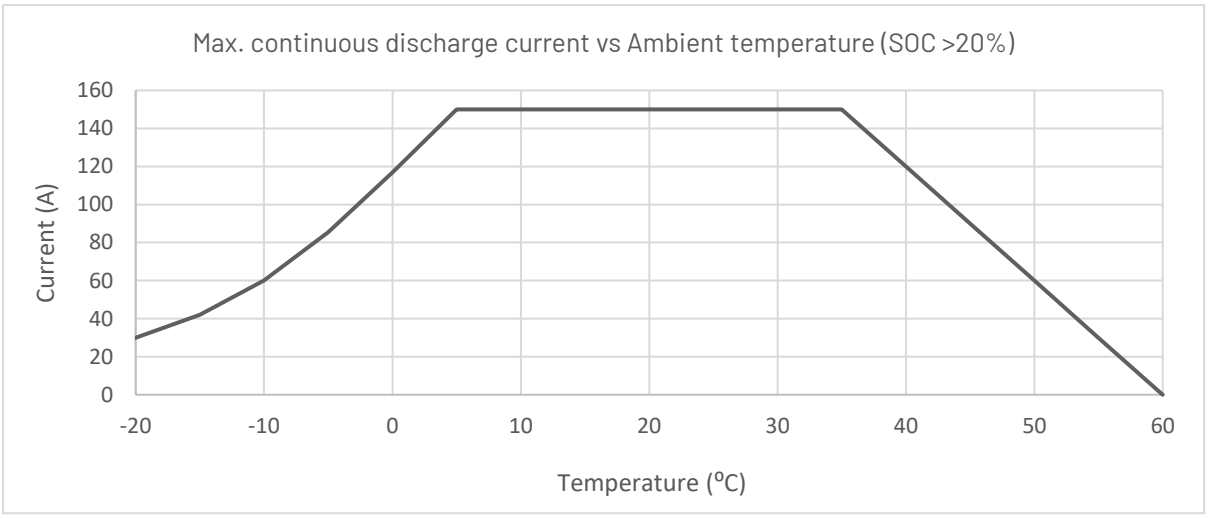


Fig. 1

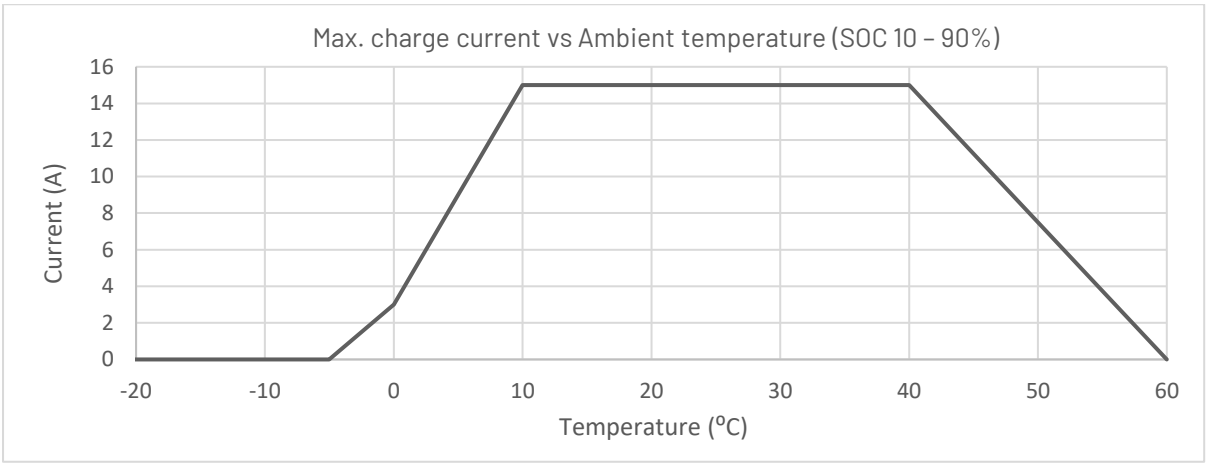


Fig. 2

8 Certifications

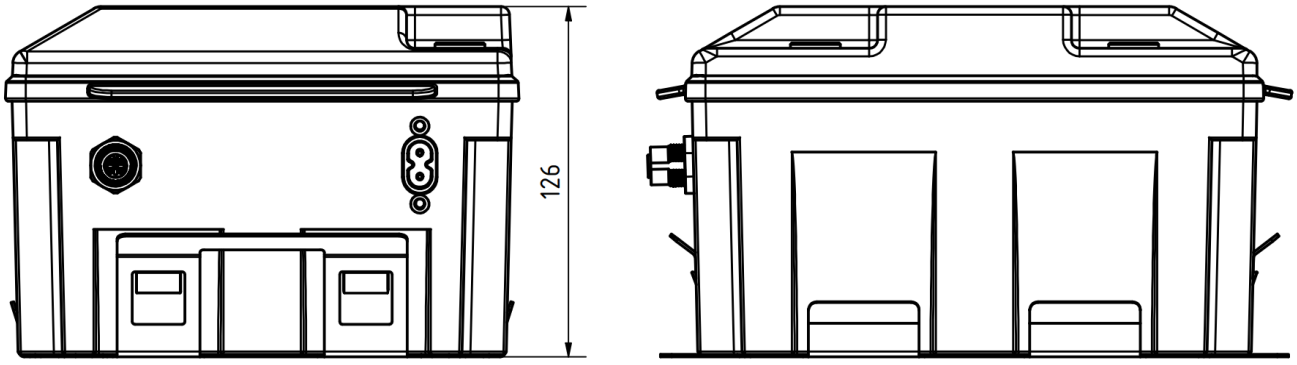
Certification item	Applicable for
CE	Battery pack
UN38.3, MSDS	Cell and Pack
IEC62619, UL1642	Cell
ROHS	Cell

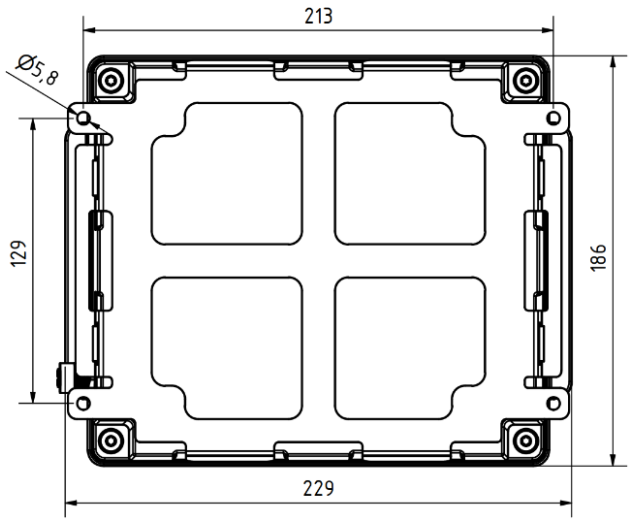
9 Installation instruction

Installation may only be performed by qualified people or people with prior experience in working with batteries.

The battery must always be installed on a solid, level surface. Wall-mounted or ceiling-mounted installation is not permitted. The battery should be securely fixed to the floor using appropriate mounting hardware to prevent movement or vibration during operation. Improper installation may result in damage or reduced performance.

The battery may not be completely covered. Keep at least 5cm free round the battery. The surrounding area must be well ventilated.





ACES

Special Products
Energy Solutions

Thank you for your interest!

Stay powered up and enjoy worry-free travels with ACES Energy.

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