

# Smart Energy Center



reddot award 2016  
winner

## Higher Revenue

- High efficiency inverter topology
- Max. efficiency 98.6%
- European weighted efficiency 98.0%

## Simple & Easy

- 10.6kg, allows one person simple installation
- Optimized AC connector for quick wiring
- Supports one-click inverter configuration

## Battery Ready

- Integrated Plug & Play energy storage interface

## Safe & Reliable

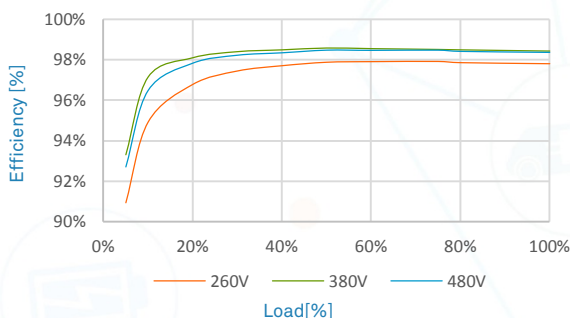
- IP65, natural convection
- Integrated lightning protection for both DC and AC
- Zero export function with smart power sensor

# SUN2000L-2/3/3.68/4/4.6/5KTL

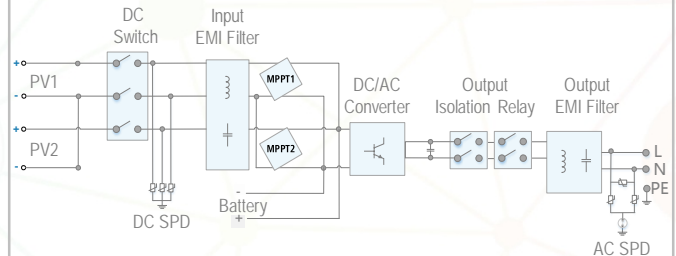
Technical Specification	SUN2000L-2KTL	SUN2000L-3KTL	SUN2000L-3.68KTL	SUN2000L-4KTL	SUN2000L-4.6KTL	SUN2000L-5KTL
<b>Efficiency</b>						
Max. efficiency	98.4 %	98.5 %	98.5 %	98.6 %	98.6 %	98.6 %
European weighted efficiency	97.0 %	97.6 %	97.8 %	97.9 %	98.0 %	98.0 %
<b>Input</b>						
Recommended max. 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 <sup>1</sup>					
Operating voltage range <sup>1</sup>	90 V ~ 600 V / 90 V ~ 495 V <sup>1</sup>					
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 per MPPT	1					
<b>Output</b>						
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 <sup>2</sup>
Max. apparent power	2,200 VA	3,300 VA	3,680 VA	4,400 VA	5,000 VA <sup>3</sup>	5,500 VA <sup>4</sup>
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 <sup>5</sup>	25 A <sup>5</sup>
Adjustable power factor	0.8 leading ... 0.8 lagging					
Max. total harmonic distortion	≤ 3 %					
<b>Protection</b>						
Anti-Islanding protection	Yes					
DC reverse polarity protection	Yes					
Insulation monitoring	Yes					
DC lightning protection	Yes					
AC lightning protection	Yes					
Residual current monitoring	Yes					
AC overcurrent protection	Yes					
AC short-circuit protection	Yes					
AC overvoltage protection	Yes					
Over-heat protection	Yes					
<b>General Data</b>						
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 * 375 * 161.5 mm (14.8 * 14.8 * 6.4 inch)					
Degree of protection	IP65					
<b>Battery Compatibility</b>						
Battery	LG Chem RESU 7H_R / 10H_R					
Voltage range	350 ~ 450 Vdc					
Max. current	10 A					
Communication	RS485					
<b>Standard Compliance (more available upon request)</b>						
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, UTE C 15-712-1, AS 4777, C10/11, ABNT, UTE C15-712, RD 1699, NRS 097-2-1, DEWA 2016					

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### Efficiency Curve



### Circuit Diagram



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

\*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.