

ST4200KWH-2000

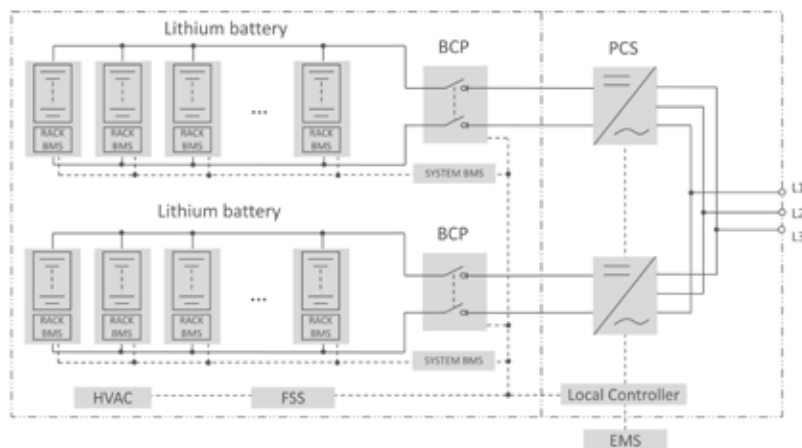
Storage System



SYSTEM FEATURES

- Highly integrated system with separate inverter and battery sections to allow flexible transportation and on-site installation
- Integrated with local controller, HVAC and FSS to enable unified communication, ensure system safety and maximize system efficiency

CIRCUIT DIAGRAM



System Type	ST4200KWH-2000	ST8400KWH-2000
DC Data		
Cell type	Samsung SDI Mega E2, 3.68V/94Ah	Samsung SDI Mega E2, 3.68V/94Ah
Configuration of system	264S46P	2 x 264S46P
Battery capacity (BOL)	4,200 kWh	8,400 kWh
Battery voltage range	844 ~ 1,095 V	844 ~ 1,095 V
BMS communication interfaces	RS485, Ethernet	RS485, Ethernet
BMS communication protocols	Modbus RTU, Modbus TCP	Modbus RTU, Modbus TCP
AC Data		
Nominal AC power	2,000 kVA	2,000 kVA
Max. AC power	2,200 kVA	2,200 kVA
Max.THD of current	< 3 % (at nominal power)	< 3 % (at nominal power)
DC component	< 0.5 % (at nominal power)	< 0.5 % (at nominal power)
Nominal grid voltage	540 V	540 V
Grid voltage range	475 ~ 594 V	475 ~ 594 V
Power factor	> 0.99 (at nominal power)	> 0.99 (at nominal power)
Adjustable power factor	0.8 leading ~ 0.8 lagging	0.8 leading ~ 0.8 lagging
Nominal grid frequency	60 Hz	60 Hz
Grid frequency range	55 ~ 65 Hz	55 ~ 65 Hz
Isolation method	Transformerless	Transformerless
General Data		
Dimensions of PCS unit (W * H * D)	2,991 * 2,896 * 2,438 mm / 117.8" * 114.0" * 96.0"	2,991 * 2,896 * 2,438 mm / 117.8" * 114.0" * 96.0"
Dimensions of battery unit (W * H * D)	12,192 * 2,896 * 2,438 mm / 480.0" * 114.0" * 96.0"	2 * (12,192 * 2,896 * 2,438 mm / 480.0" * 114.0" * 96.0")
Weight of PCS unit	6.0 T / 13,227.8 lbs	6.0 T / 13,227.8 lbs
Weight of battery unit (with / without battery)	46.0 T / 16.0 T 101,412.6 lbs / 35,274.0 lbs	2 * (46.0 T / 16.0 T 101,412.6 lbs / 35,274.0 lbs)
Degree of protection	IP54 / NEMA 3R	IP54 / NEMA 3R
Operating temperature range	-30 to 50 °C / -22 to 122 °F	-30 to 50 °C / -22 to 122 °F
Relative humidity	0 ~ 95 % (non-condensing)	0 ~ 95 % (non-condensing)
Max. working altitude	2,000 m / 6,561 ft	2,000 m / 6,561 ft
Cooling concept of battery chamber	Heating, Ventilation and Air Conditioning	Heating, Ventilation and Air Conditioning
Cooling concept of PCS chamber	Temperature controlled forced air cooling	Temperature controlled forced air cooling
Fire suppression system of battery unit	FM-200 extinguishment system	FM-200 extinguishment system
Communication interfaces	RS485, Ethernet	RS485, Ethernet
Communication protocols	Modbus RTU, Modbus TCP, IEC 104	Modbus RTU, Modbus TCP, IEC 104
Compliance	UL 9540	UL 9540