

SG49K5J

Multi-MPPT String Inverter for Japan 1000 Vdc System



HIGH YIELD

- Max. efficiency 98.9 % European efficiency 98.5 %
- Full power operation without derating at 50 °C
- Up to 4 MPP trackers



EASY O&M

- Integrated IV curve scan function for fast trouble shooting*
- Plug-in design of fan and SPD, easy for on-site maintenance.



SAVED INVESTMENT

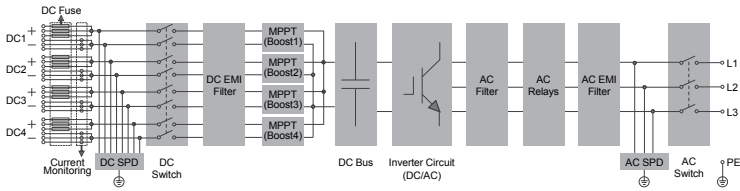
- Max. DC/AC ratio up to 1.5
- Capacity less than 50 kW plant only need one inverter
- Can be installed horizontally, saving installation cost



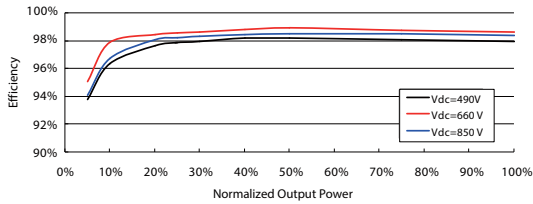
GRID SUPPORT

- Compliance with Japan utility grid standards
- Fault ride through (FRT) 2017
- Remote active power control

CIRCUIT DIAGRAM



EFFICIENCY CURVE



Type designation	SG49K5J
Input (DC)	
Max. PV input voltage	1000 V
Min. PV input voltage / Startup input voltage	200 V / 250 V
Nominal input voltage	660 V
MPP voltage range	200 – 950 V
MPP voltage range for nominal power	490 – 850 V
No. of independent MPP inputs	4
Max. number of PV strings per MPPT	3
Max. PV input current	112A (28 A / 28 A / 28 A / 28 A)
Max. current for input connector	12 A
Max. DC short-circuit current	140 A (35 A / 35 A / 35 A / 35 A)
Output (AC)	
AC output power	49.5 kVA @ 50 °C / 55 kVA @ 50 °C (settable)
Max. AC output current	80 A
Nominal AC voltage	3 / PE, 420 V / 440 V
AC voltage range	374 – 506 V
Nominal grid frequency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
THD	< 3 % (at nominal power)
DC current injection	< 0.5 % I _n
Power factor at nominal power / Adjustable power factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / Connection phases	3 / 3
Efficiency	
Max. efficiency	98.9 %
Euro. efficiency	98.5 %
Protection	
DC reverse connection protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
DC switch	Yes
AC switch	Yes
DC fuse	Yes (positive, 15A)
PV string current monitoring	Yes
Overvoltage protection	DC Type II / AC Type II
General Data	
Dimensions (W*H*D)	677*962*282.5 mm
Weight	70 kg
Isolation method	Transformerless
Degree of protection	IP65
Night power consumption	< 2 W
Operating ambient temperature range	-25 to 60 °C (> 50 °C derating)
Allowable relative humidity range (non-condensing)	0 – 100 %
Cooling method	Smart forced air cooling
Max. operating altitude	4000 m (> 3000 m derating)
Display / Communication	Graphic LCD / RS485
DC connection type	OT terminal (Max. 6 mm ²)
AC connection type	OT terminal (Max. 70 mm ²)
Grid support	FRT 2017, active & reactive power control and power ramp rate control
Type designation	SG49K5J

*: Only compatible with Sungrow logger and iSolarCloud

