

Smart String Inverter (SUN2000-8/12KTL)



Smart

- 2 MPPTs for versatile adaptations to different module types or quantities built up with different alignments
- 4 strings intelligent monitoring and fast trouble-shooting
- RS485 and USB ports for connectivity and data management
- Local graphic LCD display and remote monitoring

Efficient

- Max. efficiency 98.5%, European efficiency 98.0%
- Easy to install with the weight of 42kg

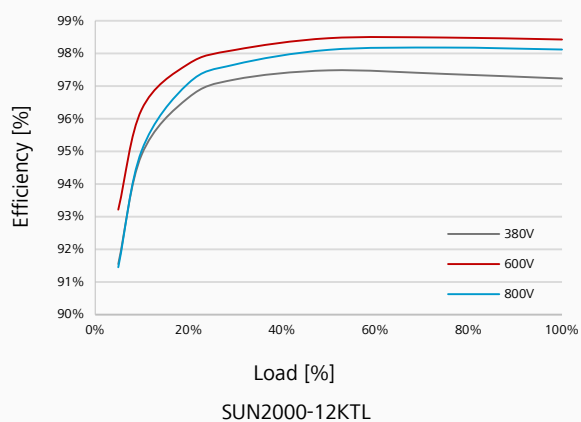
Safe

- DC disconnect integrated, safe and convenient for maintenance
- Type II surge arresters for both DC and AC
- Ground fault protection
- Residual Current Monitoring Unit (RCMU) integrated inside

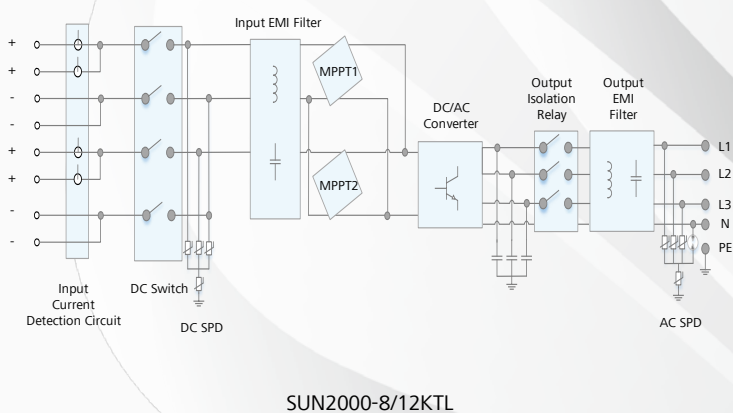
Reliable

- No need for external fans with natural cooling technology
- Protection rating of IP65

Efficiency Curve



Circuit Diagram



Smart String Inverter (SUN2000-8/12KTL)



Technical Specifications	SUN2000-8KTL	SUN2000-12KTL
Efficiency		
Max. Efficiency	98.5%	98.5%
European Efficiency	98.0%	98.0%
Input		
Max. DC Usable Power	9,000 W	13,500 W
Max. Input Voltage	1,000 V	1,000 V
Max. Current per MPPT	18 A	18 A
Max. Short Circuit Current per MPPT	25 A	25 A
Min. Operating Voltage / Start Input Voltage	200 V / 250 V	200 V / 250 V
Full Power MPPT Voltage Range	320 V ~ 800 V	380 V ~ 800 V
MPPT Operating Voltage Range	200 V ~ 950 V	200 V ~ 950 V
Rated Input Voltage	620 V	620 V
Max. Number of Inputs	4	4
Number of MPP Trackers	2	2
Output		
Rated AC Active Power	8,000 W	12,000 W
Max. AC Apparent Power	8,800 VA	13,200 VA
Max. AC Active Power (cosφ=1)	8,800 W	13,200 W
Rated Output Voltage	220V / 380V, 230V / 400V, 3W+N+PE	220V / 380V, 230V / 400V, 3W+N+PE
Rated AC Grid Frequency	50 Hz / 60 Hz	50 Hz / 60 Hz
Max. Output Current	13.4 A	20 A
Adjustable Power Factor	0.8 LG ... 0.8 LD	0.8 LG ... 0.8 LD
Max. Total Harmonic Distortion	< 3%	< 3%
Protection		
Input-side Disconnection Device	Yes	Yes
Anti-Islanding Protection	Yes	Yes
AC Overcurrent Protection	Yes	Yes
DC Reverse-Polarity Protection	Yes	Yes
PV-array String Fault Monitoring	Yes	Yes
DC Surge Arrester	Type II	Type II
AC Surge Arrester	Type II	Type II
Insulation Detection	Yes	Yes
Residual Current Monitoring Unit	Yes	Yes
Communication		
Display	Graphic LCD	Graphic LCD
RS485	Yes	Yes
USB	Yes	Yes
General		
Dimensions (W×H×D, with mounting bracket)	520 x 610 x 266 mm (20.5 x 24.0 x 10.5 inches)	520 x 610 x 266 mm (20.5 x 24.0 x 10.5 inches)
Weight	41 kg (90.4 lb.), without mounting bracket 42 kg (92.6 lb.), with mounting bracket	41 kg (90.4 lb.), without mounting bracket 42 kg (92.6 lb.), with mounting bracket
Operation Temperature Range	-25 °C ~ 60 °C (-13°F ~ 140°F)	-25 °C ~ 60 °C (-13°F ~ 140°F)
Cooling	Natural Convection	Natural Convection
Max. Operating Altitude	3,000 m (9,842 ft.)	3,000 m (9,842 ft.)
Relative Humidity	0~100%	0~100%
DC Connector	Amphenol H4	Amphenol H4
AC Connector	Amphenol C16/3	Amphenol C16/3
Protection Rating	IP65	IP65
Topology	Transformerless	Transformerless
Standards Compliance		
Safety	EN/IEC 62109-1, EN/IEC 62109-2	
Grid Code	IEC 61727, IEC 62116, NB/T 32004-2013, VDE-AR-N-4105, VDE 0126-1-1, BDEW, G83/2 (Only 8KTL), G59/3 (Only 12KTL), UTE C 15-712-1, CEI 0-16, CEI 0-21, C10/11, EN 50438-Ireland, EN 50438-Turkey, AS 4777, PEA (Only 12KTL), MEA (Only 12KTL), NRS 097-2-1	