



Product Service

CERTIFICATE

No. B 10 07 73342 004

Holder of Certificate: Sungrow Power Supply Co., Ltd.

No. 2, Tianhu Road
 High and New Technology Development Zone
 230088 Hefei, Anhui
 PEOPLE'S REPUBLIC OF CHINA

Certification Mark:**Product:**

Converter
Grid-connected inverter

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.:

4842009043701

**Date,** 2010-07-09

(Qing Huang)

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Model(s): SG4KTL, SG3KTL**Parameters:**

Maximum rated d.c.
input voltage: DC 550V
PV input operating
voltage range: DC 150-450V
Maximum total PV
array short circuit
current: 20A(SG4KTL), 18A(SG3KTL)
Nominal a.c.
output voltage: AC 230V
Nominal a.c.
output frequency: 50Hz
Maximum continuous
a.c. output current: 18A(SG4KTL), 13A(SG3KTL)
Maximum continuous
a.c. output power: 4000W(SG4KTL), 3000W(SG3KTL)
Protection class: I
Degree of protection: IP54
For license conditions please see page 3 and 4.
SG4KTL: Basic model,
SG3KTL: Same as SG4KTL except for DC bus capacitors
and electrical rating differences.

**Tested
according to:**

EN 50178:1997
DIN EN 62109-1:2008
DIN EN 62109-2:2010
DIN V VDE V 0126-1-1 (VDE V 0126-1-1):2006

**Production
Facility(ies):**

73542

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License conditions:

1. When installing the equipment, all requirements of the mentioned standards must be fulfilled.

2. In order to protect the installation against electrical and fire hazard, all branch circuits in an installation, switch gear, cables etc., must be short-circuit and over-current protected according to the national/international regulations.

Abnormal and component failure tests were conducted with the AC output protected by external fuse (gG, rated current 20 A for SG4KTL, 16A for SG3KTL, rated voltage 250 VAC, 670A²s@230V AC) provided in all live connections to the AC supply.

The prospective short-circuit current of grid does not exceed 1 kA in a second providing that the mains cable of the inverter is protected with the above listed fuses or fuse which meets the ratings.

3.AC output cables: Cu, 2x2,5+2,5mm² 40⁰C ambient, with operating time of the fuse is less than 5 seconds, installation method B2 according to EN 60204-1:2006, annex D: cable in conduit cable trunking system, number of loaded circuit only one. Use H07RN-F (cord designation 60245 IEC 66) for an ambient temperature of 40 °C or less and use 90 °C wire for ambient temperature between 40 °C and 60 °C.

4.A type B RCD with a residual current setting of 30mA, located between the inverter and the mains, shall be provided for fault protection by automatic disconnection of supply in the end-use application.

5.Maximum inverter backfeed current to the array is 20A based on grid fuse provided in the end-use application. The direct current (DC) circuit breaker or fuse between each solar generator and inverter shall be provided based on solar inverter input ratings.

6. Serial – RS485 are used for telecommunication interface ports with circuitry intended for connection to a Network Environment 0 per manufacturer's instruction manual, according to CLC TR 62102.

RS 485 circuit is classed to be as SELV, Only PELV or SELV voltages may be connected at RS 485 terminals.

7. The grid-connected inverter is intended to be used with appropriate PV-generator, switchgear, SPDs, distribution board, electrical protection components and other device to form complete end systems. Compliance with safety regulations depends upon installing and configuring inverter correctly, including using the specified emergency stop device adjacent to solar inverter. The unit must be installed only by professional assemblers who are familiar with requirements for safety and EMC. The assembler is responsible for

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ensuring that the end product or system complies with all the relevant laws in the country where it is to be used. Refer to instruction manual. Product Service

8. Additional equipment connected to the inverter must comply with the respective IEC, EN or ISO standards (e.g. EN 60950 for data processing equipment, EN 60439 for switchgear).

9. For safety reasons, install the emergency stop devices at station adjacent to solar inverter in the end-system. Pressing the stop function on the control panel of the inverter does not generate an emergency stop and separate the inverter from dangerous potential.

10. To allow maintenance of PV inverter, means of isolating the PV inverter from the DC side and the AC side shall be provided at the end-use application.

11. The following safety parameters are factory setted and fixed per VDE 0126-1-1:

Grid interconnection over-voltage trip setting: 253V;

Grid interconnection under-voltage trip setting: 195V;

Grid interconnection over-frequency trip setting: 50,1Hz;

Grid interconnection under-frequency trip setting: 48,5 Hz;

Recover time before ON: 100s;

Array ground insulation resistance measurement threshold setting: 1100kohms.

Unauthorised access to factory safety parameters setting and software should be prohibited.

A reset to the factory safety parameters requires retesting and verification in conjunction with the end-use system.

Date: 2010-03-26