

# SUN2000-100KTL-M1 Smart PV Controller



10  
MPP Trackers



98.8% (@480V)  
Max. Efficiency



String-level  
Management



Smart I-V Curve Diagnosis  
Supported



MBUS  
Supported



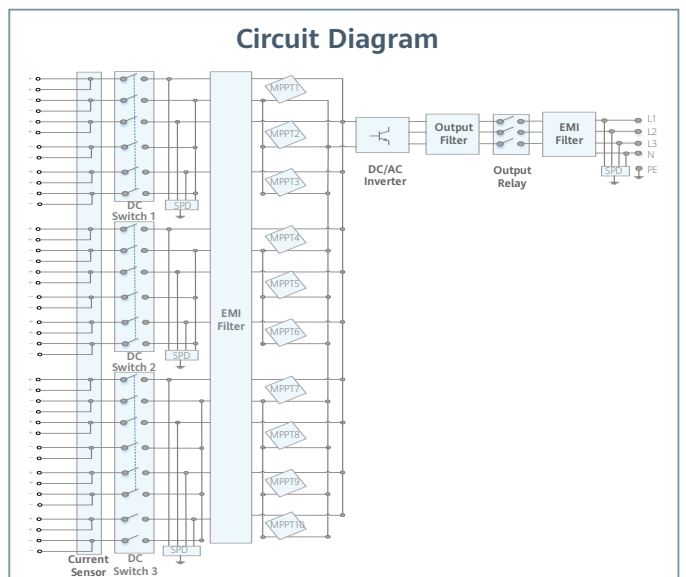
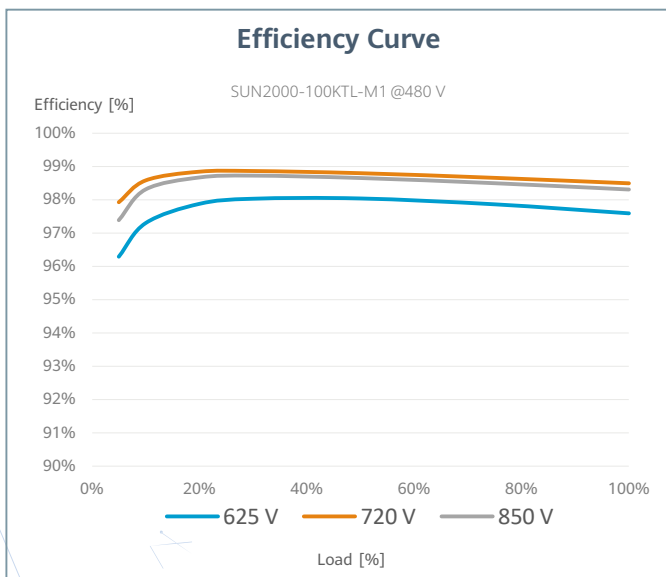
Fuse Free  
Design



Surge Arresters for  
DC & AC



IP66  
Protection



Technical Specification		SUN2000-100KTL-M1
<b>Efficiency</b>		
Max. efficiency	98.8% @480 V, 98.6% @380 V / 400 V	
European efficiency	98.6% @480 V, 98.4% @380 V / 400 V	
<b>Input</b>		
Max. Input Voltage <sup>1</sup>	1,100 V	
Max. Current per MPPT	26 A	
Max. Short Circuit Current per MPPT	40 A	
Start Voltage	200 V	
MPPT Operating Voltage Range <sup>2</sup>	200 V ~ 1,000 V	
Nominal Input Voltage	720 V @480 Vac, 600 V @400 Vac, 570 V @380 Vac	
Number of MPP trackers	10	
Max. input number per MPP tracker	2	
<b>Output</b>		
Nominal AC Active Power	100,000 W	
Max. AC Apparent Power	110,000 VA	
Max. AC Active Power (cosφ=1)	110,000 W	
Nominal Output Voltage	480 V/ 400 V/ 380 V, 3W+(N)+PE	
Rated AC Grid Frequency	50 Hz / 60 Hz	
Nominal Output Current	120.3 A @480 V, 144.4 A @400 V, 152.0 A @380 V	
Max. Output Current	133.7 A @480 V, 160.4 A @400 V, 168.8 A @380 V	
Adjustable Power Factor Range	0.8 leading... 0.8 lagging	
Max. Total Harmonic Distortion	< 3%	
<b>Protection</b>		
Input-side Disconnection Device	Yes	
Anti-islanding Protection	Yes	
AC Overcurrent Protection	Yes	
DC Reverse-polarity Protection	Yes	
PV-array String Fault Monitoring	Yes	
DC Surge Arrester	Type II	
AC Surge Arrester	Type II	
DC Insulation Resistance Detection	Yes	
Residual Current Monitoring Unit	Yes	
Arc Fault Protection	Optional	
<b>Communication</b>		
Display	LED indicators; WLAN adaptor + FusionSolar APP	
RS485	Yes	
USB	Yes	
Smart Dongle-4G	4G / 3G / 2G via Smart Dongle – 4G (Optional)	
Monitoring BUS (MBUS)	Yes (isolation transformer required)	
<b>General Data</b>		
Dimensions (W x H x D)	1,035 x 700 x 365 mm	
Weight (with mounting plate)	90 kg	
Operating Temperature Range	-25°C ~ 60°C	
Cooling Method	Smart Air Cooling	
Max. Operating Altitude	4,000 m (13,123 ft.)	
Relative Humidity	0 ~ 100%	
DC Connector	Staubli MC4	
AC Connector	Waterproof Connector + OT/DT Terminal	
Protection Degree	IP66	
Topology	Transformerless	
Nighttime Power Consumption	< 3.5 W	
<b>Standard Compliance (more available upon request)</b>		
Certificate	EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 61727, IEC 60068, IEC 61683	
Grid Connection Standards	VDE-AR-N4105, EN 50549-1, EN 50549-2, RD 661, RD 1699, C10/11	

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

<sup>\*2</sup> Any DC input voltage beyond the operating voltage range may result in inverter improper operating.