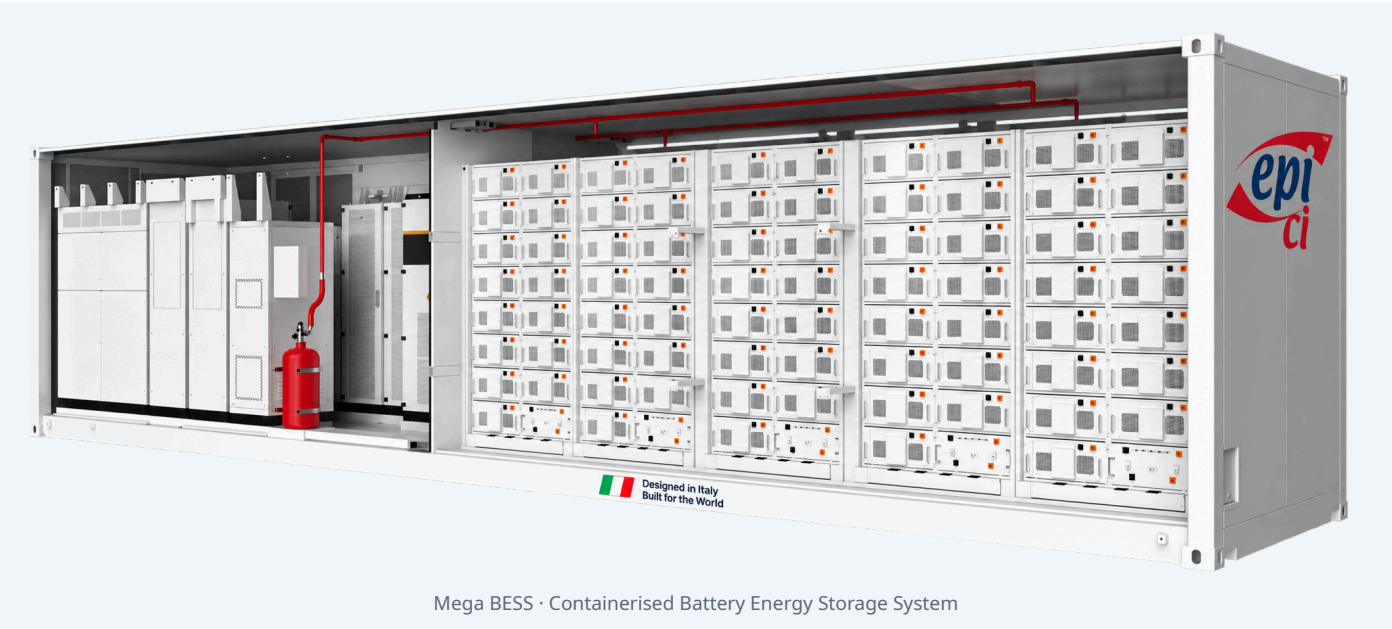
Mega BESS

Containerised Battery Energy Storage System

500 kW–1 MW / 1.0752–2.1504 MWh

Mega BESS brings battery storage, power conversion and system management together in a containerised platform. Flexible operating modes and connectivity to the grid, solar PV, diesel generators and loads support a range of energy applications. Battery management, thermal management and online monitoring provide visibility and control across the system.



Mega BESS · Containerised Battery Energy Storage System

RATED POWER
500 / 1,000 kW

NOMINAL BATTERY ENERGY
1.0752 / 2.1504 MWh

Key Features

Configurable operating modes
Flexible operating modes accommodate different energy management and power supply requirements.

Battery and thermal management
Supports battery management and comprehensive thermal management across the system.

Separated system compartments
Separate electrical and battery compartments help limit the propagation of thermal runaway.

Real-time system monitoring
Online monitoring provides real-time visibility of system operating status.

Multi-source connectivity
Supports simultaneous connection to loads, batteries, the grid, diesel generators and solar PV.

Containerised deployment
An integrated design simplifies transport and installation while supporting flexible deployment.

Applications

C&I Energy Management
Peak shaving and off-peak energy storage.

Emergency Power Supply
Backup power for emergency applications.

Grid Support
Peak regulation and frequency support.

Technical Specifications

Mega BESS · Containerised Battery Energy Storage System

Parameter	BESS 500B-1000	BESS 1000B-2000
AC Data		
Rated power (kW)	500	1,000
Rated voltage (V)	400	
Rated current (A)	722	1,445
Voltage range (V)	320–460	
Rated frequency (Hz)	50 / 60	
Frequency range (Hz)	45–55 / 55–65	
Current distortion — on-grid (THDi)	<3%	
Voltage distortion — off-grid (THDu)	≤1% with linear loads; ≤5% with nonlinear loads	
Power factor	1 lagging to 1 leading (configurable)	
Overload capacity	110% continuous	
AC output connection	3W + N + PE	
Isolation transformer*	315 / 400	
Grid-connected / off-grid switching	Supported	
PV Data		
Maximum PV input voltage (V)	1,000	
Maximum PV power (kW)	600 / 660 / 720	1,200 / 1,320 / 1,440
MPPT operating voltage range (V)	250–850	
Buck-boost operation	Supported	
Battery Data		
Cell specification	3.2 V / 280 Ah, lithium iron phosphate (LFP)	
Nominal voltage / configuration	768 V / 1P240S	
Nominal energy (MWh)	1.0752	2.1504
Operating voltage range (V)	672–850	
Maximum charge / discharge rate	0.5C at 25°C	
Number of battery cycles	≥5,000	
System Data		
System specification**	500 kW / 1,075.2 kWh (1,000 kWh)	1,000 kW / 2,150.4 kWh (2,000 kWh)
Dimensions W × D × H (mm)	6,058 × 2,438 × 2,896	12,192 × 2,438 × 2,896
Net weight (kg)	21,000	38,000
Operating temperature (°C)	0 to +45	
Relative humidity	0–95%, non-condensing	
Ingress protection	IP54	
Noise emission (dB)	<75	
Operating altitude	Up to 5,000 m; derating above 3,000 m	
Cooling method	Intelligent air cooling	
Fire extinguishing system	FM200 / NOVEC1230	
Display	7-inch device display + 10-inch EMS display + 10-inch BMS display (configurable)	
EMS communication	RS485, TCP/IP	

*The source lists the isolation transformer as “315/400” without a unit. **Parenthetical energy figures are reproduced as listed in the source. Confirm these entries and the selected configuration before ordering. Specifications are based on the supplied Mega BESS brochure; product visuals have been adapted with EPI branding.