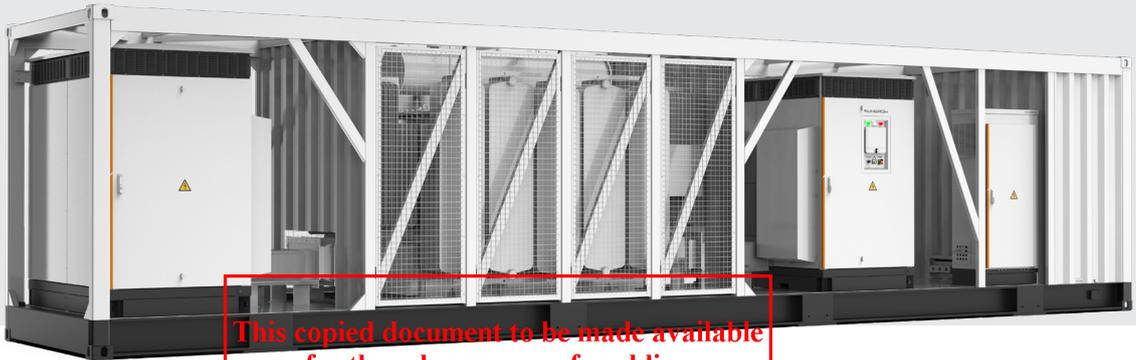


SG4950HV-MV

Turnkey Station for 1500 Vdc System MV Transformer Integrated



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HIGH YIELD

- Advanced three-level technology, max. inverter efficiency 99%
- Effective cooling, full power operation at 50 °C



SMART

- Integrated zone monitoring and MV parameters monitoring function for online analysis and trouble shooting
- Modular design, easy for maintenance
- Convenient external touch screen



SAVED INVESTMENT

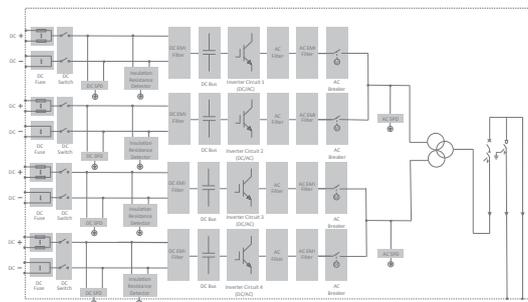
- Low transportation and installation cost due to 40-foot container design
- DC 1500V system, low system cost
- Integrated MV transformer, switchgear, and LV auxiliary power supply
- Q at night function optional



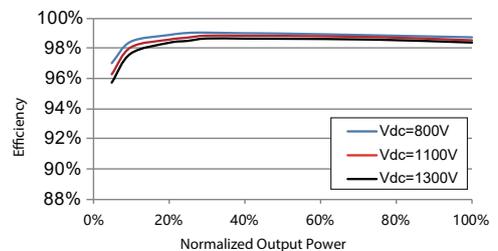
GRID SUPPORT

- Compliance with standards: IEC 62271-202, IEC 62271-200, IEC 60076
- Low/High voltage ride through (L/HVRT)
- Active & reactive power control and power ramp rate control

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG4950HV-MV
Input (DC)	
Max. PV input voltage	1500 V
Min. PV input voltage / Startup input voltage	800 V / 840 V
MPP voltage range	800 – 1300 V
No. of independent MPP inputs	4
No. of DC inputs	32 / 36 / 44 / 48 / 56 (Max. 48 for floating system)
Max. PV input current	2 * 3508 A
Max. DC short-circuit current	2 * 10000 A
PV array configuration	Negative grounding or floating
Output (AC)	
AC output power	4950 kVA @ 50 °C
Max. inverter output current	2 * 2887 A
Max. AC output current	143 A
AC voltage range	20 kV – 35 kV
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
Harmonic (THD)	< 3 % (at nominal power)
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / AC connection	3 / 3-PE
Efficiency	
Inverter max. efficiency	99.0%
Inverter European efficiency	98.7%
Transformer	
Transformer rated power	4950 kVA
Transformer max. power	4950 kVA
LV / MV voltage	0.55 kV / 0.55 kV / (20 – 35) kV
Transformer vector	Dy11y11
Transformer cooling type	ONAN (Oil-natural, air-natural)
Oil type	Mineral oil (PCB free) or degradable oil on request
Protection & Function	
DC input protection	DC break switch + fuse
Inverter output protection	Circuit breaker
AC MV output protection	Circuit breaker
Surge protection	DC Type I + II / AC Type II
Grid monitoring / Ground fault monitoring	Yes / Yes
Insulation monitoring	Yes
Overheat protection	Yes
Q at night function	Optional
General Data	
Dimensions (W*H*D)	12192*2896*2438 mm
Weight	27 T
Degree of protection	Inverter: IP65 / Others: IP54
Auxiliary power supply	5 kVA (optional: max. 40 kVA)
Operating ambient temperature range	-35 to 60 °C (> 50 °C derating)
Allowable relative humidity range	0 – 100 %
Cooling method	Temperature controlled forced air cooling
Max. operating altitude	1000 m (standard) / > 1000 m (optional)
Display	Touch screen
Communication	Standard: RS485, Ethernet; Optional: optical fiber
Compliance	CE, IEC 62109, IEC 61727, IEC 62116, IEC 62271-202, IEC 62271-200, IEC 60076
Grid support	Q at night (Optional), L/HVRT, active & reactive power control and power ramp rate control

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**ADVERTISED
PLAN**



ST2752UX-AU

Liquid Cooling Energy Storage System



ADVERTISED PLAN



LOW COSTS

- Highly integrated ESS for easy transportation and O&M
- All pre-assembled, no battery module handling on site
- 8 hour installation to commission, drop on a pad and make electrical connections



SAFE AND RELIABLE

- Integrated DC/DC converters actively limit fault current
- DC electric circuit safety management includes fast breaking and anti-arc protection
- Multi level battery protection layers formed by discreet standalone systems offer impeccable safety



EFFICIENT AND FLEXIBLE

- Intelligent liquid cooling ensures higher efficiency and longer battery cycle life
- Modular design supports parallel connection and easy system expansion
- IP54 outdoor cabinet and optional C5 anti-corrosion



SMART AND ROBUST

- Fast state monitoring and faults record enables pre-alarm and faults location
- Integrated battery performance monitoring and logging

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Type designation	ST2752UX-AU
Battery Data	
Cell type	LFP
Battery capacity (BOL)	2752 kWh
System output voltage range	1036.8 ~ 1401.6 V
General Data	
Dimensions of battery unit (W * H * D)	9340*2600*1730 mm
Weight of battery unit	26,400 kg
Degree of protection	IP54
Operating temperature range	-30 to 50 °C (> 45 °C derating)
Relative humidity	0 ~ 95 % (non-condensing)
Max. working altitude	3000 m
Cooling concept of battery chamber	Liquid cooling
Fire safety standard / Optional	Fused sprinkler heads, NFPA 69 explosion prevention and ventilation IDLH gases
Communication interfaces	RS485, Ethernet
Communication protocols	Modbus RTU, Modbus TCP
Compliance	CE, IEC 62477-1, IEC 61000-6-2, IEC61000-6-4, IEC62619
2 HOURS APPLICATION-ST2752UX*4-6900UD-MV	
BOL kWh (DC LV Side)	11,008 kWh DC
ST2752UX Quantity	4
PCS Model	SC6900UD-MV
4 HOURS APPLICATION-ST2752UX*8-6900UD-MV	
BOL kWh (DC)	22,016 kWh DC
ST2752UX Quantity	8
PCS Model	SC6900UD-MV
Grid Connection Data	
Max.THD of current	< 3 % (at nominal power)
DC component	< 0.5 % (at nominal power)
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
Transformer	
Transformer rated power	6,900 kVA
LV / MV voltage	0.69 kV / 20 ~ 35 kV (Dy11y11)
Transformer cooling type	ONAN (Oil Natural Air Natural)
Oil type	Mineral oil (PCB free) or degradable oil on request

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PLAN**

