

# Smart Energy Controller



## Higher Yields

Max. Efficiency  
Up to 98.4%



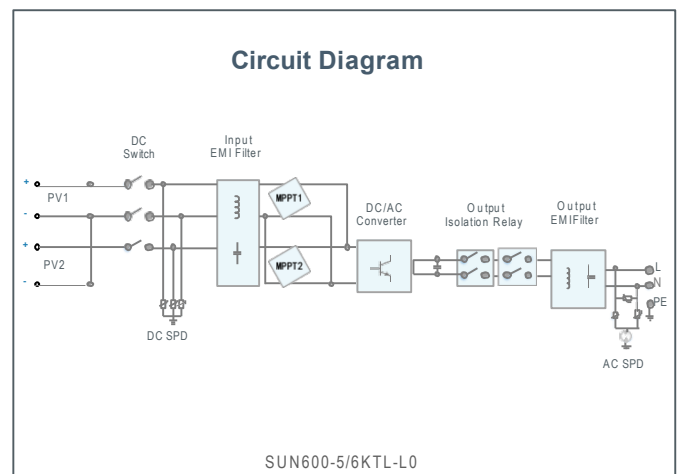
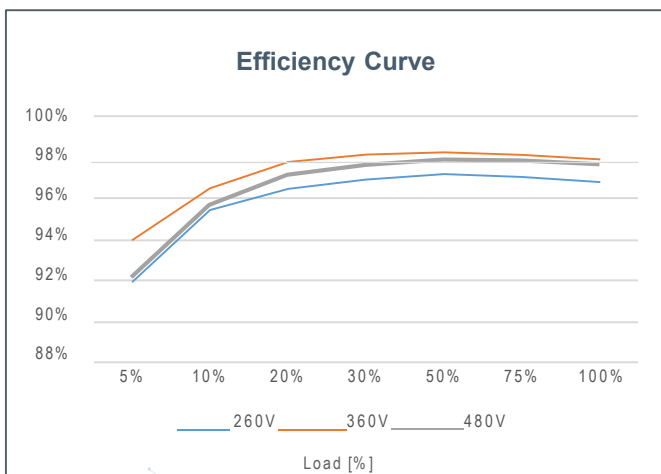
## Better Experience

Small & Light  
Only 12kg



## Safe & Reliable

Fully Sealed design  
With IP65



# Technical Specification

| Technical Specification | SUN600-5KTL-L0 | SUN600-6KTL-L0 |
|-------------------------|----------------|----------------|
|-------------------------|----------------|----------------|

| Efficiency                   |        |       |
|------------------------------|--------|-------|
| Max. efficiency              | 98.4 % | 97.8% |
| European weighted efficiency | 97.8 % | 97.2% |

| Input (PV)                   |                      |                      |
|------------------------------|----------------------|----------------------|
| Recommended max. PV power    | 6,900 W <sub>p</sub> | 7,500 W <sub>p</sub> |
| Max. input voltage           | 600 V                |                      |
| Start-up voltage             | 100 V                |                      |
| MPPT operating voltage range | 90 V – 560 V         |                      |
| Rated input voltage          | 360 V                |                      |
| Max. input current per MPPT  | 12.5 A               |                      |
| Max. short-circuit current   | 18 A                 |                      |
| Number of MPP trackers       | 2                    |                      |
| Max. number of inputs        | 2                    |                      |

| Output                         |                             |          |
|--------------------------------|-----------------------------|----------|
| Grid connection                | Single phase                |          |
| Rated output power             | 5,000 W <sup>1</sup>        | 6,000 W  |
| Rated apparent output power    | 5,000 VA <sup>1</sup>       | 6,000 VA |
| Max. apparent power            | 5,000 VA <sup>1</sup>       | 6,000 VA |
| Rated output voltage           | 220 Vac / 230 Vac / 240 Vac |          |
| Rated AC grid frequency        | 50 Hz / 60 Hz               |          |
| Max. output current            | 22.7 A <sup>1</sup>         | 27.3 A   |
| Adjustable power factor        | 0.8 leading ... 0.8 lagging |          |
| Max. total harmonic distortion | ≤ 3 %                       |          |

| Protection & Feature           |  |  |
|--------------------------------|--|--|
| Anti-islanding protection      | Yes  |  |
| DC reverse polarity protection | Yes  |  |
| Insulation monitoring          | Yes  |  |
| DC surge protection            | Yes, compatible with TYPE II protection class according to EN/IEC 61643-11 |  |
| AC surge protection            | Yes, compatible with TYPE II protection class according to EN/IEC 61643-11 |  |
| Residual current monitoring    | Yes  |  |
| AC overcurrent protection      | Yes  |  |
| AC short-circuit protection    | Yes  |  |
| AC overvoltage protection      | Yes  |  |
| Over-heat protection           | Yes  |  |

| General Data                       |  |  |
|------------------------------------|--|--|
| Operating temperature range        | -25 ~ +60 °C (Derating above 45°C @ Rated output power)  |  |
| Relative operating humidity        | 0 %RH ~ 100 %RH  |  |
| Operating altitude                 | 0 ~ 4,000 m (Derating above 2,000 m)   |  |
| Cooling                            | Natural convection   |  |
| Display                            | LED indicators; integrated WLAN + FusionSolar APP  |  |
| Communication                      | RS485, WLAN via inverter built-in WLAN module<br>Ethernet via Smart Dongle-WLAN-FE (Optional); 4G / 3G / 2G via Smart Dongle-4G (Optional) |  |
| Weight (incl. mounting bracket)    | 12.0 kg (26.5 lb)  |  |
| Dimension (incl. mounting bracket) | 365mm * 365mm * 156 mm (14.4 x 14.4 x 6.1 inch)  |  |
| Degree of protection               | IP65   |  |
| Country of Manufacture             | China  |  |

## Standard Compliance (more available upon request)

|                           |   |
|---------------------------|---|
| Safety                    | EN/IEC 62109-1, EN/IEC 62109-2, IEC 62116       |
| Grid connection standards | AS/NZS 4777:2015, AS/NZS 4777:2020 <sup>2</sup> |

<sup>1</sup> According to AS/NZS 4777:2020 standard