

Shanghai Sermatec Energy Technology Co., Ltd., fondata nel 2017, è un operatore leader nella digitalizzazione e stoccaggio dell'energia e fornitore di soluzioni di apparecchiature per lo stoccaggio di energia. È un'impresa "Tier 1" per le soluzioni di accumulo di energia commerciali e industriali o di pubblica utilità, e per operazioni di energia intelligente digitale (gestione e funzionamento delle risorse energetiche, centrali elettriche virtuali, trading di energia, certificati verdi, sviluppo e trading di risorse di carbonio, ecc.) in modo da contribuire alla realizzazione della nuova architettura del sistema energetico.

- 20+ anni di esperienza
- 30+ paesi di operatività

- 100% Design Proprietario
- 55% del personale in R&D

SERLATTICE Series 5.015MWh Liquid Cooling Container-Type ESS

SMT-ESS-L20CB-5015CE

The [Serlattice] series liquid-cooled container energy storage system of Sermatec Energy is mainly composed of multiple battery racks, battery management system, liquid cooling system, fire suppression system, auxiliary power distribution system and the enclosure. The battery rack is composed of 4 battery packs and one high voltage box in series, and the battery pack is composed of 104 prismatic aluminum shell lithium iron phosphate battery cells in series.



Product Features

Efficient & flexible

- Efficient liquid cooling & heat dissipation, synchronous improvement of battery life and system discharge capacity
- Modular design, convenient for battery replacement and system supplementation & expansion
- 1500V system, with synchronous improvement of energy density, power density and system efficiency and reduction of system cost

Cost reduction

- Intelligent liquid-cooled temperature control to reduce auxiliary power consumption of the system
- Pre-installation design for easy transportation of energy storage container
- Integral transportation to reduce on-site installation time

Safe and reliable

- Electrical cabin and battery compartment compartment design, reduce the risk of heat spread
- Multi-level electrical linkage protection measures
- Gas fire + water fire + ventilation system



Data Centers



Commercial
Premises



Industrial Parks



Area Expansion



Power Genera-
tion Side



Grid Side

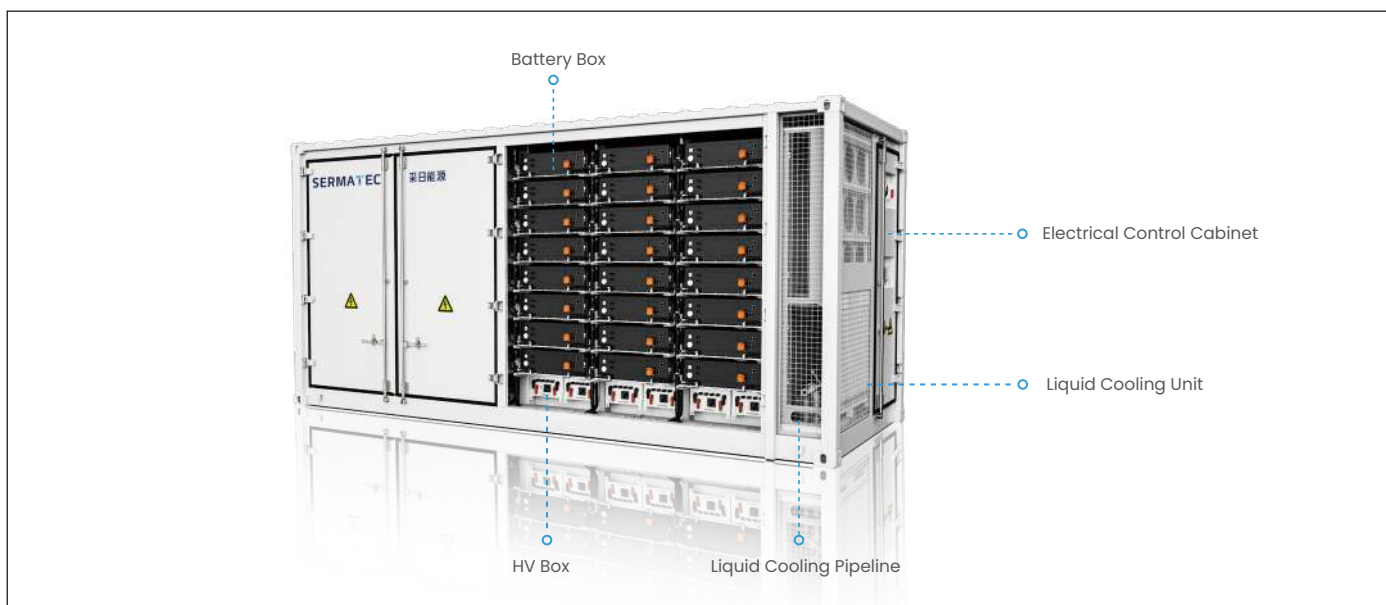
Technical Data

Product Type

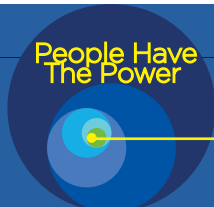
SMT-ESS-L20CB-5015CE

Rated Energy (kWh)	5015
Rated Power (kW)	2500
Cooling Type	Liquid Cooling
Battery Cell Type (V/Ah)	3.2/314, LFP
Pack Configuration	1P104S
Rack Configuration	1P416S
Rack Quantity	12
Rated Voltage (V)	1331.2
Voltage Range (V)	1164.8~1497.6
FSS	Aerosol + Water
Dimension (W*D*H) mm	2438*6058*2896
Weight (t)	42
IP Level	IP55
Working Temperature Range (℃)	-30~55 (45 Reduction)
Altitude (m)	4000 (2000 Above Reduction)
Communication Protocol	Modbus TCP/RTU, Support IEC 61850
Communication Interface	RS485, Ethernet

Structure



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EASYCUBE Series 215kWh Commercial & Industrial ESS SMT-ESS-CUBE215CE

The product is an integrated energy storage device designed to meet commercial and industrial energy storage needs. With a modular design adopted, the product offers flexible expansion and easy installation, operation and maintenance. The cabinet has multiple security design, with the fire protection system supporting perfluorohexane, secondary AC-side lightning protection, integrated emergency stop (E-STOP), insulation detection and protection, water immersion protection, and other safety functions to ensure product safety. The product integrates both liquid cooling and air cooling systems, features EMS functions, and supports photovoltaic access and various EMS energy strategies. Moreover, it adapts to different scenarios such as photovoltaic consumption, peak-valley arbitrage, demand control, and electricity market trading, and contribute to the development of commercial and industrial energy storage.



Product Features

- MPPT function; PV access supported
- Modular design, flexible expansion, and easy operation and maintenance
- High energy density, small volume, and convenient installation and transportation
- 100% unbalanced load and 110% long-term overload supported
- Adjustable output power, configurable charging and discharging power, strong adaptability
- Local HMI and cloud management, and remote upgrades supported



Data Center



Commercial Buildings



Industrial Parks



PV, Storage &
Charging Integration



Distribution Grid
Expansion

Technical Data

SERMA^{TEC}

Product Type SMT-ESS-CUBE2I5CE

Battery Parameters

Nominal Capacity (kWh)	215
Rated Voltage (V)	768
Cell Type (V/A)	3.2/280,LFP
Pack Configuration	1P48S
Rack Configuration	(1P48S)*5S
Rated Power (kW)	100

PV Input Parameters

Rated Input Power	50kW *2
MPPT Voltage Range (V)	300~650
MPPT Quantity	2
Rated Current	160A *2

Grid-connected Output Parameters

Rated Grid Voltage (V)	400
Grid Frequency (Hz)	50/60
Rated Output Power (kW)	100
Maximum Output Power (kW)	110
Rated Output Current (A)	145
Current THD	≤3%
Power Factor	-0.99~+0.99

Off-grid Output Parameters

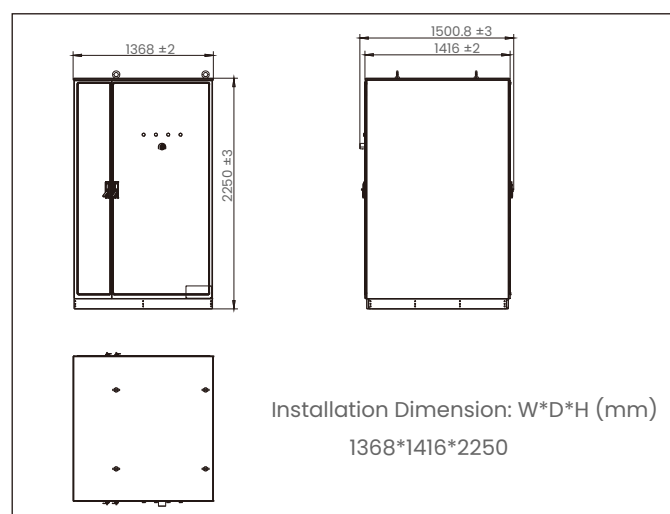
Off-grid Output Voltage (V)	400
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Off-grid Output Frequency (Hz)	50/60
Off-grid Apparent Power (kVA)	100
Voltage THD (%)	≤3
Unbalanced Load Capacity (%)	100

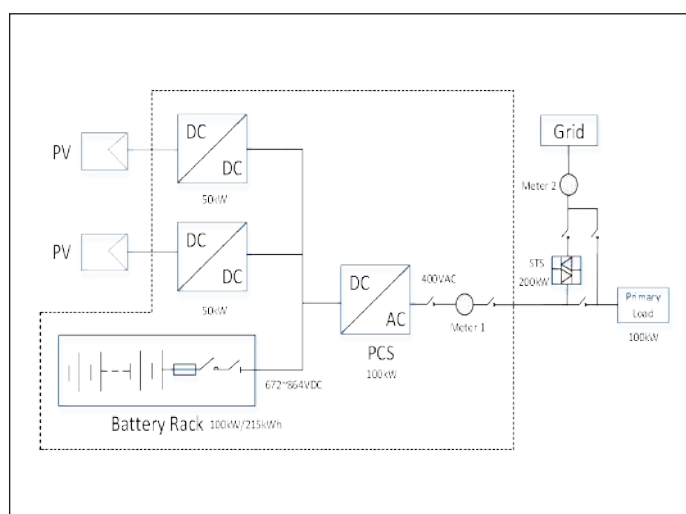
Basic Parameters

System Efficiency	≥87%, @0.5P,25°C
Thermal Management	PCS, DC/DC: forced air cooling Battery: liquid cooling
Fire Protection	Aerosol + NOVEC1230【optional】
Communication Mode	CAN//Eth/RS485
Human-Machine Interaction	Indicator light + Touch Screen + Cloud Platform
Access Mode	Three-phase Four-wire
Isolation Mode	Non-isolated
Operating Temperature (°C)	-25~+50
Operating Humidity (%)	0 ~ 95RH
Storage Temperature (°C)	-30~+60
Operating Altitude (m)	2000
Level of Protection	IP54
Anti-corrosion Grade	C4-M
Dimension (W*D*H) mm	1368*1416*2250
Weight (kg)	2700

Installation Dimensions

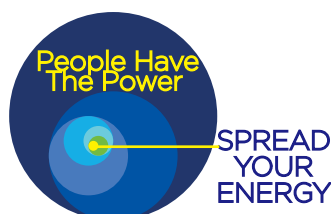


Circuit Diagram



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PHTPower.com



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EASYCUBE Series 372kWh Commercial & Industrial ESS SMT-ESS-CUBE372

Battery rack consists of 8 battery modules and one control box, chiller, fire protection, etc. BMS is composed of BMU and BCU. BMS gathers status data from cell, module and rack, and exchange information with other components.

Battery module consists of IP52S Battery Cell and one BMU. Control Box responses for controlling the main power line.



Product Features

- PACK-level fire protection, ensuring high safety
- Cabinet body rated at IP55, suitable for outdoor complex scenarios
- Flexible deployment and plug-and-play, shortening the construction period
- Intelligent battery health management (health assessment, safety early-warning, service life prediction), comprehensive control of system operation status and risks, and safe operation and maintenance
- High-speed scheduling response and inter-cluster cell temperature difference of $\leq 3^{\circ}\text{C}$, significantly improving the battery life



Data Center



Commercial Buildings



Industrial Parks



Pv, Storage &
Charging Integration



Distribution Grid
Expansion

Technical Data

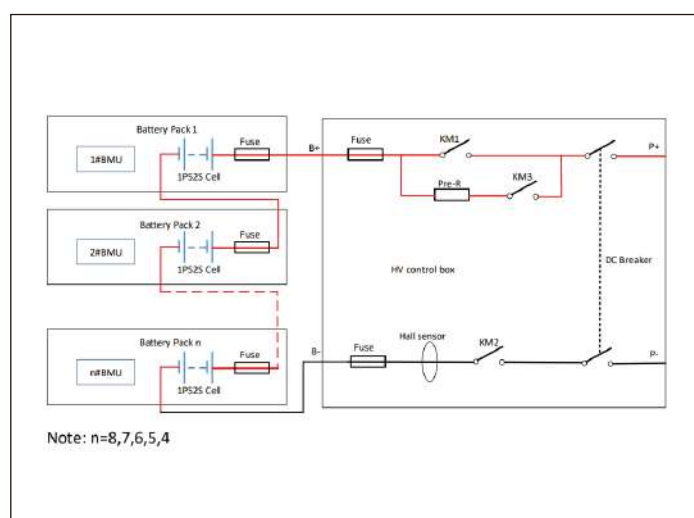
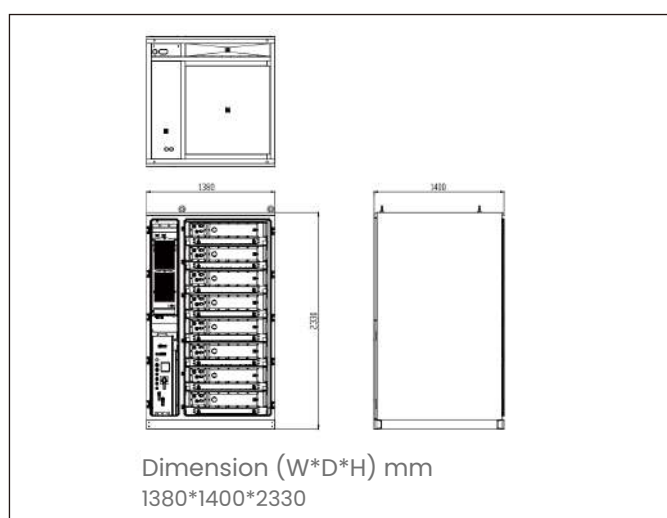
Product Type

SMT-ESS-CUBE372

Nominal Voltage (V)	1331.2
Nominal Capacity (kWh)	372
Nominal Power (kW)	186
Series And Parallels In System	1P416S
Liquid-cooling Modules In Series	8
Protection Level	IP55
Dimension (W*D*H) mm	1380*1400*2330
Weight (kg)	3700
Temperature Range (°C)	-20~45
Communication Port	RS485, CAN, Ethernet
Designed life-cycle (Years)	>10

Installation Dimensions

Circuit Diagram



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