

# Smart Energy Controller



### Active Safety

Active Arcing Protection



### Higher Yields

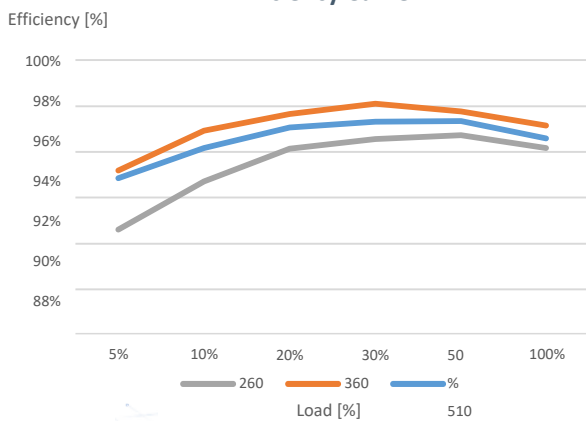
Up to 30% More Energy with Optimizer



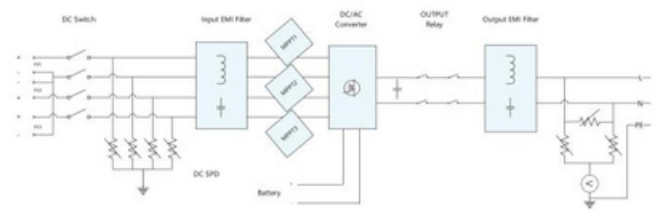
### Battery Ready

Plug & Play, Whole-house power backup

### Efficiency Curve



### Circuit Diagram



SUN2000-8/10K-LCO

Technical Specification	SUN2000-8K-LCO	SUN2000-10K-LCO
<b>Efficiency</b>		
Max. efficiency	98.1%	
European weighted efficiency	97.5%	
<b>Input (PV)</b>		
Recommended max. PV power	12,000 Wp	15,000 Wp
Max. input voltage <sup>1</sup>	600 V	
Start-up voltage	50 V	
MPPT operating voltage range	40 V ~ 560 V	
Rated input voltage	360 V	
Max. input current per MPPT	16 A	
Max. short-circuit current	20 A	
Max. number of inputs	3	
Number of MPP trackers	3	
<b>Input (DC Battery)</b>		
Compatible battery	LUNA2000-5/10/15-S0	
Operating voltage range	350 ~ 560 Vdc	
Max operating current	25 A	
Max charge power	8,000 W	10,000W
Max discharge power	8,000 W	10,000W
<b>Output (On Grid)</b>		
Grid Connection	Single Phase	
Rated output power	8,000 W	10,000 W
Max. apparent power	8,800 VA	10,000 VA
Rated output voltage	220 Vac / 230 Vac / 240 Vac, L / N + PE	
Max. output current	40.0 A	45.5A
Rated AC grid frequency	50 Hz / 60 Hz	
Adjustable power factor	0.8 leading ... 0.8 lagging	
Max. total harmonic distortion	≤ 3 %	
Backup power output	Yes (via SmartGuard-63A-S0)	
<b>Features &amp; Protection</b>		
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 unit	Yes	
AC over-current 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	
<b>General Data</b>		
Operation temperature range	-25 °C ~ +60 °C (-13 °F ~ 140 °F)	
Relative operating humidity	0 % RH ~ 100% RH	
Operating altitude	0 ~ 4,000 m (Derating above 2,000 m)	
Cooling	Natural Convection	Smart Air Cooling
Display	LED Indicators, Integrated WLAN + FusionSolar APP	
Communication	RS485, WLAN / Ethernet via Smart Dongle-WLAN-FE (Optional) 4G / 3G / 2G via Smart Dongle-4G (Optional), EMMA	
Weight	14.5 kg	15 kg
Dimensions (W x H x D) (incl. mounting plate)	425 * 365 * 150 mm (16.7 * 14.4 * 5.9 inch)	
Degree of protection	IP66	
<b>Optimizer Compatibility</b>		
Compatible optimizer	SUN2000-450W-P2, SUN2000-600W-P	
<b>Standard Compliance (more available upon request)</b>		
Certificates	IEC62109-1, IEC62109-2, EN 61000-6 series, EN 62920 EMC, EN 55011 EMC, ETSI EN 301 489-1 EMC, ETSI EN 301 489-17 EMC, EN 61000-3-11, EN 61000-3-12, IEC61000-2-2	
Grid connection standards	ABNT16149/16150:2013, NRS 097-2-1, PEA, MEA	

\*1 The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.