

# ST6710KWH(L)-3150UD-MV/ ST7454KWH(L)-3450UD-MV

Energy Storage System



## HIGH INTEGRATION

- Highly integrated energy storage system for easy transportation and O&M
- Advanced integration technology ensures optimal system performance and lower cost



## 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



## EFFICIENT AND FLEXIBLE

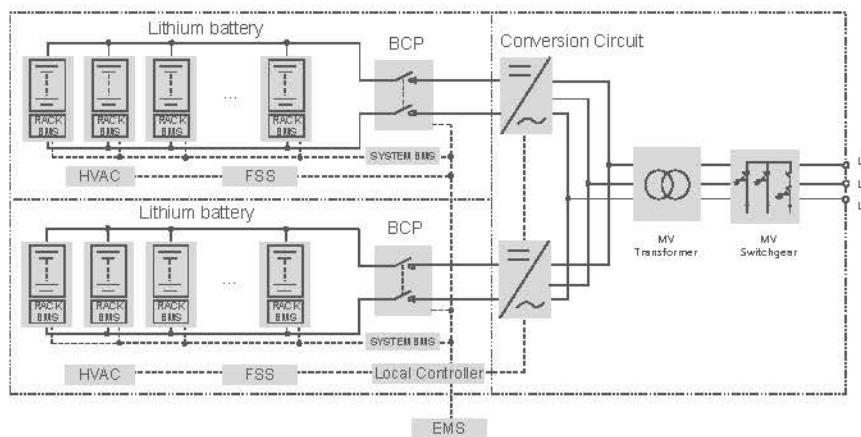
- Intelligent cell-level temperature control ensures higher efficiency and longer battery cycle life
- Modular design supports parallel connection and easy system expansion



## 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	ST6710KWH(L)-3150UD-MV	ST7454KWH(L)-3450UD-MV
<b>Battery Data</b>		
Cell type	LFP 280Ah	
Configuration of system	416S9P*2	416S10P*2 (Max. 416S12P*2)
Battery capacity (BOL)	3,355 kWh*2	3,727 kWh*2 (Max. 4473kWh*2)
Battery voltage range	1,123.2 – 1,497.6 V	
BMS communication interfaces	RS485, Ethernet	
BMS communication protocols	Modbus RTU, Modbus TCP	
<b>AC Data</b>		
Nominal AC power	3,150 kVA	3,450 kVA
Max. THD of current	< 3 % (at nominal power)	
DC component	< 0.5 % (at nominal power)	
Grid voltage range	10 – 35 kV	
Power factor	> 0.99 (at nominal power)	
Adjustable power factor	1.0 leading – 1.0 lagging	
Nominal grid frequency	50 / 60 Hz	
Grid frequency range	45 – 55 Hz / 55 – 65 Hz	
Isolation method	Transformer	
<b>Transformer</b>		
Transformer rated power	3,150 kVA	3,450 kVA
LV/MV voltage	0.63 kV / 10 – 35 kV	0.69 kV / 10 – 35 kV
Transformer vector	Dy11	
Transformer cooling type	ONAN (Oil Natural Air Natural)	
Oil type	Mineral oil (PCB free) or degradable oil on request	
<b>General Data</b>		
Dimensions of PCS unit (W * H * D)	6,058 * 2,896 * 2,438 mm / 238.5" * 114.0" * 96.0"	
Dimensions of battery unit (W * H * D)	2* (12,192 * 2,896 * 2,438 mm / 480.0" * 114.0" * 96.0")	
Weight of PCS unit (with MV transformer)	16.0 T / 35274 lbs	
Weight of battery unit (with / without battery)	2* (42.5T 93,696.5 lbs / 15.5 T 34,171.7 lbs)      2* (45.5T 100,310.3 lbs / 15.5 T 34,171.7 lbs)	
Degree of protection	IP54	
Operating temperature range	-30 to 50 °C / -22 to 122 °F (> 45 °C / 113 °F derating)	
Relative humidity	0 – 95 % (non-condensing)	
Max. working altitude	1,000 m (standard) > 1,000 m (optional)	
Cooling concept of battery chamber	Heating, Ventilation and Air Conditioning	
Cooling concept of PCS chamber	Temperature controlled forced air cooling	
Fire suppression system of battery unit	Novec1230 extinguishment system	
Communication interfaces	RS485, Ethernet	
Compliance	CE, IEC 62477-1, IEC 61000-6-2, IEC61000-6-4, IEC62619	