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Abstract

The LG Energy Solution EM048128P6BA battery is an electrochemical energy storage module based on Lithium-ion NMC (Nickel Manganese Cobalt) technology, specifically developed for Energy Storage System (ESS) applications in commercial, industrial, and utility-scale environments. The module is designed to deliver high operational reliability, excellent energy density, and outstanding performance throughout the system's lifecycle, supporting renewable energy integration, energy optimization, and power continuity requirements.

Thanks to its modular architecture, the EM048128P6BA serves as the fundamental building block of LG Energy Solution's M48128P6B energy storage systems, enabling the development of scalable installations that can be tailored to different power and energy requirements. The NMC cell technology combines high energy performance, compactness, and long service life, making the module particularly suitable for peak shaving, load shifting, photovoltaic integration, grid support services, and backup power applications.

Designed for demanding ESS environments, the EM048128P6BA is engineered to operate in conjunction with advanced Battery Management Systems (BMS), ensuring continuous monitoring of critical electrical and thermal parameters. This contributes to enhanced safety, optimized system performance, and extended operational life. Leveraging LG Energy Solution's extensive expertise in lithium-ion battery technology, the EM048128P6BA represents a proven and reliable solution for professional energy storage projects requiring high efficiency, safety, and long-term performance.

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1. Introduction

LG Energy Solution EM048128P6BA battery modules are available for sale. This document describes the main technical characteristics of the batteries and their current condition. The subject of the opportunity is as follows:

General Data	
OEM	LG Energy Solution
Model	EM048128P6BA
Quantity	120
Available from	October 2026
Country	USA

Technical Data	
Condition	New
Year of construction	2021
Rated Voltage	51.8 V
Rated Capacity	128 Ah
Technology	Li-ion NMC

2. Description of Supply

2.1 EM048128P6BA

The EM048128P6BA, developed by LG Energy Solution, is a lithium-ion battery module designed for integration into Battery Energy Storage Systems (BESS).

Its modular design allows multiple units to be integrated into larger battery racks and high-capacity energy storage systems, making it suitable for commercial, industrial and grid-scale applications.

2.1.1 Applications

- Utility-scale and Power Plant BESS
- Renewable energy integration, including solar and wind
- Peak shaving and load shifting
- Grid stabilization and frequency regulation
- Energy management and storage
- Backup and emergency power systems
- Commercial and industrial energy storage

The module is designed to operate within a complete BESS architecture, including a dedicated Battery Management System (BMS), providing a scalable and reliable solution for large-scale energy storage applications.

2.2 Technical data

Parameter	Specification
Manufacturer	LG Energy Solution
Model	M48128P6B
Battery type	Lithium-Ion
Cell technology	NMC
Energy	6.6 kWh
Capacity	128 Ah
Nominal voltage	51.5 V
Voltage range	42.0 – 58.8 V
Dimensions (W × H × D)	445 × 110 × 620 mm
Weight	47 kg
Communication	CAN 2.0B
Application	ESS / BESS – Short Duration & Power

3. Storage status

The batteries are currently stored indoors in a covered and protected warehouse, in accordance with the manufacturer's recommended storage specifications. They remain in their original packaging, providing additional protection against environmental factors and helping to preserve their condition during storage.



Figure 1: General Storage Conditions



Figure 2: Box storage conditions



Figure 3: Battery Storage Condition

4. Scope of Supply

Position	Quantity	Description
1000	120	EM048128P6BA

Table 1: scope of supply.

4.1 Exclusions

Scope not explicitly listed in the Scope of Supply (Table 1) is excluded.
The following items are explicitly excluded:

Mechanical
Modification of any existing systems not explicitly cited.
Missing parts and components.
Electrical
Modification of existing systems not explicitly cited.
Civil
Land preparation
Temporary accesses and final accessing roads
Security plan and hardware.
Temporary accommodation
Finishing and fencing
First aid station and ambulances
Waste disposal facility

Table 2: exclusions from the Scope of Supply.

Project Management
Attainability of installation, commissioning and operation permits, or any other permit.
Assessment and acceptance of safety relevant issues.
Any study, engineering, documentation, or other service.
Additional works resulting from changes in laws or any other reasons, for which EECC is not responsible.
Building of Site Facilities of any kind (lights, water supply and treatment, heating, power supply, etc.).

Custom duties and taxes.
Engineering
Design and detailed engineering of existing equipment.

Table 3: exclusions from scope of Services.

4.2 Technical documentation

Following documents are part of the technical documentation (list is preliminary):

Pos.	Document	Available
1	General	
1.1	Document & drawing list	yes
1.2	Technical data sheet	yes
1.3	Component manuals	yes

Table 4: technical documentation