



SSM-HH500K-P3

500kW All-in-One Hybrid Cabinet
8 MPPTs | Integrated EMS · PCS · BMS

Large-capacity all-in-one hybrid inverter for C&I applications. Integrated with PCS, EMS, and BMS, the SSM-HH500K-P3 delivers 500kW of hybrid power in a compact cabinet. Supporting parallel connection of up to 10 units, it enables flexible system scaling up to 5MW—ideal for commercial and industrial energy storage.



All-in-One Hybrid Cabinet

Integrates PCS, EMS, and BMS; supports PV, battery, load, and grid for full-scenario energy storage



Multiple DC Inputs with High Current

8 MPPT-enabled DC inputs, each up to 110A, compatible with high-power PV and multiple strings



Wide DC Voltage Range

150V to 1000V DC range supports various PV and battery setups for greater design flexibility



Hot-Swappable Modular Design

Hot-swappable modules with compact <2m² footprint for easy O&M and high power density



Smart Versatility

Seamless on/off-grid switching, adaptable to self-consumption, power dispatch, backup power, and more



Flexible Expansion & Fast Grid Transfer

Supports up to 10 units in parallel, expandable to 5MW; seamless on/off-grid switch within 20ms

TECHNICAL SPECIFICATION	
Model	SSM-HH500K-P3
DC (PV)	
Max PV Voltage (V)	1000
MPPT Voltage Range (V)	150-950
MPPT Number	8
Max Input Current (A)	8×110
DC (BATTERY)	
Battery Voltage Range (V)	600-1000V (for 3P3W) / 680-1000V (for 3P4W)
Rated Battery Voltage (V)	830
Max Charging Current (A)	4×220
Max Discharging Current (A)	4×220
Battery Type	Lithium / Lead-Acid
AC (ON-GRID)	
Rated Power (kW)	500
Max Power (kVA)	550
Rated Voltage (V)	380 / 400
Rated Frequency (Hz)	50 / 60
Frequency Range (Hz)	45~55 / 55~65
Power Factor Range	1 Leading~1 Lagging
THDi	<3%
Rated Current (A)	722
AC (OFF-GRID)	
Rated Voltage (V)	380 / 400
THDu	<2% (Linear Load)
Rated Frequency (Hz)	50 / 60
Overload Capacity	110%
GENERAL PARAMETER	
Machine Dimensions (W*H*D) (mm)	2000*1000*2050
Weight (kg)	1500
Temperature Range (°C)	-35°C~+55°C (Derating above 45°C)
Parallel Function	Yes, up to 10pcs
Protection Degree	IP20
Humidity	0~95%
Noise (dB)	<80
Altitude Derating (m)	≤4000
Cooling Method	Air-Cooled
DISPLAY & COMMUNICATION	
Display	LCD
BMS Communication	RS485, CAN
EMS Communication	RS485, TCP / IP
Certifications	IEC 62109; IEC 61000

- The AC voltage and frequency range can differ according to the grid standards of each country.
- Please note that all specifications are subject to change without prior notice.