

# SG5KTL-D

SUNGROW

## Residential String Inverter



### HIGH YIELD

- Higher yield with Max. efficiency 97.5 %, European efficiency 97.1 %



### EASY AND USER FRIENDLY

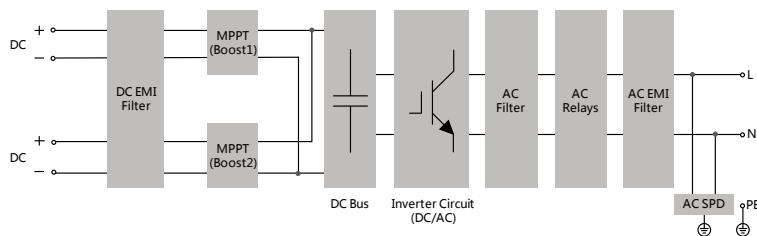
- 11 kg compact design, plug and play installation
- Fast commissioning via LCD



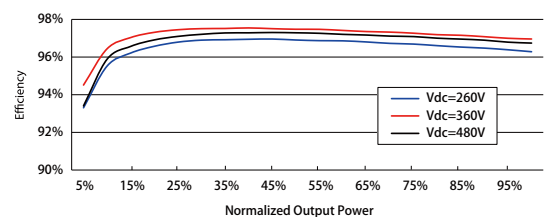
### SAFE AND DURABLE

- Built-in surge arresters and residual current protection
- High anti-corrosion with aluminum alloy die casting

## CIRCUIT DIAGRAM



## EFFICIENCY CURVE



| Type designation                        | SG5KTL-D                                                                           |
|-----------------------------------------|------------------------------------------------------------------------------------|
| <b>Input (DC)</b>                       |                                                                                    |
| Max. PV input voltage                   | 600 V                                                                              |
| Min. PV input voltage / Startup voltage | 110 V / 120 V                                                                      |
| Nominal input voltage                   | 360 V                                                                              |
| MPP voltage range                       | 110 V – 560 V                                                                      |
| MPP voltage range for nominal power     | 260 V – 480 V                                                                      |
| No. of MPPTs                            | 2                                                                                  |
| Max. number of PV strings per MPPT      | 1                                                                                  |
| Max. PV input current                   | 20 A (10 A / 10 A)                                                                 |
| Max. current for input connector        | 12 A                                                                               |
| Max. PV short-circuit current           | 13 A                                                                               |
| <b>Output (AC)</b>                      |                                                                                    |
| Max. AC output power                    | 5000 VA / 4990 VA* (Australia)                                                     |
| Max. AC output current                  | 21.7 A                                                                             |
| Nominal AC voltage                      | 230 Vac                                                                            |
| AC voltage range                        | 180 – 276Vac                                                                       |
| Nominal grid frequency                  | 50 Hz / 60 Hz                                                                      |
| Grid frequency range                    | 45 – 55 Hz / 55 – 65 Hz                                                            |
| THD                                     | < 3 % (of nominal power)                                                           |
| DC current injection                    | <0.5 % (of nominal current)                                                        |
| Power factor                            | > 0.99 / 0.8 leading – 0.8 lagging                                                 |
| Feed-in phases / Connection phases      | 1 / 1                                                                              |
| <b>Efficiency</b>                       |                                                                                    |
| Max. efficiency / European efficiency   | 97.5 % / 97.1 %                                                                    |
| <b>Protection</b>                       |                                                                                    |
| AC short circuit protection             | Yes                                                                                |
| Leakage current protection              | Yes                                                                                |
| DC reverse connection protection        | Yes                                                                                |
| Grid monitoring                         | Yes                                                                                |
| PV string current monitoring            | Yes                                                                                |
| DC switch                               | No                                                                                 |
| Overvoltage protection                  | AC Type II                                                                         |
| <b>System Data</b>                      |                                                                                    |
| Dimensions (W*H*D)                      | 300*390*133 mm                                                                     |
| Weight                                  | 11 kg                                                                              |
| Isolation method                        | Transformerless                                                                    |
| Ingress protection rating               | IP65                                                                               |
| Night power consumption                 | < 1 W                                                                              |
| Operating ambient temperature range     | -25 to 60 °C (> 45 °C derating)                                                    |
| Allowable relative humidity range       | 0 – 100 %                                                                          |
| Cooling method                          | Natural cooling                                                                    |
| Max. operating altitude                 | 4000m (> 2000 m derating)                                                          |
| Display                                 | LED, LCD (Optional)                                                                |
| Communication                           | RS485, Wi-Fi (Optional)                                                            |
| DC connection type                      | MC4 (Max. 6mm <sup>2</sup> )                                                       |
| AC connection type                      | Plug and play connector (Max. 6mm <sup>2</sup> )                                   |
| Certification                           | IEC61000-6-2, IEC61000-6-3, AS/NZS3100, AS4777.2, AS4777.3, IEC62109-1, IEC62109-2 |

