

# SC2000UD

Power Conversion System



## HIGH YIELD

- Advanced three-level technology, max. efficiency 99%
- Effective forced air cooling, no derating up to 45°C
- Wide DC voltage operation window, full power operation at 1500 V



## SMART O&M

- Modular design, easy for maintenance
- IP65 protection degree, easy for outdoor installation
- C5 anti-corrosion degree, adjust to applications close to the sea



## FLEXIBLE APPLICATION

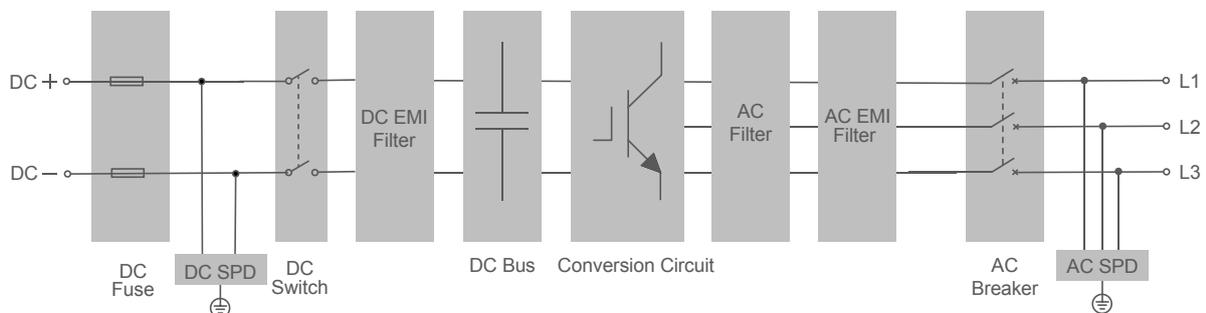
- Bidirectional power conversion system with full four-quadrant operation
- Compatible with high voltage battery system, low system cost
- Battery charge & dis-charge management and black start function integrated



## GRID SUPPORT

- Compliant with CE, IEC 62477, IEC 61000 and grid regulations
- Fast active/reactive power response
- L/HVRT, FRT, soft start/stop, specified power factor control and reactive power support

## CIRCUIT DIAGRAM



Type Designation	SC2000UD
<b>DC side</b>	
Max. DC voltage	1500 V
Min. DC voltage	1150 V
DC voltage range	1150 – 1500 V
Max. DC current	1952 A
No. of DC inputs	1
<b>AC side (Grid)</b>	
AC output power	2000 kVA @ 45 °C / 2200 kVA @ 30 °C
Max. AC output current	1443 A @ 45 °C / 1587 A @ 30 °C
Nominal AC voltage	800 V
AC voltage range	704 – 880 V
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 / 1 leading – 1 lagging
Adjustable reactive power range	-100 % – 100 %
Feed-in phases / AC connection	3 / 3
<b>AC side (Off-Grid)</b>	
Nominal AC voltage	800 V
AC voltage range	704 – 880 V
AC voltage Distortion	< 3 % (Linear load)
DC voltage component	< 0.5 % Un (Linear balance load)
Unbalance load Capacity	100 %
Nominal frequency / Frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
<b>Efficiency</b>	
Max. efficiency / European efficiency	99 % / 98.5 %
<b>Protection</b>	
DC input protection	Load break switch + fuse
AC output protection	Circuit breaker
Surge 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)	1080*2400*1400 mm
Weight	1500 kg
Topology	Transformerless
Degree of protection	IP65
Operating ambient temperature range	-35 to 60 °C (> 45 °C derating)
Allowable relative humidity range	0 – 100 %
Cooling method	Temperature controlled forced air cooling
Max. operating altitude	4000 m (> 2000 m derating)
Display	LED, WEB HMI
Communication	RS485, CAN, Ethernet
Compliance	CE, IEC 62477-1, IEC 61000-6-2, IEC 61000-6-4
Grid support	L/HVRT, FRT, active & reactive power control and power ramp rate control, Volt-var, Volt-watt, Frequency-watt

