



### Active Safety

AI Powered  
Active Arcing Protection



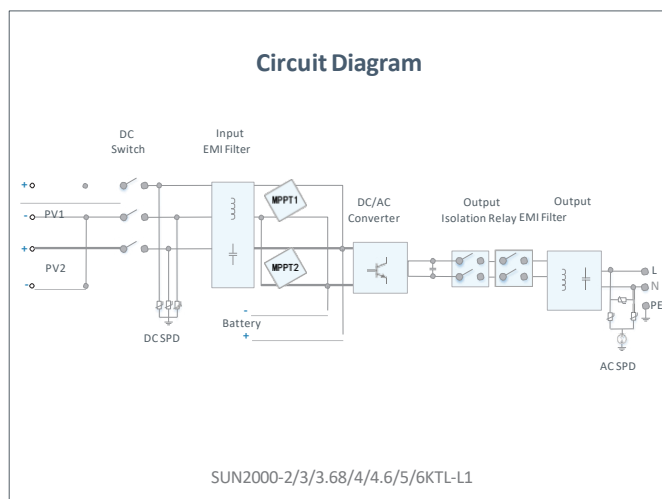
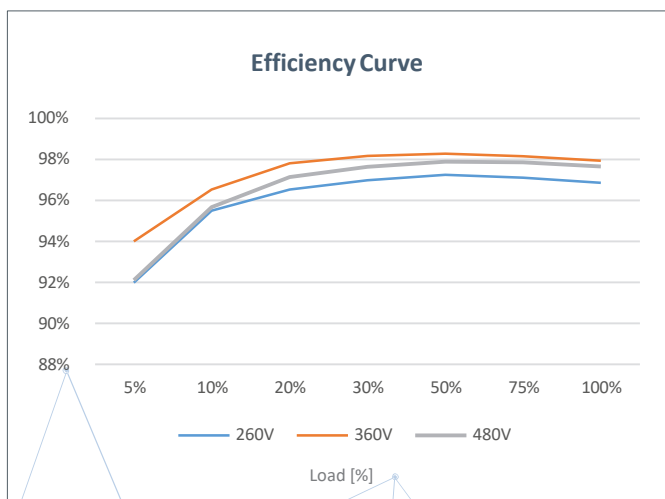
### Higher Yields

Up to 30% More Energy with  
Optimizer



### 2x POWER Battery Ready

5KW AC Output plus  
5KW Battery Charge



SUN2000-2/3/3.68/4/4.6/5/6KTL-L1  
**Technical Specification**

Technical Specification	SUN2000 -2KTL-L1	SUN2000 -3KTL-L1	SUN2000 -3.68KTL-L1	SUN2000 -4KTL-L1	SUN2000 -4.6KTL-L1	SUN2000 -5KTL-L1	SUN2000 -6KTL-L1 <sup>1</sup>
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**Efficiency**

Max. efficiency	98.2%	98.3%	98.4%	98.4%	98.4%	98.4%	98.4%
European weighted efficiency	96.7%	97.3%	97.3%	97.5%	97.7%	97.8%	97.8%

**Input (PV)**

Recommended max. PV power <sup>2</sup>	3,000Wp	4,500Wp	5,520 Wp	6,000 Wp	6,900 Wp	7,500 Wp	9,000 Wp
Max. input voltage	600 V <sup>3</sup>						
Start-up voltage	100 V						
MPPT operating voltage range	90 V – 560 V <sup>3</sup>						
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. input number per MPP tracker	1						

**Input (DC Battery)**

Compatible Battery	LG Chem RESU 7H_R / 10H_R						
Operating voltage range	350 ~ 450 Vdc						
Max operating current	10 A @7H_R / 15 A @10H_R						
Max charge power	3,500 W @7H_R / 5,000 W @10H_R						
Max discharge Power @7H_R	2,200W	3,300W	3,500 W	3,500 W	3,500 W	3,500 W	3,500 W
Max discharge Power @10H_R	2,200W	3,300W	3,680 W	4,400 W	4,600 W	5,000 W	5,000 W

Compatible Battery	HUAWEI Smart ESS Battery 5kWh – 30kWh <sup>1</sup>						
Operating voltage range	350 ~ 560 Vdc						
Max operating current	15 A						
Max charge Power	5,000 W <sup>4</sup>						
Max discharge Power	2,200W	3,300W	3,680 W	4,400W	4,600 W	5,000 W	5,000 W

**Output (On Grid)**

Grid connection	Single phase						
Rated output power	2,000W	3,000 W	3,680 W	4,000W	4,600 W	5,000 W <sup>5</sup>	6,000 W
Max. apparent power	2,200VA	3,300 VA	3,680 VA	4,400VA	5,000 VA <sup>6</sup>	5,500 VA <sup>7</sup>	6,000 VA
Rated output voltage	220 Vac / 230 Vac / 240 Vac						
Rated AC grid frequency	50 Hz / 60 Hz						
Max. output current	10 A	15 A	16 A	20 A	23 A <sup>8</sup>	25 A <sup>8</sup>	27.3 A
Adjustable power factor	0.8 leading ... 0.8 lagging						
Max. total harmonic distortion	≤ 3 %						

**Output (Backup Power via Backup Box-B0)**

Maximum apparent power	5,000 VA						
Rated output voltage	220 V / 230 V						
Maximum output current	22.7 A						
Power factor range	0.8 leading ... 0.8 lagging						

\*1 Available in 2020Q3.

\*2 Inverter max input PV power is 10,000Wp when long strings are designed and fully connected with SUN2000-450W-P power optimizers.

\*3 The maximum input voltage and operating voltage upper limit will be reduced to 495 V when inverter connects and works with LG battery.

\*4 2,500 W @ 5kWh HUAWEI ESS battery

\*5 AS4777.2:4,991W. \*6. VDE-AR-N 4105: 4,600VA / AS4777.2: 4,999VA. \*7. AS4777.2: 4,999VA / C10/11:5,000VA \*8. AS4777.2: 21.7A.

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### 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						
Arc fault protection	Yes						
Battery reverse charging from grid	Yes						

### General Data

Operating temperature range	-25 ~ +60 °C						
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 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						
Nighttime Power Consumption	< 2.5 W						

### Optimizer Compatibility

DC MBUS compatible optimizer	SUN2000-450W-P						
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### Standard Compliance (more available upon request)

Safety	EN/IEC 62109-1, EN/IEC 62109-2						
Grid connection standards	G98, G99, EN 50549-1, CEI 0-21, VDE-AR-N-4105, AS 4777.2, C10/11, ABNT, UTE C15-712, RD 1699, TOR D4, IEC61727, IEC62116						

