

# ST548KWH-250

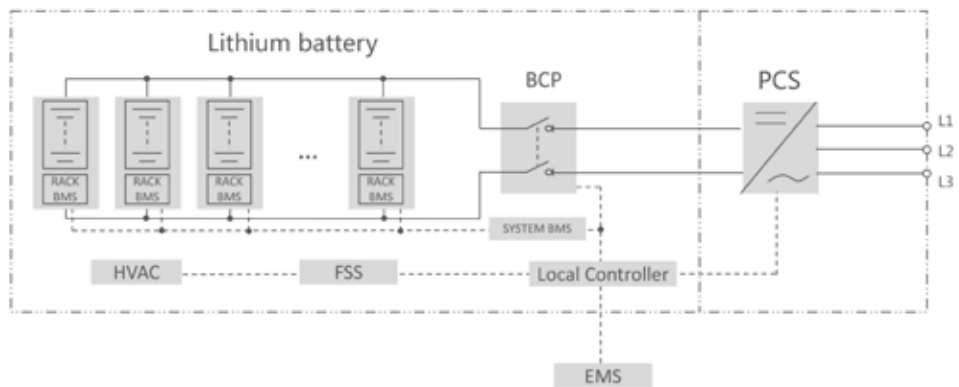
Storage System



## SYSTEM FEATURES

- Side-by-side design for flexible system arrangement on site
- Unilateral design allows maintenance from one side
- Integrated with local controller, HVAC and FSS to enable unified communication, ensure system safety and maximize system efficiency

## CIRCUIT DIAGRAM



System Type	ST548KWH-250	ST1096KWH-250
<b>DC Data</b>		
Cell type	Samsung SDI Mega E2, 3.68V/94Ah	Samsung SDI Mega E2, 3.68V/94Ah
Configuration of system	198S8P	2 x 198S8P
Battery capacity (BOL)	548 kWh	1096 kWh
Battery voltage range	633 ~ 822 V	633 ~ 822 V
BMS communication interfaces	RS485, Ethernet	RS485, Ethernet
BMS communication protocols	Modbus RTU, Modbus TCP	Modbus RTU, Modbus TCP
<b>AC Data</b>		
Nominal AC power	250 kVA	250 kVA
Max. AC power	258 kVA	258 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	480 V	480 V
Grid voltage range	424 ~ 508 V	424 ~ 508 V
Power factor	> 0.99 (at nominal power)	> 0.99 (at nominal power)
Power factor range at nominal power	1 leading ~ 1 lagging	1 leading ~ 1 lagging
Nominal grid frequency	60 Hz	60 Hz
Grid frequency range	59.3 - 60.5Hz	59.3 - 60.5Hz
Isolation method	Transformer	Transformer
Nominal output voltage of off grid	480 V	480 V
Max.THD of off grid output voltage	< 3 % (linear load)	< 3 % (linear load)
<b>General Data</b>		
Dimensions of PCS unit (W * H * D)	1,200 * 2,440 * 1,100 mm / 47.2" * 96.1" * 43.3"	1,200 * 2,440 * 1,100 mm / 47.2" * 96.1" * 43.3"
Dimensions of battery unit (W * H * D)	5,380 * 2,440 * 1,182 mm / 211.8" * 96.1" * 46.5"	2 * (5,380 * 2,440 * 1,182 mm / 211.8" * 96.1" * 46.5")
Weight of PCS unit	2.4 T / 5,291 lbs	2.4 T / 5,291 lbs
Weight of battery unit (with / without battery)	7.5 T / 3.8 T 16,535 lbs / 8,378 lbs	2 * (7.5 T / 3.8 T 16,535 lbs / 8,378 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	3,000 m / 9,842 ft	3,000 m / 9,842 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	Modbus RTU, Modbus TCP
Certificates	UL9540	UL9540