

SC60HV

Power Conversion System



HIGH YIELD

- Advanced three-level technology, max. efficiency 98.6%
- Effective forced air cooling, 1.1 overload capacity, no derating up to 122 °F
- Wide DC voltage operation window, flexible for battery configuration

EASY O&M

- Compact design and light weight for easy installation
- Easy site commissioning & monitoring via APP
- Scalable system configuration, extend to MW power range

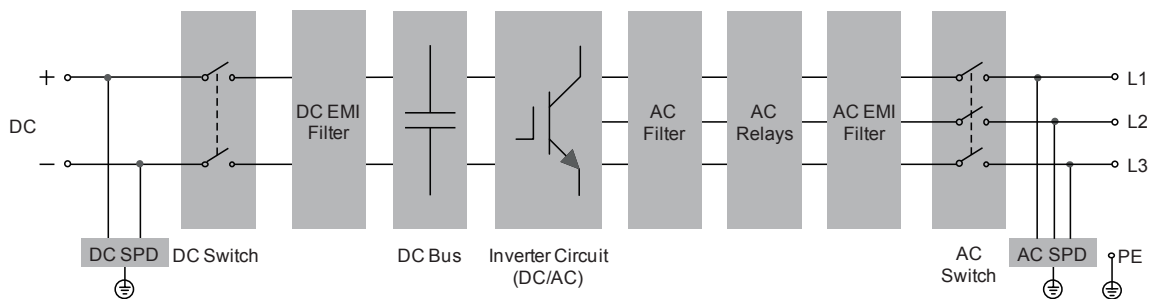
ESS APPLICATIONS

- Battery charge & dis-charge management integrated
- Bidirectional power conversion system with full fourquadrant operation
- EPS function design, can support the electrical equipment when the power grid fails
- Compatible with high voltage battery system, low system cost

GRID SUPPORT

- Complies with UL 1741, UL 1741 SA
- Grid support including L / HVRT, soft start / stop, specified power factor control and reactive power support

CIRCUIT DIAGRAM



System Type	SC60HV
DC side	
Max. DC voltage	1500 V
Min. DC voltage	700 V
DC voltage range for nominal power	700 – 1300 V @50 °C (122 °F) / 700 – 1500 V@35 °C (95 °F)
Max. DC current	96.6 A
Max. DC power	67.5 kW
AC side (Grid)	
AC output power	66 kVA @ 45 °C (113 °F) / 60 kVA @ 50 °C (122 °F)
Max. AC current	79.3 A
Nominal AC voltage	480 V
AC voltage range	422.4 – 528 V
Nominal grid frequency / Grid frequency range	60 Hz / 55 – 65 Hz
AC current THD	< 3 % (at nominal power)
DC current injection	< 0.5 % I _n
Power factor at nominal power	> 0.99
Adjustable reactive power	-100% – 100%
AC side (Off-Grid)	
Nominal AC voltage	480 V ± 3 %
AC voltage THD	< 3 % (Linear load)
Nominal voltage frequency / Voltage frequency range	60 Hz / 55 – 65 Hz
AC output power	66 kVA @ 45 °C (113 °F) / 60 kVA @ 50 °C (122 °F)
Efficiency	
Max. charge efficiency	98.5%
Max. discharge efficiency	98.6%
Protection	
Reverse polarity protection	Yes
DC switch	Yes
AC switch	Yes
Overvoltage protection	DC Type II / AC Type II
Grid monitoring / Ground fault monitoring	Yes / Yes
Insulation monitoring	Yes
Overheat protection	Yes
General Data	
Dimensions (W*H*D)	600*800*278 mm (23.6"*31.5"*11.0")
Weight	75 kg (165.3 lbs)
Isolation	Transformerless
Degree of protection	NEMA 4X
Operating ambient temperature range	-25 to 60 °C (> 50 °C derating) (-13 to 140 °F (> 122 °F derating))
Allowable relative humidity range (non-condensing)	0 – 100 %
Cooling method	Temperature controlled forced air cooling
Max. operating altitude	4000 m (> 3000 m derating) (13123 ft (> 9843 ft derating))
Display	LED, Bluetooth + APP
Self-consumption at stop	< 20 W
Communication	RS485 / Ethernet / CAN
Communication protocol	Modbus-RTU / Modbus-TCP, CAN2.0B
Compliance	UL 1741, UL 1741 SA, Rule 21
Grid support	L / HVRT, active & reactive power control and power ramp rate control
Type designation	SC60HV-10