

SUN2000-20KTL-M3 Smart String Inverter



Smart

8 strings intelligent monitoring



Efficient

Max. efficiency 97.6%



Safe

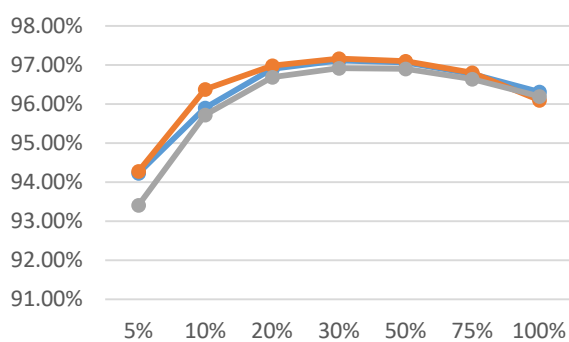
Fuse free design



Reliable

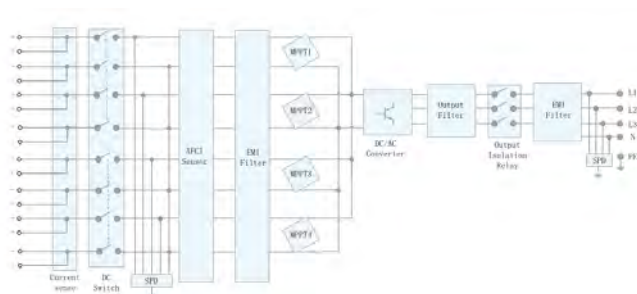
Type II surge arresters for DC & AC

Efficiency Curve



SUN2000-20KTL-M3

Circuit Diagram



SUN2000-20KTL-M3

Technical Specification

Technical Specification		SUN2000-20KTL-M3
Efficiency		
Max. Efficiency		97.1%
European Efficiency		96.7%
Input		
Recommended Max. PV Power		30,000 Wp
Max. Input Voltage ¹		800 V
Max. Current per MPPT		26 A
Max. Short Circuit Current per MPPT		40 A
Start Voltage		200 V
MPPT Operating Voltage Range ²		200 V ~ 750V
Rated Input Voltage		360 V
Number of Inputs		8
Number of MPP Trackers		4
Output		
Rated AC Active Power		20,000 W
Max. AC Apparent Power		22,000 VA
Max. AC Active Power (cosφ=1)		22,000 W
Rated Output Voltage		127 Vac / 220 Vac, 3W/N+PE
Rated AC Grid Frequency		50 Hz / 60Hz
Rated Output Current		52.5 A / 220 Vac
Max. Output Current		58.0 A / 220 Vac
Adjustable Power Factor Range		0.8 LG ... 0.8 LD
Max. Total Harmonic Distortion		<3%
Protection		
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		Yes
Ripple Receiver Control		Yes
Integrated PID Recovery ³		Yes
Communication		
Display		LED Indicators, Integrated WLAN + FusionSolar APP
RS485		Yes
Smart Dongle		WLAN/Ethernet via Smart Dongle-WLAN-FE (Optional) 4G / 3G / 2G via Smart Dongle-4G (Optional)
Monitoring BUS (MBUS)		Yes (Isolation Transformer required)
General Data		
Dimensions (W x H x D)		640 x 530 x 270 mm (25.2 x 20.9 x 10.6 inch)
Weight (with mounting plate)		43 kg (94.8 lb)
Nosie Level		< 46 dB
Operating Temperature Range		-25 ~ + 60 °C (Derating above 45 °C @ Rated output power)
Cooling Method		Natural Convection
Max. Operating Altitude		0 - 4,000 m (Derating above 3000 m)
Relative Humidity		0% RH ~ 100% RH
Protection Degree		IP 66
Topology		Transformerless
Nighttime Power Consumption		≤ 5.5W
Optimizer Compatibility		
DC MBUS Compatible Optimizer		SUN2000-450W-P
Standard Compliance (more available upon request)		
Safety		EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 60068, IEC 61683
Grid Connection Standards		IEC 61727

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

2. Any DC input voltage beyond the operating voltage range may result in inverter improper operating.

3. SUN2000-30~40KTL-M3 raises potential between PV- and ground to above zero through integrated PID recovery function to recover module degradation from PID. Supported module types include: P-type (mono, poly), N-type (nPERT, HIT)