

# BESS SERIES

## State-of-the-art power & energy-storage system.

Introducing the Multiboxx Energy BESS

The BESS Series is a high-voltage lithium-ion battery system with a wide temperature operating range, offering ultimate flexibility. It provides a reliable backup power supply for supermarkets, commercial and industrial sites,, schools, farms, factories, warehouses, ports, terminals and much more, to smooth the load curve and achieve peak load demand. This pioneering system guarantees efficient energy storage, management, and distribution, providing answers to numerous power challenges that are prevalent in today's world.



It has been meticulously engineered to enable mass production. Its modular internal construction significantly reduces the costs associated with scaling and maintenance, once the initial unit has been procured.

Available in three different sizes to accommodate varying power requirements and space availability. This product's design and capabilities demonstrate the innovation and foresight of Multiboxx and Sunsynk in anticipating and responding to the energy needs of the future.

Model	1 MWh/400kW	500 kWh/250kW	250 kWh/100kW
System Specification			
Max. Grid AC Input (kW)	800 (bypass)	500 (bypass)	250 (bypass)
Max. Load Output (kW)	400	250	100
AC Output Frequency & Voltage	50/60Hz; 400Vac		
Off-Grid Backup Power (kW)	400	250	100
Off-Grid Switching Duration (ms)	20		
Grid Type	3W+N+PE		
THD	<3%		
Power Factor	-1 leading to +1 lagging		
System Communication	ETH		
Black Start	Yes		
Fire Detection	Canister based system with heat & smoke detection		
Fire Alarm	Alarm panel, strobes and horns with UPS backup		
Aux Load	5kW		
Auxiliary Power Interface	400Vac, 3W+N+PE		
Auxiliary Power Backup	30mins (main load)		
Local Emergency Stop	Yes		
Remote Stop/Shut-off	Yes		

Model	1 MWh/400kW	500 kWh/250kW	250 kWh/100kW
<b>Battery Technical Specification</b>			
Rated Energy (kWh)	980	537	244
Battery Capacity (Ah)	100	100	100
Battery Operating Voltage (V)	480 ~ 700	470 ~ 613	537 ~ 700
Battery Communication	CAN, RS485		
Pack Configuration	1P16S (16 Cells)	2P12S (24 Cells)	2P12S (24 Cells)
Rack Configuration	1P192S (12 Packs)	2P168S (14 Packs)	2P192S (16 Packs)
Stack Configuration	8*2*1P192S (16 Racks)	5*2P168S (5 Racks)	2*2P192S (2 Racks)
<b>PV Technical Specification</b>			
Max. DC Input Current Power (W)	65000*8	65000*5	65000*2
Max. DC Input Voltage (V)	1000		
Start (V)	180		
MPPT Voltage Range (V)	150-850		
Max. Load MPPT Voltage Range (V)	450-850		
Rate DC Input Voltage (V)	600		
Max. Input Short Current (A)	50		
Max. MPPT Input Current (A)	36		
Number of MPPT/Number of String	32/64	20/40	8/16
<b>Other Technical Specification</b>			
Dimension (L x W x H mm)	6058 x 2438 x 2896	2991 x 2438 x 2896	1980 x 2438 x 2438
Weight Appr. (kg)	16500	7500	4650
IP Rating of Enclosure	IP54		
Seismic Parameter	9		
Noise @1m Distance	≤ 75 dB		
Operating Temperature Range (°C)	-20°C ~ +60°C (> 45°C derating)		
Relative Humidity	≤ 95% (non-condensing)		
Grid Connection Standards	G99, NRS 097-2-1, AS/NZS 4777.2		
Certification	UN 3536, IEC/EN 62109-1/2, EMC, IEC 62619, IEC62040, VDE-2510, CEC		

**\*Specifications can be subject to change.**