

String Inverter (SUN2000-30KTL-US)



Smart

- 6 strings intelligent monitoring and 80% time saving for fault detection
- Real-time operation monitoring
- Adaptive Edge MPPT for fast tracking

Efficient

- Max. efficiency 98.6%, CEC efficiency 98.0%
- Saving AC cable investment up to 20% without N-Line

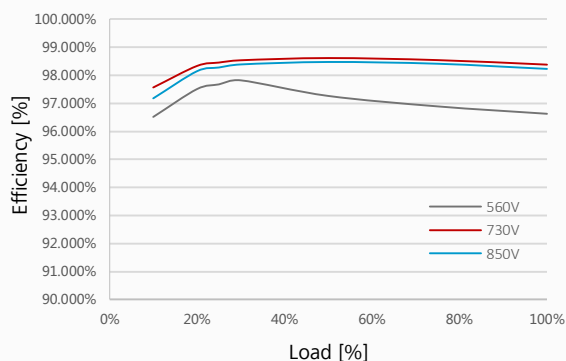
Safe

- Arc fault detection (according to UL 1699B)
- Integrated DC disconnect, safe and convenient for maintenance
- Ground fault protection
- Category C surge arrester for both DC and AC

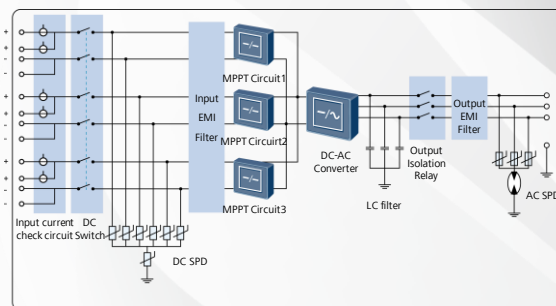
Reliable

- Warranty up to 25 years
- No need for external fan with natural cooling technology
- Outdoor application of NEMA 4
- Category C surge arrester for both DC and AC

Efficiency Curve



Circuit Diagram



SUN2000-30KTL-US

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Technical Specifications	SUN2000-30KTL-US
	Efficiency
Max. Efficiency	98.6%
CEC Efficiency	98.0%
	Input
Max. DC power	30,800 W
Max. Input Voltage	1,000 V
Max. Current per MPPT	25A
Min. Operating Voltage	200 V
MPP Voltage Range @ Full Load	560 V~850 V
Rated Input Voltage	720 V
Max. Number of Inputs	6
Number of MPP Trackers	3
	Output
Rated AC Output Power	30,000 W
Max. AC Output Power	33,000 VA
Max. Active Power (cos ϕ =1)	30,000 W
Rated Output Voltage	277V/480V, 3W+PE/3W+N+PE
AC power frequency	60 Hz
Max. Output Current	40 A
Adjustable Power Factor	0.8 LG ... 0.8 LD
Max. Total Harmonic Distortion	< 3%
	Protection
Input-side Disconnection Device	Yes
Anti-Islanding Protection	Yes
AC Over Current Protection	Yes
DC Over current Protection	Fuseless
DC Reverse-polarity Protection	Yes
PV-array String Fault Monitoring	Yes
DC Surge Arresters	Category C
AC Surge Arresters	Category C
Insulation Monitoring	Yes
Residual Current Detection	Yes
	Communication
RS485	Yes
USB	Yes
	General
Dimensions (W×H×D)	550×770×270 mm (21.7×30.3×10.6 inch)
Weight	55 kg (121 lb)
Operation Temperature Range	-25 °C ~ 60 °C (-13°F - 140°F)
Cooling	Natural Convection
Operating Altitude	4,000 m (13,123 ft)
Relative Humidity (Non-condensing)	0~100%
DC Connectors	Amphenol H4
AC Connectors	Waterproof PG Terminal + OT Connector
Degree of Protection	NEMA 4
Self-consumption at Night	< 1 W
Topology	Transformerless
Noise Emission	33 dB
Warranty	10 years, 15/20/25 years optional
	Standards Compliance
Safety/EMC	UL 1741, UL 1699B, UL 1998, IEEE 1547, CSA C22.2 #107.1-01, FCC Part 15
Grid Code	IEEE 1547, IEEE1547.1