

Smart Energy Center



Active security

Active arc protection
based on AI



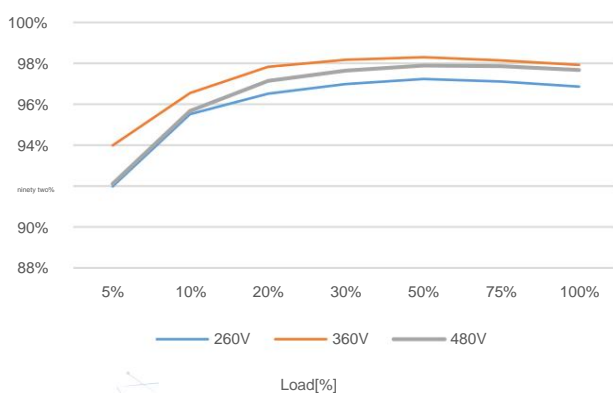
Superior yields

Up to 30%+ energy thanks
to optimizers

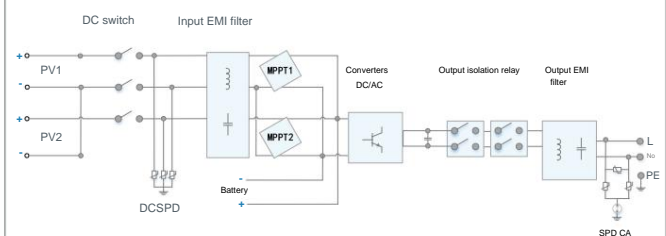


**Double power available for the
battery 5kW for AC output
+ 5kW for battery recharging**

Efficiency curve



Wiring diagram



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

Technical Specifications

Technical specifications	SUN2000 -2KTL-L1	SUN2000 -3KTL-L1	SUN2000 -3.68KTL-L1	SUN2000 -4KTL-L1	SUN2000-4.6KTL-L1	SUN2000 -5KTL-L1	SUN2000 -6KTL-L1	
Efficiency								
Maximum 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								
Maximum recommended PV power 2	3,000Wp	4,500Wp	5.520Wp	6,000 Wp 600 V	6,900Wp	7,500 Wp	9,000Wp	
input voltage max	3 100 V 90 V –							
Starting voltage	560 V 3 360 V							
MPPT operating voltage range	12.5 A							
Nominal input voltage								
Max. input current for MPPT								
Max. short circuit current								
Number of MPP trackers								
Max. number of inputs	18A							
	2							
	2							
Input DC Battery								
Compatible battery	LG Chem RESU 7H_R / 10H_R							
Operating voltage range	350 – 450Vdc							
Max operating current	10A @7H_R / 15A @10H_R							
Max charging power	3,500W @7H_R / 5,000W @10H_R							
Maximum discharge power @ 7H_R	2,200W	3,300W	3,500W	3,500W	3,500W	3,500W	3,500W	
Maximum discharge power @ 10H_R	2,200W	3,300W	3,680W	4,400W	4,600W	5,000W	5,000W	
Compatible battery	HUAWEI Smart LUNA2000 ESS Battery 5kWh – 30kWh 1							
Operating voltage range	350 – 560Vdc							
Max operating current	15A							
Maximum charging power	5,000W 4							
Maximum discharge power	2,200W	3,300W	3,680W	4,400W	4,600W	5,000W	5,000W	
Exit								
Connection to the electricity grid	Single phase							
Rated output power	2,000W	3,000W	3,680 W 4,600 W 3,680 W 4,600 W 5,000 VA 6 220 Vac / 230	5,000W 5				6,000W
Max. apparent power	2,200 VA	3,300VA	Vac / 240 Vac 50 Hz / 4,600 VA 0.8 capac. 5,500VA 7	6,000VA 7				6,000VA
Rated output voltage								
Nominal AC Grid Frequency								
Maximum Output Current	10 A	15A	16 A	23 to 8		25 to 8	27.3A	
Adjustable Power Factor								
Max. Total Harmonic Distortion								
Backup Power								
	Yes (via Backup Box-B0 1)							
Protection & Feature								
Anti-islanding protection	Yup							
DC reverse polarity protection	Yup							
Insulation monitoring	Yup							
DC overvoltage protection	Yes, compatible with TYPE II protection class according to EN / IEC 61643-11							
AC Over Voltage Protection	Yes, compatible with TYPE II protection class according to EN / IEC 61643-11							
Residual current monitoring	Yup							
AC over current protection	Yup							
AC short circuit protection	Yup							
AC Over Voltage Protection	Yup							
Overheating protection	Yup							
AFCI arc fault protection	Yup							
Reverse charging of the battery from the network	Yup							
General data								
Operating temperature range	-25 – +60°C							
Relative operating humidity	0%RH~100%RH							
Operating altitude	0 – 4,000m (decrease over 2,000m)							
Cooling down	Natural convection LED							
Display	indicators; Integrated WLAN + FusionSolar RS485 APP, WLAN							
Communication	via integrated WLAN module in the inverter Ethernet via Smart Dongle- WLAN-FE (optional); 4G / 3G / 2G via Smart Dongle-4G (optional) 12.0 kg							
Weight (including mounting bracket)								
Dimensions (including mounting bracket)	365mm*365mm*156mm							
Degree of protection	IP65							
Night energy consumption	< 2.5W							
Compatible Optimizer								
Optimizer compatible with DC MBUS	SUN2000-450W-P							
Compliance with standards (others available upon request)								
Safety	EN/IEC 62109-1, EN/IEC 62109-2							
Standard network connections	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							

*1 Available in 2020 Q3.
*2 The maximum PV input power of the inverter is 10,000 Wp when long strings are designed and fully connected with SUN2000-450W-P power optimizers.
*3 The maximum input voltage and the upper limit of the operating voltage will be reduced to 495V when the inverter connects and works with LG battery.
* 4 2,500W @ 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.