Megablock

Build with MV Blocks

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Megablock is a medium-voltage AC energy storage block that is pre-engineered for longer life, higher energy, higher cycling capability, and reduced design complexity.

Megablock is designed to be offered as a whole assembly, with all major components provided by Tesla. It consists of two or more Megapack 3 battery units (Megapacks) and the medium-voltage assembly (MV assembly). The MV assembly provides the medium-voltage transformer (MV transformer), low-voltage connections between the Megapacks and the MV transformer (bus connector assemblies with LV bus bars), a medium-voltage protective device (MV switchgear), and a communications interface to the Tesla System Controller (Field Communicator). Key differentiators of the **Megablock** are larger battery modules, no low-voltage AC circuit breaker, and MV switchgear instead of transformer fuses, all of which lead to reduced deployment scope, lower installed cost, and reduced operational risk.



Megablock

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Megapack 3 Battery Configurations

Megapack is configurable. Tesla-Standard Configurations are specified below.

Tesla-Standard Configurations

	2-Hour	4-Hour	8-Hour
Power per Megapack (kW AC)	2186	1206	603
Energy per Megapack (kWh)[1]	4372	4826	4824
Inverter power per Megapack (kVA)[2]	3180	1596	798
Round-trip efficiency per Megapack (%)[3]	89.7	92.5	92.5
Battery module options	BM01 BM02	BM01 BM02	BM01 BM02

[1] Nominal energy is specified at 25°C (77°F).

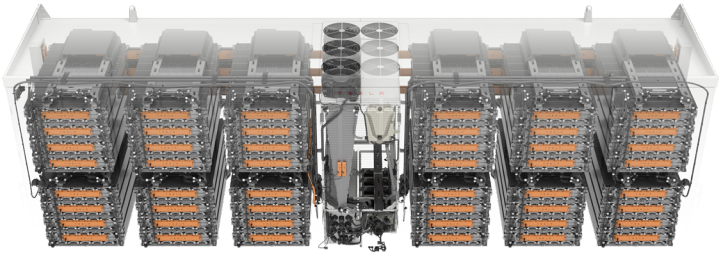
[2] Inverter power listed is maximum apparent power capability.

[3] Full-depth cycle including all power conversion and thermal system losses, at 25°C (77°F).

Battery module options affect a Megapack unit's ratings. Selected characteristics of the available options are specified below.

Battery Module Options

	Maximum Real Power per Megapack (kW)	Maximum Energy per Megapack (kWh)	Manufacturing Location
BM01	2-Hour: 2385 4-Hour: 1206	2-Hour: 4770 4-Hour: 4826	Malaysia
BM02	2-Hour: 2385 4-Hour: 1206	2-Hour: 4770 4-Hour: 4826	China
BM03	4-Hour: 1171	4-Hour: 4686	United States
BM04	4-Hour: 1185	4-Hour: 4743	United States
BM05	2-Hour: 2273 4-Hour: 1142	2-Hour: 4547 4-Hour: 4569	China



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Megapack 3 Battery Unit Technical Specifications

The following specifications apply across all Megapack battery unit configurations.

Electrical Specifications

Nominal AC voltage	480 V AC 3-Phase
Nominal frequency	50 or 60 Hz

Compliance Information

Product certifications[1]	UL 1973, UL 9540, UL 1642, IEC 62619, IEEE 1547
Fire safety	Designed to meet and exceed UL 9540A testing

[1] Selected certifications. Designed to be compliant to grid codes and safety standards of all major markets.

Part Number

3100000-XX-Y	Where X is a number between 0 and 9 and Y is a letter

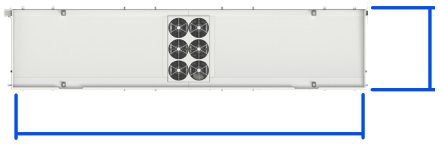
Mechanical Specifications

Ingress ratings	IP66 / NEMA 3R (Main enclosure) IP2X (Thermal bay)
Operating ambient temperature	-40°C to 50°C (-40°F to 122°F)
Shipping weight[2]	39,010 kg (86,000 lb)

[2] For Tesla-Standard Configurations.

Enclosure dimensions

Top view



Front view



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