

SG40CX-P2

Multi-MPPT String Inverter for 1000 Vdc System



HIGH YIELD

- DC 30 A current input, compatible with over 500Wp+ PV module
- Dynamic shading optimization mode
- Built-in PID recovery function

SMART O&M

- Key component diagnosis and protection
- Smart IV Curve Diagnosis
- Grid fault record function, easy for remote O&M

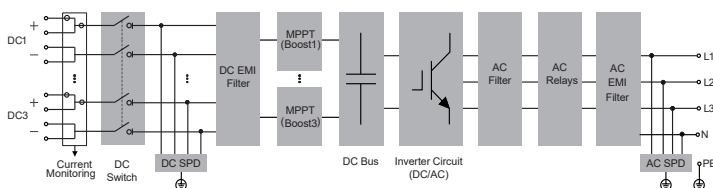
LOWER INVESTMENT

- Easy to handle thanks to 34% weight reduced
- Plug and Play with Buckle Design

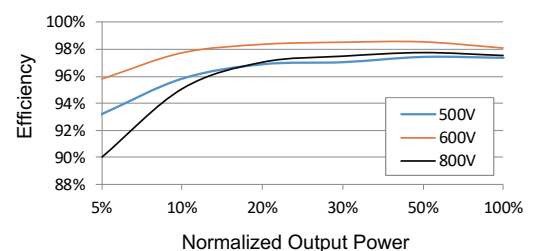
PROVEN SAFETY

- IP66 protection and C5 Anti-corrosion
- DC Type I+II SPD, AC Type II SPD
- Support AFCI 2.0 function

CIRCUIT DIAGRAM (SG30CX-P2)



EFFICIENCY CURVE (SG30CX-P2)



Type designation	SG40CX-P2 ²
Input (DC)	
Recommended max. PV input power	56 kWp
Max. PV input voltage	1100 V
Min. PV input voltage / Startup input voltage	160 V / 200 V
Rated PV input voltage	600 V
MPP voltage range	160 V - 1000 V
No. of independent MPP inputs	4
No. of PV strings per MPPT	2
Max. PV input current	120 A (30 A * 4)
Max. DC short-circuit current	160 A (40 A * 4)
Max. current for DC connector	40A
Output (AC)	
Rated AC output power	40 kVA
Max. AC output apparent power	44 kVA ¹
Max. AC output current	66.9 A
Rated AC output current(at 230V)	58 A
Rated AC voltage	3 / N / PE, 220 / 380 V, 230 / 400 V
AC voltage range	312 - 480 V
Rated grid frequency	50 Hz / 60 Hz
Grid frequency range	45 - 55 Hz / 55 - 65 Hz
Harmonic (THD)	< 3% (at rated power)
Power factor at rated power / Adjustable power factor	> 0.99 / 0.8 leading - 0.8 lagging
Feed-in phases / connection phases	3 / 3-N-PE
Efficiency	
Max. efficiency / European efficiency	98.5% / 98.3%
Protection	
Grid monitoring	Yes
DC reverse connection 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
Arc fault circuit interrupter (AFCI)	Yes
PID recovery function	Yes
General Data	
Dimensions (W*H*D)	645*575*245 mm
Mounting Method	Wall-mounting bracket
Weight	40 kg
Topology	Transformerless
Degree of protection	IP66
Corrosion	C5
Night power consumption	< 5W
Operating ambient temperature range	-30 to 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 / Optional: WLAN, Ethernet
DC connection type	EVO2 (Max. 6 mm ²)
AC connection type	OT terminal (16~35 mm ²)
AC Cable specification	Outside diameter 18~38mm
Grid Compliance	IEC 62109, IEC 61727, IEC 62116, VDE-AR-N 4105:2018, VDE AR-N 4110, IEC 61000-6-3, EN 50549-1, EN50549-2, CEI 0-21 2019, CEI0-16 2019, VDE 0126-1-1/A1 VFR 2019, UTE C15-712-1:2013, UNE 206007-1/RD 1699, UNE 217002, C99
Grid Support	Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control

¹ 40 kVA respectively for Germany, Belgium, Austria, Ukraine and Denmark

² Product subjected to minimum quantity order, reach out Sungrow Sales office for more information

