

# SG3150U New

Turnkey Station for North America 1500 Vdc System



### High Yield

- Advanced three-level technology, max. efficiency 98.8%, CEC efficiency 98.5 %
- Max. DC/AC ratio more than 1.5



### Easy O&M

- Integrated current and voltage monitoring function for online analysis and fast trouble shooting
- Modular design, easy for maintenance
- Convenient external LCD



### Saved Investment

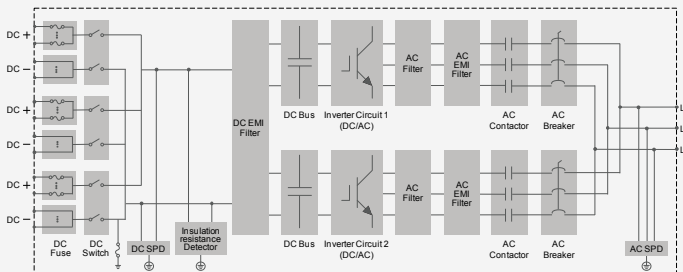
- Low transportation and installation cost due to 10-foot container design
- 1500V DC system, low system cost
- Integrated LV auxiliary power supply



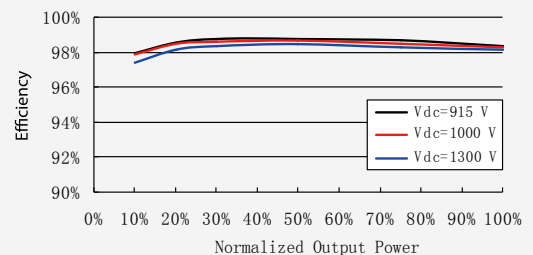
### Grid Support

- Complies with UL 1741, UL 1741 SA, IEEE 1547, Rule 21 and NEC 2014/2017
- Grid support including L/HVRT, L/HFRT, power ramp rate control, active and reactive power support

### Circuit Diagram



### Efficiency Curve



**Input (DC)****SG3150U**

Max. PV input voltage	1500V
Min. PV input voltage / Startup input voltage	915 V / 955 V
MPP voltage range	915 – 1300 V
No. of independent MPP inputs	1
No. of DC inputs	18 – 24
Max. PV input current	3420 A
Max. DC short-circuit current	4800 A

**Output (AC)**

AC output power	3150 kVA @ 45 °C (113 °F)
Max. AC output current	2886 A
Nominal AC voltage	630 V
AC voltage range	554 - 690 V
Nominal grid frequency / Grid frequency range	60 Hz / 55 – 65 Hz
<b>THD</b>	<b>&lt; 3 % (at nominal power)</b>
DC current injection	< 0.5 % of nominal output current
Power factor at nominal power / Adjustable power factor	<b>&gt; 0.99 / 0.8 leading – 0.8 lagging</b>
Feed-in phases / Connection phases	3 / 3

**Efficiency**

Max. efficiency / CEC efficiency	98.8 % / 98.5 %
----------------------------------	-----------------

**Protection**

DC input protection	Load break switch + fuse
AC output protection	Circuit breaker
Overvoltage protection	DC Type II / AC Type II
Grid monitoring / Ground fault monitoring	Yes / Yes
Insulation monitoring	Optional
Night SVG function	Optional
Overheat protection	Yes

**General Data**

Dimensions (W*H*D)	2991*2591*2438 mm ( <b>117.8"*102.0"*96.0"</b> )
Weight	6.9 T ( <b>15211.9 lbs</b> )
Isolation method	Transformerless
Degree of protection	NEMA 3R
Auxiliary power supply	120 Vac, 5 kVA / Optional: 480 Vac, 30 kVA
Operating ambient temperature range	-30 to 60 °C (> 45 °C derating) ( <b>-22 to 140 °F (&gt; 113 °F derating)</b> )
Allowable relative humidity range (non-condensing)	0 – 95 %
Cooling method	Temperature controlled forced air cooling
Max. operating altitude	4000 m (> 2000 m derating) ( <b>13123 ft (&gt; 6561 ft derating)</b> )
Display	Touch screen
Communication	Standard: RS485, Ethernet; Optional: optical fiber
Compliance	UL 1741, IEEE 1547, UL1741 SA, NEC 2014/2017, CSA C22.2 No.107.1-01
Grid support	<b>L/HVRT, L/HFRT</b> , active & reactive power control and power ramp rate control, Volt-var, Frequency-watt



# ST2752UX-US

Liquid Cooling Energy Storage System  
2 - 8 hour application

Preliminary



## 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



Type designation	ST2752UX-US
<b>Battery Data</b>	
Cell type	LFP
Battery capacity (BOL)	2752 kWh
Battery voltage range	1160 ~ 1500 V
<b>General Data</b>	
Dimensions of battery unit (W * H * D)	9340*2600*1730mm
Weight of battery unit	26,400kg
Degree of protection	IP 54/Type 3R
Operating temperature range	-30 to 50 °C (> 45 °C derating)
Relative humidity	0 ~ 95 % (non-condensing)
Max. working altitude	3000m
Cooling concept of battery chamber	Liquid cooling
Fire safety	Fused sprinkler heads, NFPA 69 explosion prevention and ventilation IDLH gases
Communication interfaces	RS485, Ethernet
Communication protocols	Modbus RTU, Modbus TCP
Compliance	UL 9540, UL 9540A/NFPA 855
<b>2 HOURS APPLICATION-ST2752UX*4-5000UD-MV-US</b>	
BOL kWh(DC/AC LV Side)	11,008kWh DC/10,379kWh AC
ST2752UX Quantity	4
PCS Model	SC5000UD-MV-US
<b>4 HOURS APPLICATION-ST2752UX*8-5000UD-MV-US</b>	
BOL kWh(DC/AC LV Side)	22,016kWh/21,448kWh
ST2752UX Quantity	8
PCS Model	SC5000UD-MV-US
<b>Grid Connection Data</b>	
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	60 Hz
Grid frequency range	55 ~ 65 Hz
<b>Transformer</b>	
Transformer rated power	5,000 kVA
LV/MV voltage	0.9 kV / 34.5 kV
Transformer cooling type	ONAN (Oil Natural Air Natural)
Oil type	Mineral oil (PCB free) or degradable oil on request