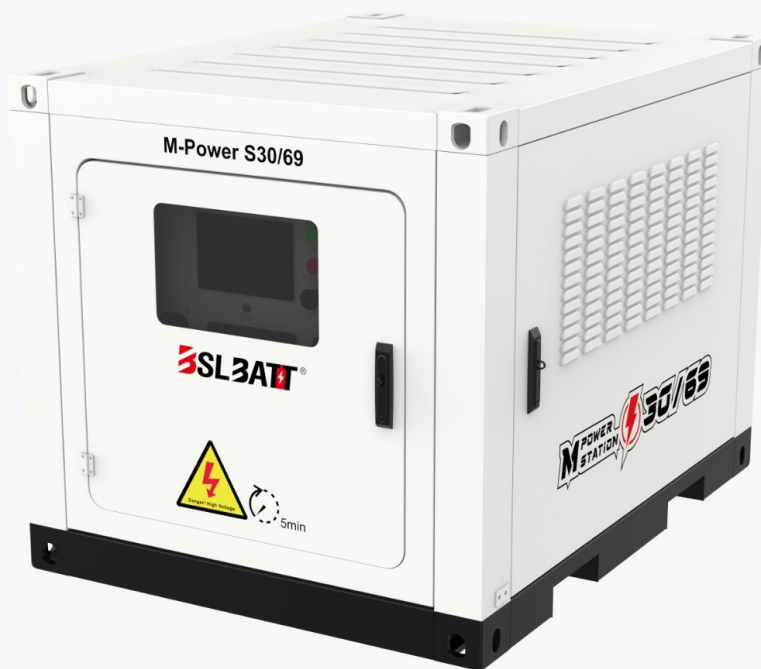




TECHNICAL SPECIFICATION

BSL M-Power S30/69

30 kW / 69.12 kWh High-Voltage Mobile Energy Storage System



30 kW

Rated AC power

69.12 kWh

Battery energy

926 x 1250 x 1030 mm

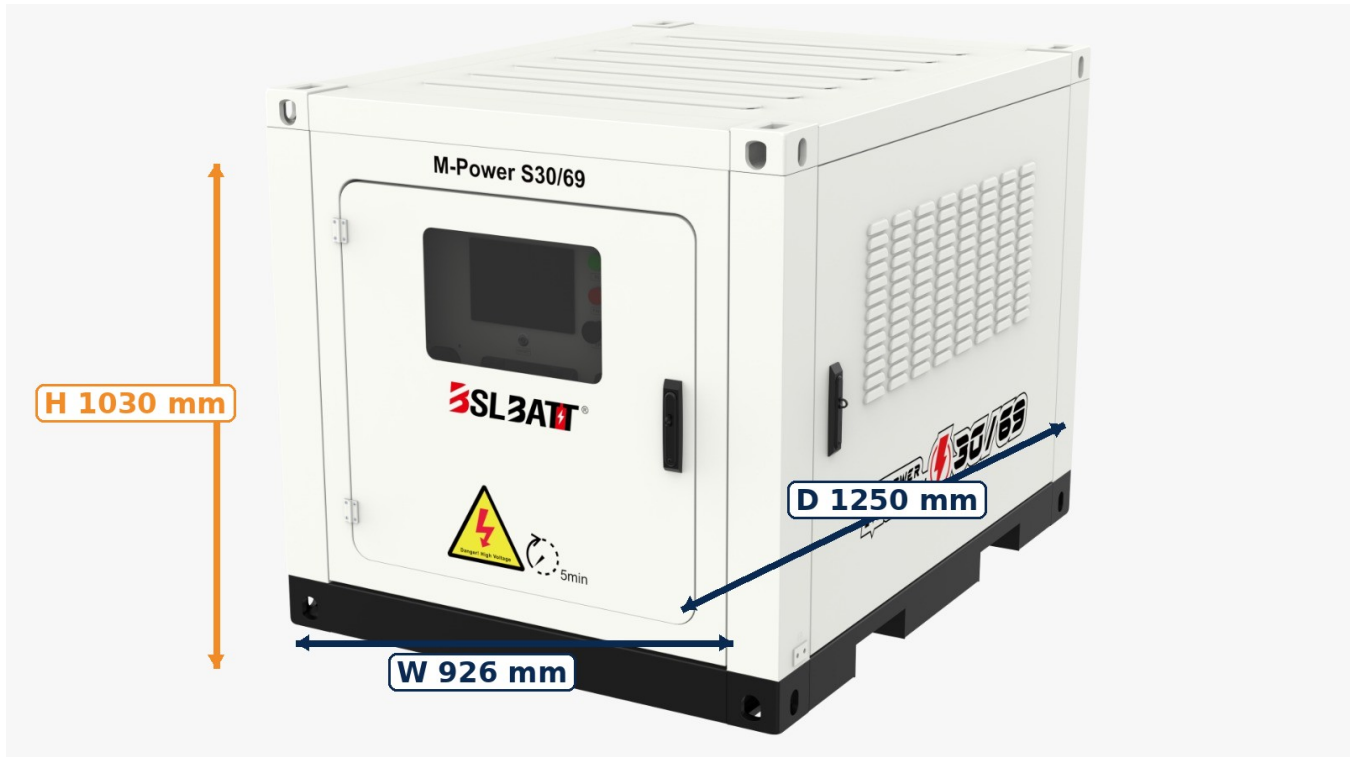
W x D x H

870 kg ±5%

System weight

1. Physical Dimensions & Installation Envelope

Manufacturer equipment envelope: 926 mm (W) x 1250 mm (D) x 1030 mm (H), tolerance ± 5 mm. The dimensional illustration below is for planning/reference and is not a fabrication drawing.



Equipment envelope per BSLBATT datasheet | Diagram not to scale

W x D x H = 926 x 1250 x 1030 mm (± 5 mm)

Physical item	Specification	Planning note
Overall width	926 mm	0.926 m
Overall depth	1250 mm	1.250 m
Overall height	1030 mm	1.030 m
Dimensional tolerance	± 5 mm	Manufacturer stated
Approx. footprint	1.1575 m ²	Calculated from width x depth
System weight	870 kg $\pm 5\%$	Approx. 826.5-913.5 kg range
Protection rating	IP55	Manufacturer stated
Cooling	Intelligent air cooling	Allow airflow; final siting per manual/site design

Site-planning caution: Do not use the cabinet envelope as a substitute for service clearances, ventilation clearances, cable bend radius, access, lifting or structural requirements. Confirm final installation requirements against the current BSLBATT user manual and the project design.

2. Electrical & Battery Technical Data

Battery system

Parameter	Manufacturer specification
Cell chemistry	Lithium Iron Phosphate (LiFePO4)
Cell capacity	3.2 V / 150 Ah
Configuration	1P24S x 6S (1P144S)
Rated energy	69.12 kWh
Rated charge/discharge power	0.5P at 25 ±2 °C
Maximum charge/discharge current	150 A at 25 °C, SOC 50%, 1 minute
Rated voltage	460.8 V
Operating voltage range	403.2-518.4 V

PV input

Parameter	Manufacturer specification
Maximum PV power	19.2 kW + 19.2 kW = 38.4 kW total
Maximum PV voltage	850 V
PV start-up voltage	250 V
MPPT voltage range	200-830 V
Maximum PV current	32 A + 32 A
MPPT routes	2

PCS / AC output

Parameter	Manufacturer specification
Rated power	30 kW
Maximum DC current	100 A
DC voltage range	320-850 V
Rated AC voltage	AC 400 V / 230 V
Rated AC current	43.5 A
Rated AC frequency	50 / 60 Hz (±2 Hz)
Power factor	-0.8 leading to +0.8 lagging
Overload capacity	110% normal operation; 120% for 1 minute

3. General, Interface & Environmental Data

General / environment

Parameter	Manufacturer specification
Operating humidity	15%-90% RH, non-condensing
Operating temperature	-20 °C to +55 °C; derating above 45 °C
Storage temperature	0 °C to 35 °C
Altitude	2000 m; derating above 2000 m
Cooling method	Intelligent air cooling
Communication	RS485 / CAN / RJ45 / DRY
Isolation method	Non-isolated
Protection level	IP55
Dimensions (W x D x H)	926 x 1250 x 1030 mm (±5 mm)
Weight	870 kg ±5%

Connection interfaces

Parameter	Manufacturer specification
125 A three-phase quick connector	3
16 A single-phase outlet	3
125 A DC charging port	1

4. MicroSec Technical Notes

Sizing: 30 kW is the rated power limit of the offered unit. Confirm continuous load, peak load, motor starting current and critical-load strategy before committing to whole-site backup.

Runtime: 69.12 kWh is the nominal battery energy. Actual backup duration depends on usable SOC window, conversion losses, reserve settings, temperature, power level and recharge availability.

PV design: Use the manufacturer PV limits: 38.4 kW maximum stated PV power, 850 V maximum PV voltage and 200-830 V MPPT range. String design must remain within all voltage/current limits across temperature extremes.

Generator integration: Where diesel generation remains on site, generator control, transfer logic, earthing arrangement, neutral treatment and operating sequence must be engineered for the specific installation.

Compliance: Final installation design, protection, isolation, earthing, cabling, labelling and commissioning must be assessed against applicable South African electrical requirements and manufacturer instructions.

Manufacturer sources used for this specification: BSLBATT M-Power S30/69 official product page and M-Power S30/69 datasheet (model M-Power S30/69). Data checked 28 September 2026.