

## SG33K3J

String Inverter For Japan



### High Yield

- Max. efficiency 98.5 %, European efficiency 98.3 %
- Full power operation without derating at 50 °C
- Up to 3 MPP trackers



### Easy O&M

- Integrated IV curve scan function for fast trouble shooting
- Compact design and light weight for easy installation
- Plug-in design of fan and SPD, easy for on-site maintenance



### Saved Investment

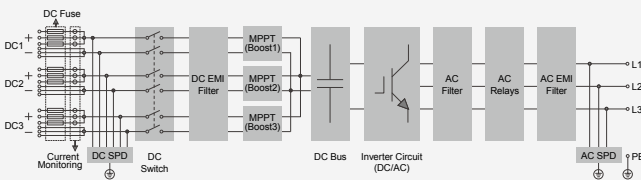
- Max. DC/AC ratio up to 1.8
- Can be installed horizontally, saving installation cost



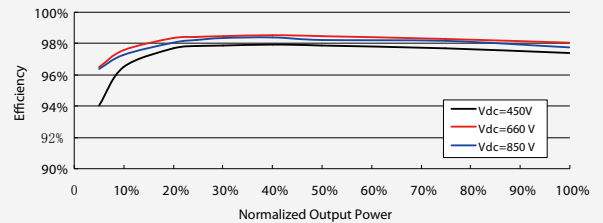
### Grid Support

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

### Circuit Diagram



### Efficiency Curve



**Input (DC)****SG33K3J**

Max. PV input voltage	1100 V
Min. PV input voltage / Startup input voltage	200 V / 250 V
Nominal input voltage	660 V
MPP voltage range	200 – 1000 V
MPP voltage range for nominal power	450 – 850 V
No. of independent MPP inputs	3
Max. number of PV strings per MPPT	3
Max. PV input current	99 A (33 A / 33 A / 33 A)
Max. current for input connector	12 A
Max. DC short-circuit current	108 A (36 A / 36 A / 36 A)

**Output (AC)**

AC output power	33300 VA @ 50 °C / 38900 VA @ 50 °C (settable)
Max. AC output current	53.5 A
Nominal AC voltage	3 / PE, 420 V / 440 V
AC voltage range	365 – 528 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 <sub>n</sub>
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 / Euro. efficiency	98.5 % / 98.3 %
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**Protection**

DC reverse connection protection	Yes
AC short-circuit protection	Yes
Leakage current protection	Yes
Grid monitoring	Yes
DC switch / AC switch	Yes / No
DC fuse	Yes (positive, 15A)
PV string current monitoring	Yes
Overvoltage protection	DC Type II / AC Type II

**General Data**

Dimensions (W*H*D)	525*740*240 mm
Weight	48 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	MC4 (Max. 6 mm <sup>2</sup> )
AC connection type	OT terminal (Max. 50 mm <sup>2</sup> )
Grid support	FRT 2017, active & reactive power control and power ramp rate control
Type designation	SG33K3J-10

