

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

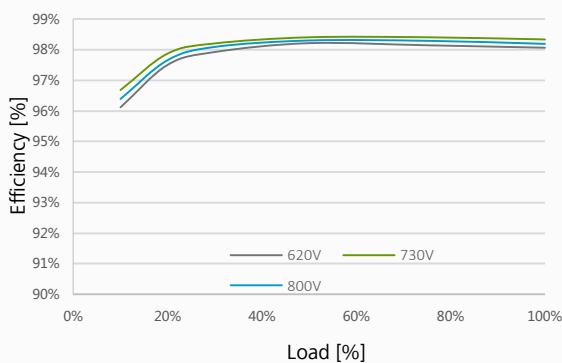
- DC AFCI compliant to UL 1699B
- DC disconnect Integrated, safe and convenient for maintenance
- Ground fault protection
- Category C surge arresters for both DC and AC

Reliable

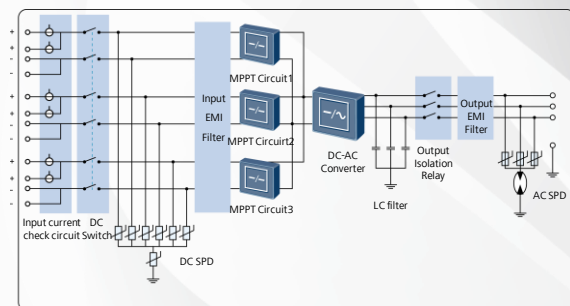
- No need for external fans with natural cooling technology
- Outdoor application of NEMA 4X



Efficiency Curve



Circuit Diagram



SUN2000-30KTL-US



String Inverter (SUN2000-30KTL-US)



| Technical Specifications | SUN2000-30KTL-US |
|----------------------------------|-------------------------------------------------------------------------|
| | Efficiency |
| Max. Efficiency | 98.6% |
| CEC Efficiency | 98.0% |
| | Input |
| Max. DC Voltage | 1,000 V |
| Max. Current per MPPT | 25A |
| Min. Operating Voltage | 200 V |
| Full Power MPPT Voltage Range | 560 V~850 V |
| MPPT Operating Voltage Range | 200 V~950 V |
| Rated Input Voltage | 730 V |
| Max. Number of Inputs | 6 |
| Number of MPP Trackers | 3 |
| | Output |
| Rated AC Power | 30,000 W |
| Max. AC Apparent Power | 33,000 VA |
| Max. AC Active Power (cosφ=1) | 30,000 W |
| Rated Output Voltage | 277V/480V, 3W+PE/3W+N+PE |
| Rated AC Grid Frequency | 60 Hz |
| Max. Output Current | 40 A |
| Adjustable Power Factor | 0.8 LG ... 0.8 LD |
| Max. Total Harmonic Distortion | < 3% |
| | Protection |
| DC AFCI Compliant to UL 1699B | Yes |
| Input-side Disconnection Device | Yes |
| Anti-Islanding Protection | Yes |
| AC Overcurrent Protection | Yes |
| DC Overcurrent Protection | Fuseless |
| DC Reverse-Polarity Protection | Yes |
| PV-array String Fault Monitoring | Yes |
| DC Surge Arrester | Category C |
| AC Surge Arrester | 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 | 0~100% |
| DC Connector | Amphenol H4 |
| AC Connector | Waterproof PG Terminal + OT Connector |
| Protection Rating | NEMA 4X |
| Internal Consumption at Night | < 1 W |
| Topology | Transformerless |
| Noise Emission (Typical) | <33 dB |
| | 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, IEEE 1547.1 |

