



## Description

The AE10.5K is a scalable energy storage system with an energy capacity of 10.5kWh (205 Ampere-hour (Ah), 51.2 Volt (V) DC unit). The Lithium Ferro Phosphate battery ( $\text{LiFePO}_4$ ) is designed to be scalable in cabinets of 6 modules, stacking to 63kW.

The  $\text{LiFePO}_4$  chemistry is stable for increased safety and a longer cycle life (6,000 cycles) than traditional Lithium-Ion. The AE10.5K delivers more energy at a low cost and is the foundation of Amerlight Energy's scalable energy storage systems.

## Certification

Module UL1642 / Stationary Storage Rack Mount Unit UL1973

## Specifications

Model No.:	AE10.5K
Power Rating:	10,496W / 10.5kW
Nominal Voltage:	51.2V DC (16 Cells @ 3.2V each)
Typical Capacity:	205 Amp hours (Ah)
Energy Capacity:	10.5kWh
Battery Chemistry:	LifePO4
Standard Charge and Discharge Specs	Standard Charging or Discharge Current: 40A Max Continuous Charge or Discharge Current: 100A Minimum Charge or Discharge Voltage Cut-off: 40V
Charging Specs:	Maximum Charging Voltage: 58.4V
Discharge Specs:	Max Pulse Discharge Current: 3500A (3S)
Cycle Life:	≥ 6000 Cycles at 70% Depth of Discharge (DOD) @ 73°F - 77°F Optional 15,000 Cycles available in larger form factor for an additional charge
Recommended Temperatures:	Storage Temperature: -4°F - 95°F Charge Temperature: 32°F - 140°F Discharge Operating Temperature: -4°F - 140°F (Optional Heating Packs for Low Temperatures - See next page for more info)
IP Rating:	IP30
Dimensions:	L19" x W20.47" x H10.44"
Weight:	176.37 lbs each
Relative Humidity:	5 - 95% Relative Humidity (Non-condensing)
Control System:	Integrated Battery Management System (BMS) State of Charge (SOC) LED Display (6 Green LEDs)
Communication:	RS232, RS485, and CAN



Altitude: ≤ 14,500ft (4420 m)  
Warranty: 3 Year Warranty

## Features

- Capacity of 10.5kWh at 51.2 Volts DC and 205 Amp Hours
- Optional heating packs for low temperatures (see below)
- Power select appliances during an outage
- Power tools, lighting, and RVs off-grid
- Recharge from the Grid, Solar, or Wind
- Integrated Battery Management System
- Steel construction with Stainless Steel
- 2 rack mount cabinet options capable of fitting up to 4 or 6 modules
- Safety breakers and safety guard connectors for output power terminals
- Battery Charge Level, On/Off and Running Operation LED Indicator
- Overcharge, high voltage alarm, high temperature alarm, and over current protection
- Automatic capacity preservation
- Short circuit protection
- MicroGrid communication ports
- Default value for Depth of Discharge is 80%

## Extreme Weather Functionality

### Cold Temperature Protection

- To prevent damage at low temperatures, the BMS prevents charging at 32°F and discharging at temperatures below -22°F
- Battery may still be used at low temperatures as needed with a capacity up to 154Ah at temperatures below -4°F
- Rated for elevations up to 14,500ft

## AE ThermaGuard

### Optional Proprietary Heating Solution

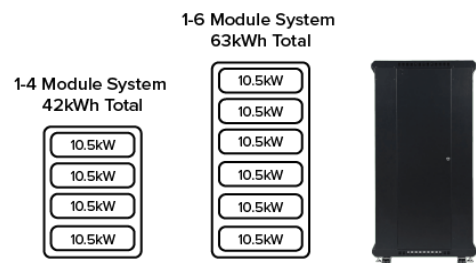
- Ensures full operation and safe use of battery systems in extreme cold weather conditions.
- When a battery's internal thermostat reads 32°F or below, the BMS carefully warms the battery with an internal heating film. This allows for safe usage of our products when other battery systems would risk damage or failure

## Scalable Mounting Options

The AE10.5K is designed to be scalable in the following options:

- Wall mounted in configurations of ≤2 (10.5kWh - 21kWh)
- Rack mounted with our available cabinets of ≤4 (10.5kWh - 42kWh) or ≤6 (10.5kWh - 63kWh).

## Stackable Cabinets Available



Designed in the USA 