

ST3577KWHD1500HV +SG3150U Storage System



HIGH INTEGRATION

- DC coupled energy storage system integrated with PV inverter
- Prepared energy storage and PV interfaces for easy system integration

EFFICIENT AND FLEXIBLE

- Intelligent cell-level temperature control ensures higher efficiency and longer battery cycle life
- Modular design supports parallel connection and easy system expansion

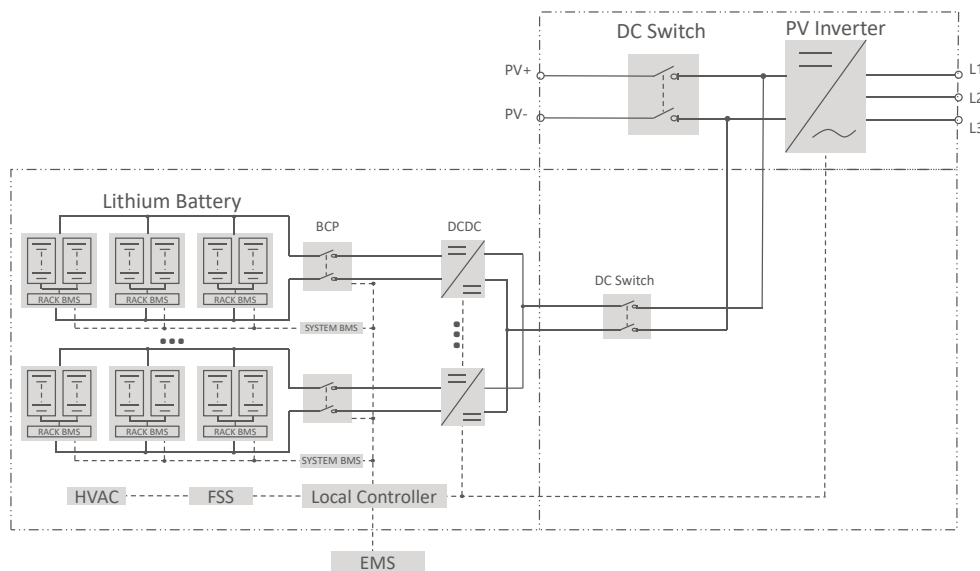
SAFE AND RELIABLE

- DC electric circuit safety management includes fast breaking and anti-arc protection
- Multi-state monitoring and linkage actions ensure battery system safety

SMART AND FRIENDLY

- Integrated local controller enables single point of communication interface
- Fast state monitoring and faults record enables pre-alarm and faults location

CIRCUIT DIAGRAM



System Type	ST3577KWH-D1500HV+SG3150U
Inverter Data	
Product Model	SG3150U
AC output power	3,150 kVA (@ 45 °C / 113 °F)
Max. AC output current	2,886 A
Nominal AC voltage	630 V
AC voltage range	554 ~ 690 V
Nominal grid frequency / Grid frequency range	60 Hz / 55 ~ 65 Hz
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading ~ 0.8 lagging
Feed-in phases / Connection phases	3 / 3
Max. PV input voltage	1,500 V
MPPT voltage range for nominal power	940 ~ 1,300 V
Number of PV inputs	18 ~ 24
Max. PV input current	4,983 A
Energy Storage System Data	
Unit Model	ST3577KWH-D1500HV
Number of Unit	1
Cell type	Samsung SDI Mega E3, 3.68 V / 100 Ah
Configuration of Battery system	2P324S * 15
Battery capacity (BOL)	3,577 kWh
Battery voltage range	1,036.8 ~ 1,344.6 V
Working voltage (DCDC)	500 ~ 1,500 V
Voltage range for nominal power(DCDC)	960 ~ 1,350 V
Nominal power(DCDC)	300 KW * 5
Max. current (DCDC)	312.5 A * 5
General Data	
Dimensions (W * H * D) of battery unit	12,192 * 2,896 * 2,438 mm / 480.0" * 114.0" * 96.0"
Weight (with / without battery) of battery unit	40,000 kg / 17,000 kg 88,184 lbs / 37,478 lbs
Dimensions (W * H * D) of PV Inverter	2,991 * 2,896 * 2,438 mm / 117.8" * 114.0" * 96.0"
Weight of PV Inverter	6,900 kg / 15,211.9 lbs
Degree of protection	IP 54 / NEMA 3R
Operating temperature range	-30 to 50 °C / -22 to 122 °F
Relative humidity	0 ~ 95 % (non-condensing)
Max. working altitude	2,000 m / 6,562 ft
Cooling concept of battery unit	Heating, Ventilation and Air Conditioning
Fire suppression system of battery unit	FM200 extinguishment system
Communication interfaces	RS485, Ethernet
Communication protocols	Modbus RTU, Modbus TCP
Compliance	UL9540 (pending)