SC2750/3150/3450UD-MV-US

Power Conversion System
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 1500 V

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

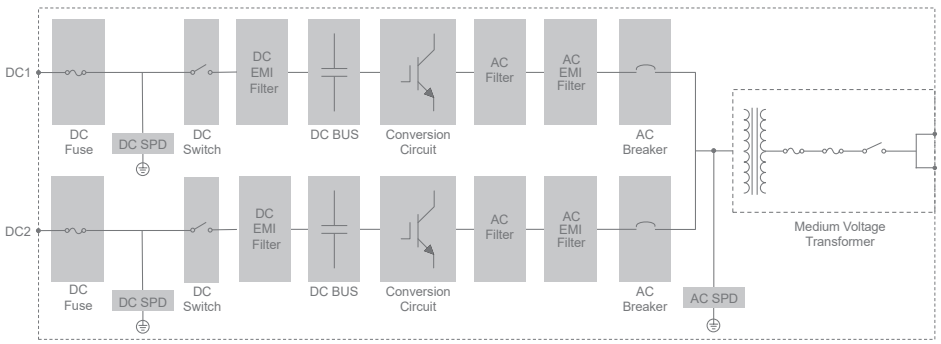
FLEXIBLE APPLICATION

- 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 UL 1741, IEEE 1547, UL 1741 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

CIRCUIT DIAGRAM



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SUNGROW
Clean power for all

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 – 1500 V	915 – 1500 V	1000 – 1500 V
Max. DC current		1760 A * 2	
No. of DC inputs		2	
AC Side (Grid)			
AC output power	2750 kVA @ 45 ℃ (113 °F)	3150 kVA @ 45 ℃ (113 °F)	3450 kVA @ 45 ℃ (113 °F)
Converter port max. AC output current		1443A*2	
Converter port nominal AC voltage	550 V	630 V	690 V
Converter port AC voltage range	484 – 605 V	554 – 693 V	607 – 759 V
Nominal grid frequency / Grid frequency range		60Hz / 55~65Hz	
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	
AC Side (Off-Grid)			
Converter port nominal AC voltage	550V	630 V	690 V
Converter port AC voltage range	484 ~ 605V	554 – 693 V	607 – 759 V
AC voltage Distortion		< 3 % (Linear load)	
DC voltage component		< 0.5 % Un (Linear balance load)	
Unbalance load Capacity		100%	
Nominal frequency / Frequency range		60 Hz / 55 – 65 Hz	
Efficiency			
IConverter max. efficiency		99 %	
Transformer			
Transformer rated power	2750 kVA	3150 kVA	3450 kVA
Transformer max. power	2750 kVA	3150 kVA	3450 kVA
LV / MV voltage	0.55 kV / (12 – 34.5) kV	0.63 kV / (12 – 34.5) kV	0.69 kV / (12 – 34.5) kV
Transformer vector		Dy1 or Dy11	
Transformer cooling type		ONAN (optional: KNAN)	
Oil type		Mineral oil(PCB free) or degradable oil on request	
Protection			
DC input protection		Load break switch + fuse	
Converter output protection		Circuit breaker	
AC output protection		Load break 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*2896*2438mm 238.5''*114.0''*96.0''	
Weight		16000kg 35274 lbs	
Degree of protection		TYPE 3R	
Operating ambient temperature range		-35 ~ 60℃ (> 45℃ derating) -31 ~ 140℉ (> 113℉ derating)	
Allowable relative humidity range		0 ~ 100%	
Cooling method		Temperature controlled forced air cooling	
Max. operating altitude		1000m (standard) / > 1000m (optional) 3280.8 ft (standard) / > 3280.8 ft (optional)	
Display		LED, WEB HMI	
Communication		RS485, CAN, Ethernet	
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	

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