

# SG150CX

Multi-MPPT String Inverter for 1000 Vdc System



## HIGH YIELD

- Higher current input, adaptable to all PV modules for more design flexibility
- Global MPPT scanning, increasing generation yield by over 2%
- Intelligent PID recovery function

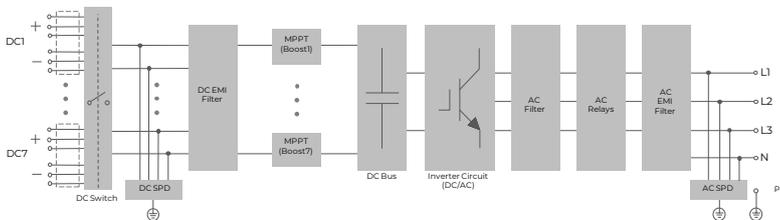
## SMART MANAGEMENT

- Air duct self-cleaning, reduced maintenance and increased O&M efficiency
- IP66 protection and C5 Anti-corrosion, suitable for various harsh environments
- High-precision string detection and I-V diagnosis, accurately locating abnormal strings

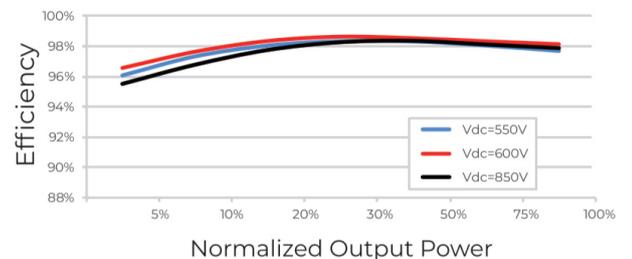
## SAFE AND DURABLE

- AFCI 3.0, intelligent DC arc interrupter, with a detection range of 450m
- Active fault identification, intelligent string-level protection switch, ensuring equipment safety

## CIRCUIT DIAGRAM



## EFFICIENCY CURVE



Type designation	SG150CX
<b>Input (DC)</b>	
Recommended max. PV input power	210 kWp
Max. PV input voltage *	1100 V
Min. PV input voltage / Startup input voltage	180 V / 200 V
Rated PV input voltage	600 V ( 380 V / 400 V / 415 V ); 720 V ( 480 V )
MPPT voltage range **	180 V - 1000 V
No. of independent MPP inputs	7
No. of PV strings per MPPT	3 / 3 / 3 / 3 / 3 / 3 / 3
Max. PV input current	336 A ( 48 A * 7 )
Max. DC short-circuit current	462 A ( 66 A * 7 )
Max. current for DC connector	30 A
<b>Output (AC)</b>	
Rated AC output power	150 kW
Max. AC output apparent power	165 kVA
Max. AC output current	250.7 A @ 380 Vac 240.6 A @ 400 Vac / 415 Vac 200.5 A @ 480 Vac
Rated AC output current	227.9 A @ 380 Vac 216.5 A @ 400 Vac / 415 Vac 180.4 A @ 480 Vac
Rated AC voltage	3 / N / PE, 220 V / 380 V, 230 V / 400 V , 240 V / 415 V , 277 V / 480 V
AC voltage range	320 V - 480 V ( 380 V / 400 V / 415 V ) 380 V - 552 V ( 480 V )
Rated grid frequency	50 Hz / 60 Hz
Grid frequency range	45 Hz – 55 Hz / 55 Hz – 65 Hz
Harmonic ( THD )	≤ 1 % ( at 400V AC voltage and rated power )
Power factor at rated power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / AC connection	3 / 3-N-PE
<b>Efficiency</b>	
Max. efficiency / European efficiency	98.8 % / 98.2 % ( 380 V / 400 V / 415 V ) 98.4 % ( 480 V )
<b>Protection &amp; function</b>	
Grid monitoring	Yes
DC reverse polarity protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
Surge protection	DC Type I+II / AC Type II
Ground fault monitoring	Yes
DC switch	Yes
PV string current monitoring	Yes
Intelligent DC arc interrupter	Yes
Arc fault circuit interrupter (AFCI)	Yes
PID recovery function	Yes
<b>General data</b>	
Dimensions ( W * H * D )	1025 mm * 795 mm * 360 mm
Weight	≤ 100 kg
Mounting method	Wall-mounting bracket
Topology	Transformerless
Degree of protection	IP66
Night power consumption	≤ 7 W
Corrosion	C5
Operating ambient temperature range	-30 °C - 60 °C
Allowable relative humidity range (non-condensing)	0 % - 100 %
Cooling method	Smart forced air cooling
Max. operating altitude	4000 m
Display	LED, Bluetooth+APP
Communication	RS485 / WLAN ( optional ) / Ethernet ( optional )
DC connection type	Evo2 ( Max. 6 mm <sup>2</sup> )
AC connection type	OT / DT terminal ( 120 mm <sup>2</sup> - 400 mm <sup>2</sup> )
AC cable specification	Outside diameter 18 mm - 38 mm
Grid compliance	IEC EN 62109-1/-2; IEC 60529; IEC 61000-6-1/-2/-3/-4; EN55011; CISPR 11; IEC 63027; EN 50549-1-10/-2-10; IEC 61727; IEC 62116; IEC 61683; EN 50530; IEC 60068-1/-2/-14/-27/-30/-64; IEC/EN 61000-3-11/12; IEC 62920; VDE4110; VDE4120; PSE 2018; NC RFC; TOR Erzeuger Typ A; TOR Erzeuger Typ B; OVE-Richtlinie R25/03.20; G99; CEI 0-16; CEI 0-21; VDE0126; NTS UNE217001/217002; NTS 631; IEC60947.2; PEA; MEA; IEC 62910; DEWA; NRS 097; IRR-DCC-MV
Grid support	Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control

\* Input voltage exceeding the MPPT operating voltage range triggers inverter protection.

\*\* Please refer to the user manual for the full load MPPT voltage range.