

# 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 80% time saving for fault detection
- 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 40kg

## Safe

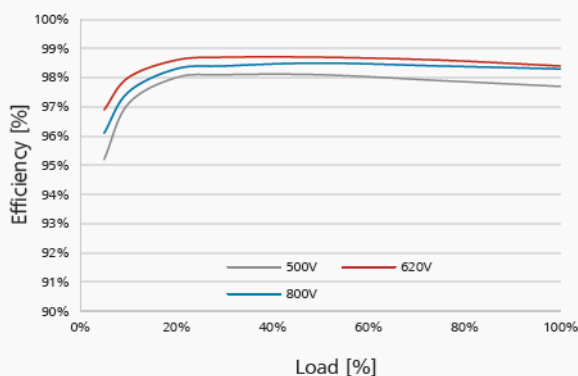
- DC disconnect integrated, safe and convenient for maintenance
- Type II surge arresters for both DC and AC
- Ground fault protection
- Residual Current Detection (RCD) protection

## Reliable

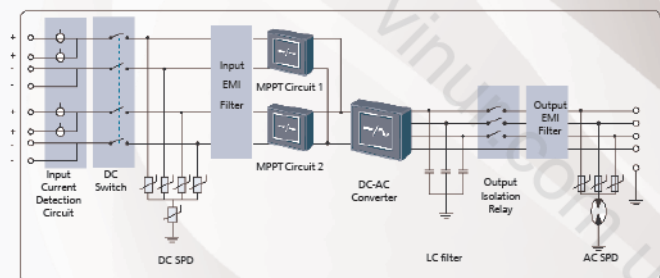
- No need for external fans with natural cooling technology
- Protection rating of IP65



### Efficiency Curve



### Circuit Diagram



SUN2000-8/12KTL

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Technical Specifications	SUN2000-8KTL	SUN2000-12KTL
<b>Efficiency</b>		
Max. Efficiency	98.5%	98.5%
European Efficiency	98.0%	98.0%
<b>Input</b>		
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
<b>Output</b>		
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%
<b>Protection</b>		
Input-side Disconnection Device	Yes	Yes
Anti-Islanding Protection	Yes	Yes
AC Overcurrent Protection	Yes	Yes
DC Overcurrent Protection	Fuseless	Fuseless
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 Monitoring	Yes	Yes
Residual Current Detection	Yes	Yes
<b>Communication</b>		
Display	Graphic LCD	Graphic LCD
RS485	Yes	Yes
USB	Yes	Yes
<b>General</b>		
Dimensions ( W×H×D )	520 x 610 x 255 mm (20.5 x 24.0 x 10.0 inch)	520 x 610 x 255 mm (20.5 x 24.0 x 10.0 inch)
Weight	40 kg (88 lb.)	40 kg (88 lb.)
Operation Temperature Range	-25 °C ~ 60 °C (-13°F ~ 140°F)	-25 °C ~ 60 °C (-13°F ~ 140°F)
Cooling	Natural Convection	Natural Convection
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
Internal Consumption at Night	< 1 W	< 1 W
Topology	Transformerless	Transformerless
Noise Emission (Typical)	<29 dB	<29 dB
<b>Standards Compliance</b>		
Safety / EMC	EN/IEC 61000-6-1, EN/IEC 61000-6-2, EN/IEC 61000-6-3, EN/IEC 61000-6-4, EN/IEC 62109-1, EN/IEC 62109-2	
Grid Code	IEC 61727, IEC 62116, IEC 61683, IEC 60068-2, 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	