

Smart Energy Center



reddot award 2016
winner



Higher Revenue

Max. efficiency 98.6%



Simple & Easy

Optimized AC connector



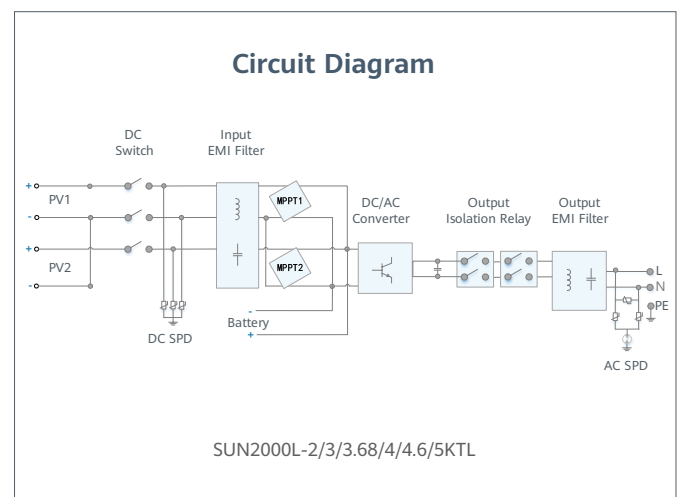
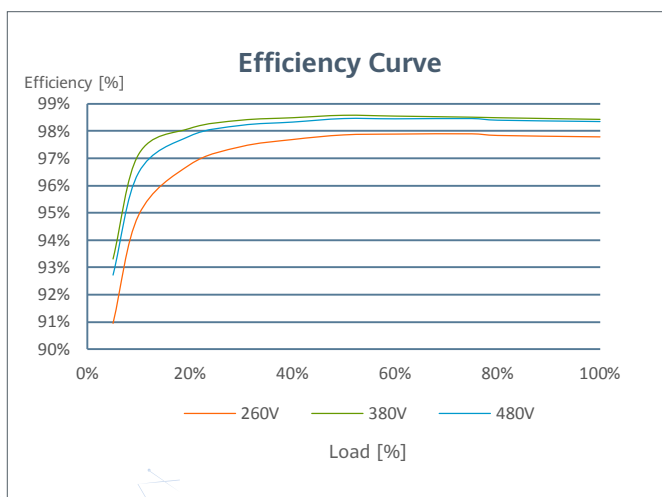
Battery Ready

Plug & Play battery interface



Safe & Reliable

DC & AC surge protection



SUN2000L-2/3/3.68/4/4.6/5KTL Technical Specification

| Technical Specification | SUN2000L-2KTL | SUN2000L-3KTL | SUN2000L-3.68KTL | SUN2000L-4KTL | SUN2000L-4.6KTL | SUN2000L-5KTL |
|-------------------------|---------------|---------------|------------------|---------------|-----------------|---------------|
|-------------------------|---------------|---------------|------------------|---------------|-----------------|---------------|

Efficiency

| | | | | | | |
|------------------------------|--------|--------|--------|--------|--------|--------|
| Max. efficiency | 98.4 % | 98.5 % | 98.5 % | 98.6 % | 98.6 % | 98.6 % |
| European weighted efficiency | 97.0 % | 97.6 % | 97.8 % | 97.9 % | 98.0 % | 98.0 % |

Input

| | | | | | | |
|--------------------------------------|--|---------------|---------------|---------------|---------------|---------------|
| Recommended max. PV power | 3,000 Wp | 4,500 Wp | 5,520 Wp | 6,000 Wp | 6,900 Wp | 7,500 Wp |
| Max. input voltage | 600 V / 495 V ¹ | | | | | |
| Operating voltage range ¹ | 90 V ~ 600 V / 90 V ~ 495 V ¹ | | | | | |
| Start-up voltage | 120 V | | | | | |
| Full power MPPT voltage range | 120 V ~ 480 V | 160 V ~ 480 V | 190 V ~ 480 V | 210 V ~ 480 V | 260 V ~ 480 V | 260 V ~ 480 V |
| Rated input voltage | 380 V | | | | | |
| Max. input current per MPPT | 11 A | | | | | |
| Max. short-circuit current | 15 A | | | | | |
| Number of MPP trackers | 2 | | | | | |
| Max. number of inputs | 2 | | | | | |

Output

| | | | | | | |
|--------------------------------|-----------------------------|----------|----------|----------|-----------------------|-----------------------|
| Grid connection | Single phase | | | | | |
| Rated output power | 2,000 W | 3,000 W | 3,680 W | 4,000 W | 4,600 W | 5,000 W ² |
| Max. apparent power | 2,200 VA | 3,300 VA | 3,680 VA | 4,400 VA | 5,000 VA ³ | 5,500 VA ⁴ |
| Rated output voltage | 220 V / 230 V / 240 V | | | | | |
| Rated AC grid frequency | 50 Hz / 60 Hz | | | | | |
| Max. output current | 10 A | 15 A | 16 A | 20 A | 23 A ⁵ | 25 A ⁵ |
| Adjustable power factor | 0.8 leading ... 0.8 lagging | | | | | |
| Max. total harmonic distortion | ≤ 3 % | | | | | |

Protection

| | |
|----------------------------------|-----|
| Anti-Islanding protection | Yes |
| DC reverse polarity protection | Yes |
| Insulation monitoring | Yes |
| DC surge protection ⁶ | Yes |
| AC surge protection ⁶ | Yes |
| 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 | -30 ~ +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 |
| Communication | RS485, WLAN |
| Weight (incl. mounting bracket) | 10.6 kg (23.4 lb) |
| Dimension (incl. mounting bracket) | 375 x 375 x 161.5 mm (14.8 x 14.8 x 6.4 inch) |
| Degree of protection | IP65 |
| Nighttime Power Consumption | < 2 W |

Battery Compatibility

| | |
|---------------|---------------------------|
| Battery | LG Chem RESU 7H_R / 10H_R |
| Voltage range | 350 ~ 450 Vdc |
| Max. current | 10 A |
| Communication | RS485 |

Optimizer Compatibility

| | |
|------------------------------|---|
| DC MBUS compatible optimizer | SUN2000P-375W via Smart PV Safety Box SmartPSB2000L |
|------------------------------|---|

Standard Compliance (more available upon request)

| | |
|---------------------------|--|
| Safety | EN/IEC 62109-1, EN/IEC 62109-2 |
| Grid connection standards | G83/2, G59/3, EN 50438, CEI 0-21, VDE-AR-N-4105, AS 4777, C10/11, ABNT, UTE C15-712, RD 1699, NRS 097-2-1, DEWA 2016 |

*1. Only applicable for PV string. The maximum input voltage and operating voltage upper limit will be reduced to 495 V when inverter connects and works with LG battery.

*2. AS4777:4990W. *3. VDE-AR-N 4105:4600VA / AS4777:4990VA. *4. AS4777:4990VA. *5. AS4777:21.7A.

*6. Compatible TYPE II protection class according to EN/IEC 61643-11