

# Smart Energy Center



reddot award 2016  
winner



## Higher Revenue

Max. efficiency 98.6%



## Simple & Easy

Optimized AC connector



## Battery Ready

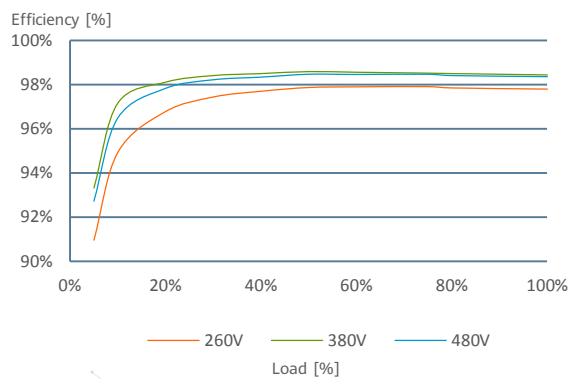
Plug & Play battery interface



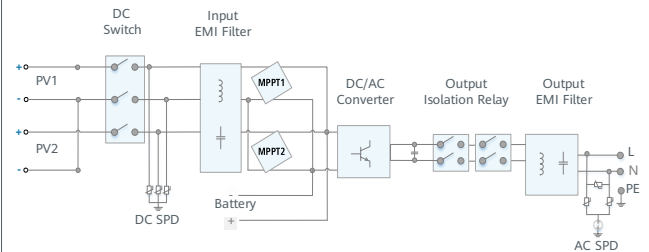
## Safe & Reliable

DC & AC surge protection

### Efficiency Curve



### Circuit Diagram



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

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

Technical Specification	SUN2000L -2KTL	SUN2000L -3KTL	SUN2000L -4KTL	SUN2000L -4.6KTL	SUN2000L -5KTL
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## Efficiency

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

## Input

Recommended max. PV power	3,000 Wp	4,500 Wp	6,000 Wp	6,900 Wp	7,500 Wp
Max. input voltage <sup>1</sup>	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	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				

## Output

Grid connection	Single phase				
Rated output power	2,000 W	3,000 W	4,000 W	4,600 W	4,990 W
Max. apparent power	2,200 VA	3,300 VA	4,400 VA	4,990 VA	4,990 VA
Rated output voltage	220 V / 230 V / 240 V				
Rated AC grid frequency	50 Hz / 60 Hz				
Max. output current	10 A	15 A	20 A	21.7 A	21.7 A
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>2</sup>	Yes
AC surge protection <sup>2</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

## Battery Compatibility

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

## Standard Compliance (more available upon request)

Safety	EN/IEC 62109-1, EN/IEC 62109-2
Grid connection standards	AS/NZS 4777:2015

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