



## Active Safety

AI Powered  
Active Arcing Protection



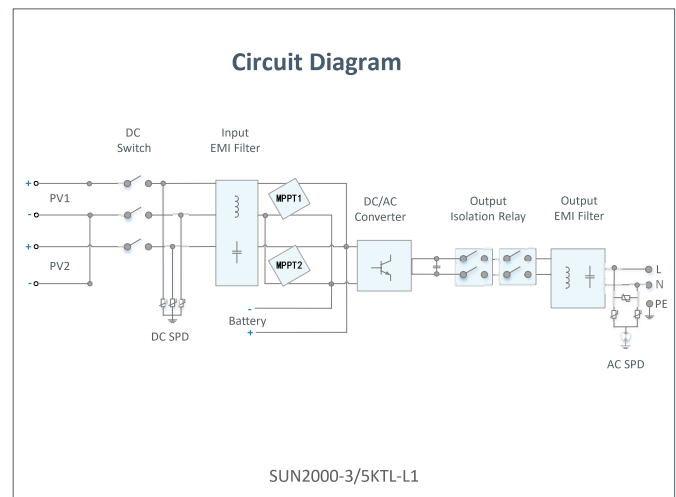
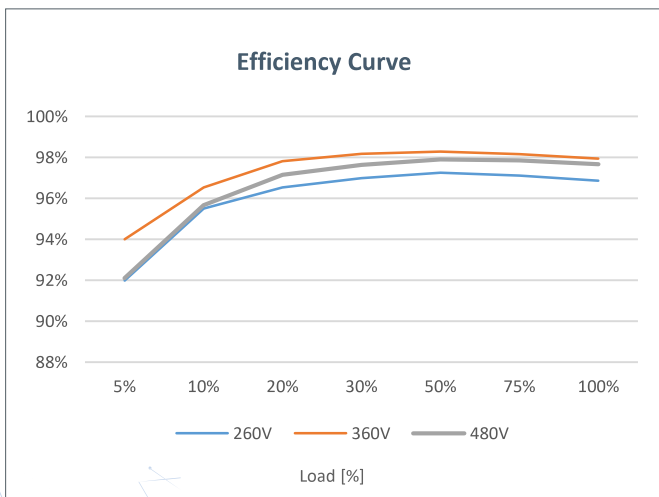
## Higher Yields

Up to 30% More Energy  
with Optimizer



## 2x POWER Battery Ready

5KW AC Output plus  
5KW Battery Charge



Technical Specification	SUN2000 -3KTL-L1	SUN2000 -5KTL-L1
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Efficiency		
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Max. efficiency	98.3 %	98.4 %
European weighted efficiency	97.3 %	97.8 %

Input (PV)		
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Recommended max. PV power <sup>1</sup>	4,500 Wp	7,500 Wp
Max. input voltage	600 V <sup>1</sup>	
Start-up voltage	100 V	
MPPT operating voltage range	90 V – 560 V <sup>2</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)		
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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	3,300 W	3,500 W
Max discharge Power @10H_R	3,300 W	5,000 W

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

Output (On Grid)		
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Grid connection	Single phase	
Rated output power	3,000 W	5,000 W
Max. apparent power	3,300 VA	5,500 VA
Rated output voltage	220 Vac / 230 Vac / 240 Vac	
Rated AC grid frequency	50 Hz / 60 Hz	
Max. output current	15 A	25 A
Adjustable power factor	0.8 leading ... 0.8 lagging	
Max. total harmonic distortion	≤ 3 %	

Output (Off Grid)		
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Backup Box (Optional)	Backup Box – B0	
Maximum apparent power	3,000 VA	5,000 VA
Rated output voltage	220 V / 230 V	
Maximum output current	13.6 A	22.7 A
Power factor range	0.8 leading ... 0.8 lagging	

\*1 Inverter max input PV power will be changed when long strings are designed and fully connected with power optimizers.  
 \*2 The maximum input voltage and operating voltage upper limit will be reduced to 495 V when inverter connects and works with LG battery.  
 \*3 2,500 W @ 5kWh HUAWEI ESS battery.

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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, SUN2000-600W-P

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,PEA,MEA

