

SC2750/3150/3450UD-MV-US

MV Power Converter Multi application



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 1500V



SMART O&M

- Modular design, easy for maintenance
- High protection degree, easy for outdoor installation
- Optional 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 UL1741, IEEE1547, UL1741 SA/SB, Rule 21 and HECO 14H
- Fast active/reactive power response
- L/HVRT, FRT, soft start/stop, specified power factor control and reactive power support



System Type	SC2750UD-MV-US	SC3150UD-MV-US	SC3450UD-MV-US
DC side			
Max. DC voltage	1500 V		
Min. DC voltage	800 V	915 V	1000 V
DC voltage range	800 V ~ 1500 V	915 V ~ 1500 V	1000 V ~ 1500 V
Max. DC current	1760 A * 2		
No. of DC inputs	2		
AC side (Grid)			
AC output power	2750 kVA @ 45 °C (113 °F)	3150 kVA @ 45 °C (113 °F)	3450 kVA @ 45 °C (113 °F)
Max. AC output current	46 A	52 A	57 A
Nominal LV / MV voltage	0.55 kV / 34.5 kV	0.63 kV / 34.5 kV	0.69 kV / 34.5 kV
Nominal grid frequency/Grid frequency range	60 Hz / 55 Hz ~ 65 Hz		
Harmonic (THD)	< 3 % (at nominal power)		
Power factor at nominal power/Adjustable power factor	> 0.99 / 1 leading ~ 1 lagging		
AC side (Off-Grid)			
Nominal LV/MV voltage	0.55 kV / 34.5 kV	0.63 kV / 34.5 kV	0.69 kV / 34.5 kV
AC voltage distortion	< 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 Hz ~ 65 Hz		
Efficiency			
Max.Converter unit efficiency	99.0 %		
Max.efficiency(including transformer)	98.3 %		
Protection			
DC protection	DC Load switch + fuse		
AC protection	MV Load switch + fuse		
Surge 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)	6058 mm * 2896 mm * 2438 mm 238.5" * 114.0" * 96.0"		
Weight	16000 kg / 35274 lbs		
Transformer vector	Dy1 or Dy11		
Degree of protection	TYPE 3R		
Operating ambient temperature range	-35 °C ~ 60 °C (> 45°C derating) -31 °F ~ 140 °F (> 113°F derating)		
Allowable relative humidity range	0 % ~ 100 %		
Cooling method	Forced air cooling + KNAN		
Max. operating altitude	1000m (standard) / > 1000 m (optional) 3280.8 ft (standard) / > 3280.8 ft (optional)		
Display	LED, WEB HMI		
Communication	RS485, CAN, Ethernet, Optical Fiber		
Compliance	UL1741, UL1741 SA/SB, IEEE 1547:2018, Rule 21, HECO 14H, CSA C22.2 No.107.1-16		
Grid support	L/HVRT, FRT, active & reactive power control and power ramp rate control, Volt-var, Volt-watt, Frequency-watt		

CIRCUIT DIAGRAM

