SC2500HV

Power Conversion System

SUNGROW
Clean power for all

HIGH YIELD

- Advanced three-level technology, max. efficiency 98.8%
- Effective forced air cooling, 1.1 overload capacity, no derating up to 50°C
- Wide DC voltage operation window, full power operation at 1500V
- Supports two independent DC inputs

EASY O&M

- Integrated current and voltage monitoring function for online analysis and fast trouble shooting
- Low transportation and installation cost due to 10-foot container design
- Modular design and all components front accessible,easy for maintenance
- Integrated auxiliary power supply panels for external devices
- Easy for installation and depolymen

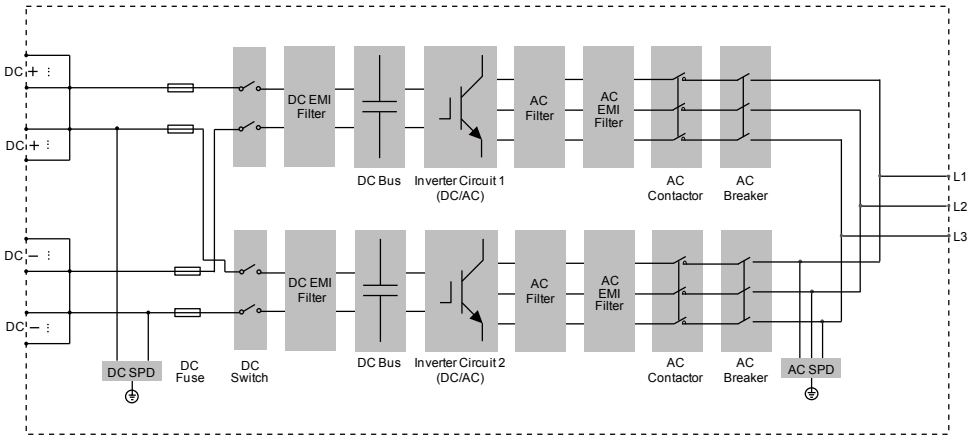
ESS APPLICATIONS

- Typical applations: peak shaving, energy shifting,frequency regulation, capacity firming
- Compatible with high voltage battery system, low system cost
- Bidirectional power conversion system with full four-quadrant operation
- Battery charge & dis-charge management and black start function integrated

GRID SUPPORT

- Compliant with CE, IEC 62477, IEC 61000, SGSF
- Dynamic grid voltage and frequency support
- L / HVRT, L / HFRT, soft start / stop, specified power factor control and reactive power support

CIRCUIT DIAGRAM



System Type	SC2500HV
DC Side	
Max. DC voltage	1500 V
Min. DC voltage	800V
DC voltage range for nominal power	800 – 1500 V
Max. DC current	3508 A
Max. DC power	2806 kW
No. of DC inputs	1 or 2 optional
AC Side (Grid)	
AC output power	2750 kVA @ 45 ℃ / 2500 kVA @ 50 ℃
Max. AC current	2886 A
Nominal AC voltage	550 V
AC voltage range	484 – 625V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
Max.THD of current	< 3 % (at nominal power)
DC component	< 0.5 % In
Power factor at nominal power / Adjustable power factor	>0.99 / 1 leading – 1 lagging
Adjustable Reactive power	-100% – 100%
Feed-in phases / Connection phases	3 / 3
AC Side (Off-Grid)	
Nominal AC voltage	550 V
AC voltage range	484 – 625V
AC voltage Distortion	< 3 % (Linear load)
DC voltage component	< 0.5 % Un (Linear balance load)
Unbalance load Capacity	100%
Nominal Voltage frequency / Voltage frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
Efficiency	
Max. efficiency / European efficiency	98.8 % / 98.5 %
Protection	
DC input protection	Load break switch + fuse
AC output protection	Circuit breaker
Overvoltage protection	DC Type II / AC Type II
Grid monitoring / Ground fault monitoring	Yes / Yes
Insulation monitoring	Yes
Overheat protection	Yes
General Data	
Dimensions (W*H*D)	2991*2591*2438 mm
Weight	13227.8 lb / 6 T
Isolation method	Transformerless
Degree of protection	IP54
Auxiliary power supply	220 Vac, 2 kVA / Optional: 480 Vac, 30 kVA
Operating ambient temperature range	-30 to 60 ℃ (> 50 ℃ derating)
Allowable relative humidity range	0 – 95 % (non-condensing)
Cooling method	Temperature controlled forced air cooling
Max. operating altitude	4000 m (> 2000 m derating)
Display	Touch screen
Communication	Standard: RS485, CAN, Ethernet; Optional: optical fiber
Compliance	CE, IEC 62477, IEC 61000, SGSF
Grid support	L / HVRT, L / HFRT, active & reactive power control and power ramp rate control