

# Smart Energy Center



reddot award 2016  
winner



## Higher Revenue

Max. efficiency 98.6%



## Simple & Easy

Optimized AC connector



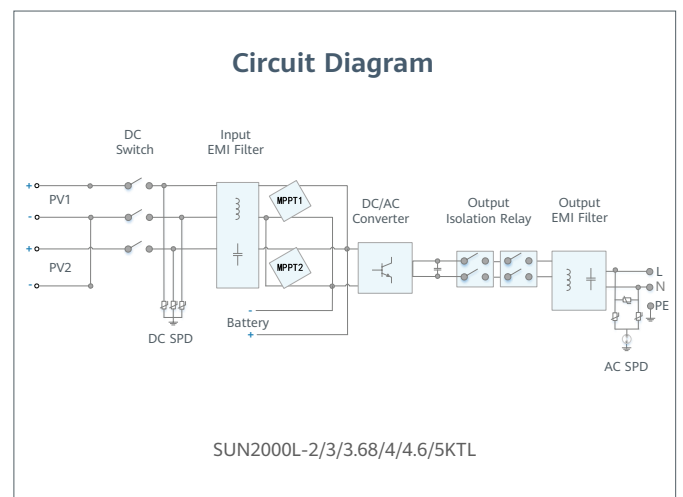
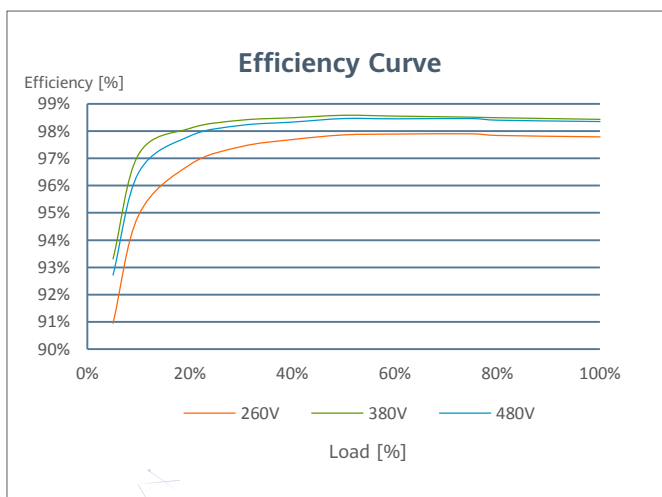
## Battery Ready

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
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## 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 <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	2					

## Output

	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 %					

## Protection

Anti-Islanding protection	Yes
DC reverse polarity protection	Yes
Insulation monitoring	Yes
DC surge protection <sup>6</sup>	Yes
AC surge protection <sup>6</sup>	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
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## 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

<sup>1</sup> 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.

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

<sup>6</sup> Compatible TYPE II protection class according to EN/IEC 61643-11