



TheBattery MOBILE X



Alfen's TheBattery Mobile X

The energy transition is increasingly driving the need for temporary clean power supply. Based on more than 5 years of experience and product maturation, TheBattery Mobile X is Alfen's latest and best solution capable of reliably providing the power and energy you need for events, construction sites, EV charging hubs and many other locations. It is Alfen's 4th generation mobile battery energy storage system which is even more versatile and flexible than the previous generations and can provide up to 70% more energy within the same form factor. It truly empowers your energy transition.

Product Highlights

Xtreme energy capacity

Provides up to 70% more energy than the previous generation of TheBattery Mobile in the same 10ft container form factor.

Xtremely easy to use, anywhere

Plug & play product that supports small grid connections, allowing you to connect TheBattery Mobile virtually anywhere to the grid.

Xtra secure

Based on LFP batteries, which have better high-temperature resistance than NMC batteries and are intrinsically safer. Additionally, Alfen's operating software ensures operations within safe limits at all times.

Xccelerate your sustainability journey

Allows for sustainable energy at any given location, greatly reducing or even eliminating your CO₂ footprint.

Applications



Peakshaving

Provides additional power for peak loads, supporting and safeguarding the grid connection



Ancillary services

Provide FCR and FFR services throughout Europe on the frequency reserve markets



SoC control

Manage the SoC level and limits in operations



Microgrid mode

Setup your local microgrid



50/60Hz operation and conversion

Operate TheBattery at 50 or 60Hz. It can also act as a frequency converter



Parallel Mobile

Group multiple batteries together to increase power

Specifications

Power and capacity

Energy capacity	360, 540 or 720kWh
Battery chemistry	LFP
Power	270kW/ 270kVA
Energy Storage Inverter (ESI) efficiency	97.2%
Voltage	400 VAC +/-10%
Frequency	Supporting 50 and 60Hz

Input and output

Connection to power supply and load	Integrated Low Voltage (LV) distribution board with 3 available (powerlock) connection fields: 1 input field for the local grid or a back-up generator and 2 output fields.
Input power AC	270 kW (400A)
Input connections	<ul style="list-style-type: none">• 1x 400A (N+PE+3P) powerlock - minimal 63A (N+PE+3P) connection with 30A (N+PE+3P) input current.• The powerlock is rated for 800A.• 1x 32A low power connection. Option to enlarge to 125A.
Output power AC	270 kW (400-800A)
Output connections	<ul style="list-style-type: none">• 1x 63A switchable• 2x 400A (N+PE+3P) powerlock with motorised breaker.• The powerlock is rated for 800A.• Every output is independently switchable via modbus.

Operating temperatures

Operating temperature range	-25°C to +35°C ambient. Reducing the output power provides the option of using the product in temperatures up to +45°C. Also, lower temperatures to -40°C are an option, but requires modifications.
Climatisation	Batteries are water glycol climatized and inverters are external forced air cooled.

Control & interfaces

Control	Modbus TCP
HMI screen	High brightness, full color touch screen
Modem	Modem with 4G installed

Specifications

Safety & standards

Standards	Low Voltage Directive (LVD 2014/35/EU)
	Directive 2014/30/EU harmonising EU Member States' laws on electromagnetic compatibility
	NEN-EN-IEC 62933 Electrical energy storage (EES) systems part 1, 2 and 5.
	IEC 62619 Safety requirements for secondary lithium cells and batteries, for use in industrial applications
	IEC 61000-6-4, Electromagnetic compatibility (EMC) - Part 6-4: Generic standards - Emission standard for industrial environments.
Safety	EN IEC 61000-6-2: Generic Standards – Immunity for industrial environments
	<ul style="list-style-type: none">• Breakers on input and output• Emergency stop input and output• Emergency stop button on outside
Fire detection	Smoke detector
Earthing	From grid connection or external earthing pin

General

Dimensions	2.99m x 2.44m x 2.59m
Weight	Approximately 7,000 - 11,000 kg, depending on energy capacity
Type of enclosure	Containerised integrated solution
Container type	10ft
IP-value of enclosure	IP54
Environment class	Water, no salt.
Operation & maintenance	Various Service Level Agreements available. 24/7 helpdesk available

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