



Upgraded Safety

AI BOOST AFCI
99.9% Accurate Arc Fault Detection



Higher Yields

Up to 30% More Energy
with Full Optimizer



Battery Ready

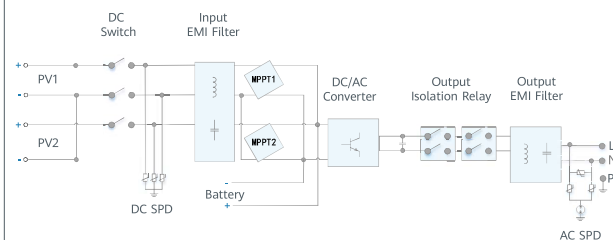
Plug & Play Battery Interface



'5+5' Battery Charge

5KW battery charging
plus 5KW AC output

Circuit Diagram



SUN2000-3/5KTL-L1

SUN2000-3/5KTL Technical Specification

Technical Specification	SUN2000-3KTL-L1	SUN2000-5KTL-L1
Efficiency		
Max. efficiency	98.3 %	98.4 %
European weighted efficiency	97.3 %	97.8 %
Input (PV)		
Recommended max. PV power ²	4,500 Wp	7,500 Wp
Max. input voltage	600 V ³	
Start-up voltage	100 V	
MPPT operating voltage range	90 V – 560 V ³	
Rated input voltage	360 V	
Max. input current per MPPT	13 A	
Max. short-circuit current	15 A	
Number of MPP trackers	2	
Max. number of inputs	2	
Input (DC Battery)		
Compatible Battery	LG Chem RESU 7H_R / 10H_R	HUAWEI PowerMate ESS Battery ¹
Number of connected battery	1	2
Operating voltage range	350 ~ 450 Vdc	350 ~ 560 Vdc
Max operating current	15 A	
Continuous Power	5,000 W	
Output		
Grid connection	Single phase	
Rated output power	3,000 W	5,000 W ⁴
Max. apparent power	3,300 VA	5,500 VA ⁶
Rated output voltage	220 V / 230 V / 240 V	
Rated AC grid frequency	50 Hz / 60 Hz	
Max. output current	15 A	25 A ⁷
Adjustable power factor	0.8 leading ... 0.8 lagging	
Max. total harmonic distortion	≤ 3 %	
Backup power output	Yes (via Backup Box-5000 ¹)	
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 (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 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)	12.6 kg (27.8 lb)	
Dimension (incl. mounting bracket)	365mm * 365mm * 140 mm (14.4 x 14.4 x 5.5 inch)	
Degree of protection	IP65	
Optimizer Compatibility		
DC MBUS compatible optimizer	SUN2000-450W-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, C10/11, ABNT, UTE C15-712, RD 1699, TOR D4, IEC61727, IEC62116	

*1 Available in 2020 Q3.

*2 Inverter max input PV power is 10,000 Wp 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 AS4777: 4990W. *5. VDE-AR-N 4105: 4600VA / AS4777: 4990VA. *6. AS4777: 4990VA. *7. AS4777: 21.7A.