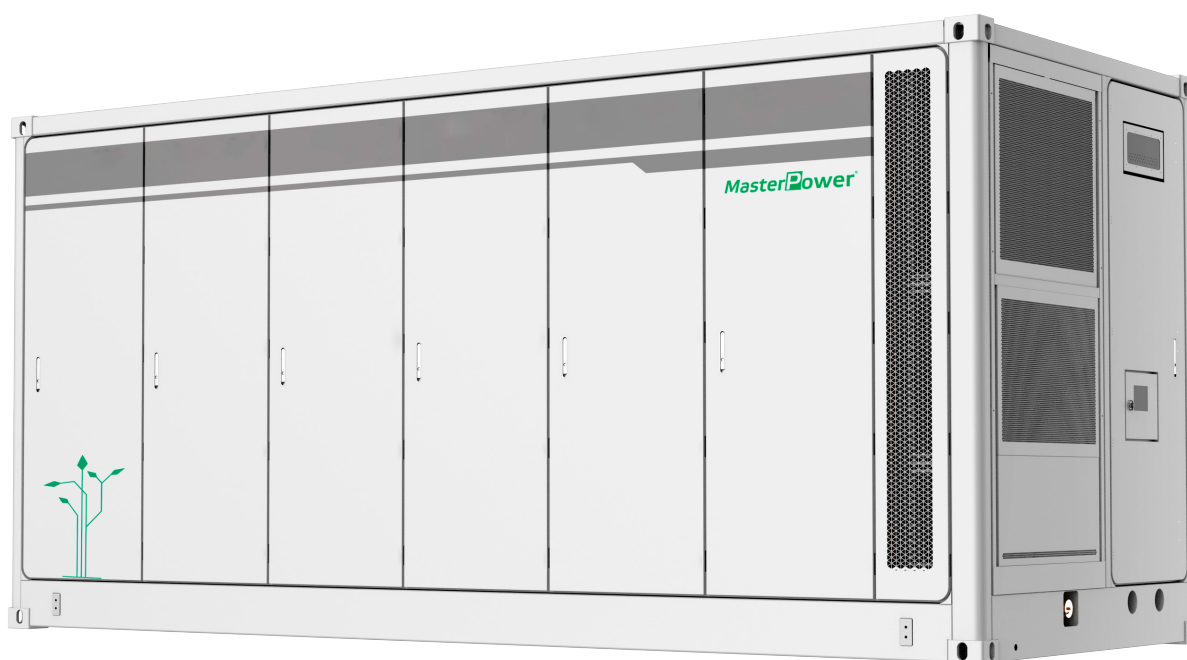


MF-SCS-5016KWH BESS CONTAINER

20ft Battery & Boost Converter One Stop Solution



MasterPower®

MF-SCS-5016KWH

BESS CONTAINER

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PRODUCT FUNCTION

- The BMS ensures safe and efficient operation of the battery by monitoring key parameters such as voltage, temperature, and charge/discharge status. It helps to extend battery life, improve performance, and prevent issues like overcharging or overheating.
- The UPS function ensures continuous power during grid failures or disruptions, maintaining stable operation of critical equipment like data centers or communication stations, thus enhancing system reliability.
- MF-SCS-5016KWH supports multi-unit parallel operation, enabling scalable capacity expansion. This feature ensures flexibility and reliability, making it suitable for both small and large-scale projects.
- The EMS optimizes energy flow within the system, dynamically adjusting charging and discharging strategies based on demand and grid conditions. It enhances efficiency, reduces energy costs, and integrates with grid systems for stable power management.
- The 1500V DC battery system offers high energy density, low losses, and cost-efficiency. It is compatible with most PCS on the market, making it adaptable to various renewable energy and grid applications.
- Equipped with advanced fire protection features, including temperature control and fire detection systems, MF-SCS-5016KWH ensures safety by automatically activating emergency measures in case of abnormal conditions, minimizing fire risks.

PRODUCT FEATURES

- The liquid cooling system battery box offers the highest capacity with the latest dimensions, requiring minimal space while providing flexible transportation and installation options.
- Featuring a modular structure and an efficient liquid cooling system, it is designed to perform well in extreme environments, maximizing battery lifespan and performance.
- Equipped with comprehensive battery monitoring, multi-layer fire prevention, top ventilation design, and active AI management to ensure maximum safety and reliability.
- Comes with a complete EMS that is easy to upgrade, featuring big data management checks, proactive handling, and intelligent SOC calibration to ensure optimal performance with zero downtime.

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BESS PARAMETER

Battery Energy Storage

Cell Type	LFP 3.2V/314Ah
Module Configuration	1P104S
String Configuration	1P416S
Number of Battery System	3
Number of Strings	16
Capacity (kWh)	5016
Nominal Voltage (V)	1331.2
Operation Voltage Range (Vdc)	1218.88~1476.8
Discharge Depth	90% DoD
Thermal Management Mode	Liquid Cooling
Thermal Control Management	Aerosol Extinguishing or PFH

AC Output

AC Output Power(kVA)	2580
Rated Output	690V, 3W+PE
Rated Grid Frequency(Hz)	50/60
Power Factor	-1~1
THDi	<1.5% (100% load)

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System Characteristics

Communication	CAN, RS485, Ethernet
Warranty	3 years free, paid from
System Certifications	IEC 62619, IEC 62477,
PCS Certifications	EN/IEC 62477-1, IEC 60068-2-6:2007, IEC 61683, EN/IEC 61000-6-2, EN/IEC

General Parameters

Product Model	MF-SCS-5016KWH
Dimensions - D*H (mm)	2438*2591
Dimensions - W (mm)	8973
Battery System Total	~45000
Operation Altitude	4000m / 13000feet(>3000m/10000feet derating)
Noise Level 1m	<75dB
IP Rating	IP54
Operation Temperature (°C/°F)	-20~55/-4~131 (De-rating over 45°C/113°F)
Operation Humidity (RH)	≤95%, No condensation
Storage Conditions	-20°C to 30°C, Up to 95% RH, non-condensing, State of Energy (SoE): 50% initial