

# SC2500U

## Power Conversion System



### HIGH YIELD

- Advanced three-level technology,max. efficiency 98.8%
- Effective forced air cooling,no derating up to 50°C (122 °F)
- Wide DC voltage operation window, full power operation at 1500V
- Support two independent DC inputs

### EASY O&M

- Integrated current and voltage monitoring function for online analysis and fast trouble shooting
- Low transportation and installation cost due to 10-foot container design
- Modular design and all components front accessible, easy for maintenance
- Integrated auxiliary power supply panels for external devices

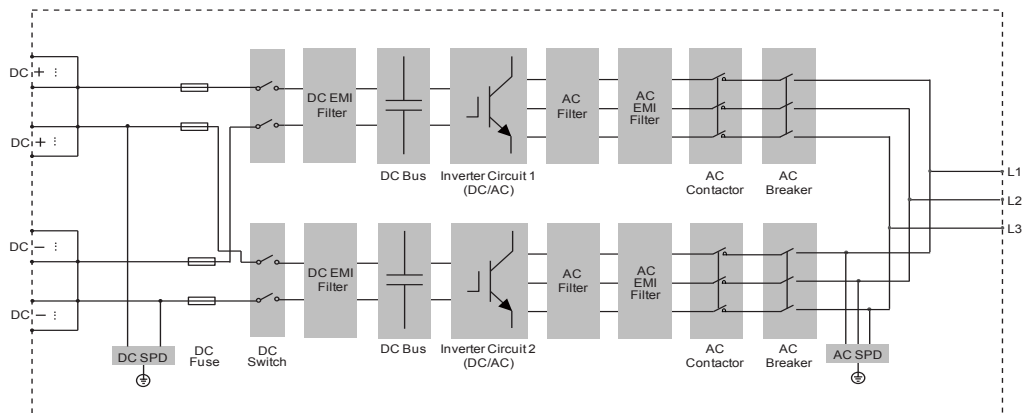
### ESS APPLICATIONS

- Typical applications: peak shaving, energy shifting,frequency regulation, capacity firming
- Compatible with high voltage battery system, low system cost
- Bidirectional power conversion system with full four-quadrant operation
- Battery charge & dis-charge management and black start function integrated

### GRID SUPPORT

- Compliant with UL1741, UL1741 SA, IEEE1547, California Rule 21
- Dynamic grid voltage and frequency support L/HVRT, L/HFRT, soft start/stop, specified power factor control and reactive power support

## CIRCUIT DIAGRAM



System Type	SC2500U
<b>DC side</b>	
Max. DC voltage	1500 V
Min. DC voltage	800 V
DC voltage range for nominal power	800 – 1500 V
Max. DC current	3508 A
Max. DC power	2806 kW
No. of DC inputs	1 or 2 optional
<b>AC side (Grid)</b>	
Nominal AC power(at 50 °C)	2500 kVA
Max. AC power at PF = 1 (at 45 °C)	2750 kVA
Max. AC current	2886 A
Nominal AC voltage	550 V
AC voltage range	484 - 605V
Nominal grid frequency / Grid frequency range	60 Hz / 55 - 65 Hz
Max.THd of current	< 3 % (at nominal power)
DC current injection	< 0.5 % In
Power factor at nominal power / Adjustable power factor	>0.99 / 1 leading - 1 lagging
Adjustable Reactive power	[-100%~100%]
Feed-in phases / Connection phases	3 / 3
<b>AC side (Off-Grid)</b>	
Nominal AC voltage	550 V
AC voltage range	484 - 605 V
AC voltage THD	< 3 % (Linear load)
DC voltage component	< 0.5 % Un (Linear balance load)
Unbalance load Capacity	100%
Nominal Voltage frequency / Voltage frequency range	60 Hz / 55 - 65 Hz
<b>Efficiency</b>	
Max. efficiency / CEC efficiency	98.8 % / 98.5 %
<b>Protection</b>	
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	Yes
Overheat protection	Yes
<b>General Data</b>	
Dimensions (W*H*D)	2991*2591*2438 mm 117.8"*102"*96.0"
Weight	6 T 13227.8 lb
Isolation	Transformerless
Degree of protection	Type 3R
Auxiliary power supply	220 Vac, 2 kVA / 110 Vac, 2.2kVA / Optional: 480 Vac,30 kVA
Operating ambient temperature range	-30 to 60 °C (> 50 °C derating) (-22 to 140 °F (> 122 °F derating))
Allowable relative humidity range	0 – 95 % (non-condensing)
Cooling method	Temperature controlled forced air cooling
Max. operating altitude	4000 m (> 2000 m derating) (13123 ft (> 6561 ft derating))
Display	Touch screen
Communication	Standard: RS485, CAN, Ethernet; Optional: optical fiber
Compliance	UL 1741,IEEE 1547, UL 1741SA,
Grid support	L/HVRT, L/HFRT, active & reactive power control and power ramp rate control