

# Smart String Inverter

SUN2000-33/36/40KTL-US



## Smart

- 8 strings intelligent monitoring and fast trouble-shooting
- Power Line Communication (PLC) supported
- Smart I-V Curve Diagnosis supported

## Efficient

- Max. efficiency 98.9%
- CEC. efficiency 98.5%
- 4 MPPT per unit, effectively reducing string mismatch

## Safe

- DC AFCI compliant to UL 1699B Type I
- Residual Current Monitoring Unit (RCMU) integrated inside
- Fuse free design

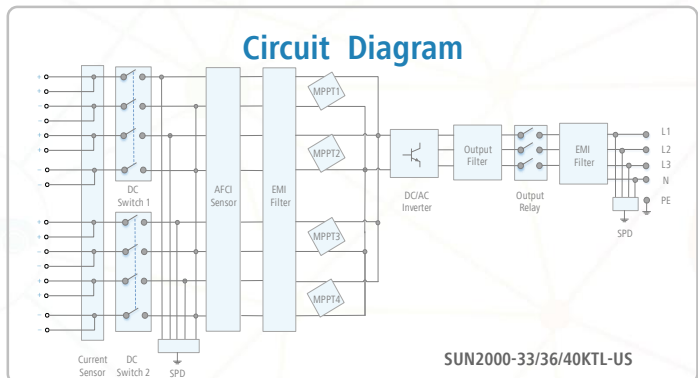
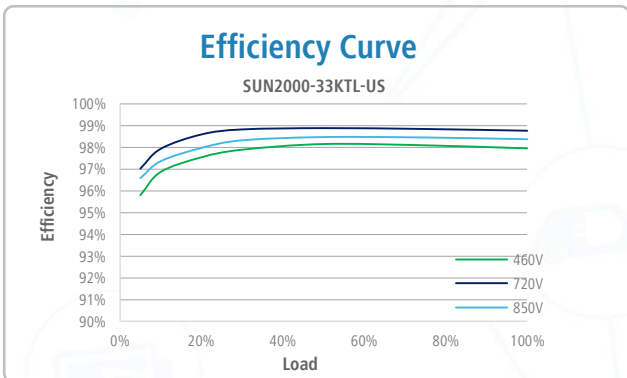
## Reliable

- Natural cooling technology
- Protection degree of Type 4X
- Type II surge arresters for both DC and AC

# Smart String Inverter (SUN2000-33/36/40KTL-US)



| Technical Specifications                                 | SUN2000-33KTL-US  | SUN2000-36KTL-US             | SUN2000-40KTL-US             |
|--|---|------------------------------|------------------------------|
| <b>Efficiency</b>  |   |                              |                              |
| Max. Efficiency  | 98.9%   | 98.9%                        | 98.9%                        |
| CEC Efficiency   | 98.5%   | 98.5%                        | 98.5%                        |
| <b>Input</b>   |   |                              |                              |
| Max. Input Voltage                                       | 1,000 V   | 1,000 V                      | 1,000 V                      |
| Max. Current per MPPT                                    | 22 A  | 22 A                         | 22 A                         |
| Max. Short Circuit Current per MPPT                      | 30 A  | 30 A                         | 30 A                         |
| Start Voltage  | 250 V   | 250 V                        | 250 V                        |
| MPPT Operating Voltage Range                             | 200 V ~ 1,000 V   | 200 V ~ 1,000 V              | 200 V ~ 1,000 V              |
| Number of Inputs   | 8   | 8                            | 8                            |
| Number of MPP Trackers                                   | 4   | 4                            | 4                            |
| <b>Output</b>  |   |                              |                              |
| Rated AC Active Power                                    | 33,300 W  | 36,000 W                     | 40,000 W                     |
| Max. AC Apparent Power                                   | 36,600 VA   | 40,000 VA                    | 44,000 VA                    |
| Max. AC Active Power (cosφ=1)                            | 36,600 W  | 40,000 W                     | 44,000 W                     |
| Rated Output Voltage                                     | 480 V, 3W + PE / 3W + N + PE                                    | 480 V, 3W + PE / 3W + N + PE | 480 V, 3W + PE / 3W + N + PE |
| Rated AC Grid Frequency                                  | 60 Hz   | 60 Hz                        | 60 Hz                        |
| Rated Output Current                                     | 40.1 A  | 43.4 A                       | 48.2 A                       |
| Max. Output Current                                      | 44.1 A  | 48.2 A                       | 53 A                         |
| Adjustable Power Factor Range                            | 0.8 LG ... 0.8 LD   | 0.8 LG ... 0.8 LD            | 0.8 LG ... 0.8 LD            |
| Max. Total Harmonic Distortion                           | < 3%  | < 3%                         | < 3%                         |
| <b>Protection</b>  |   |                              |                              |
| DC Arc Fault Circuit Interrupter                         | Yes, compliant to UL 1699B Type I                               |                              |                              |
| Input-side Disconnection Device                          | Yes   |                              |                              |
| Anti-islanding Protection                                | Yes   |                              |                              |
| DC Reverse-polarity Protection                           | Yes   |                              |                              |
| AC Overcurrent 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   |                              |                              |
| <b>Communication</b>                                     |   |                              |                              |
| Display  | LED Indicators, Bluetooth + APP                                 |                              |                              |
| USB  | Yes   |                              |                              |
| RS485  | Yes   |                              |                              |
| Power Line Communication (PLC)                           | Yes   |                              |                              |
| <b>General</b>   |   |                              |                              |
| Dimensions (W x H x D)                                   | 930 x 550 x 283 mm (36.6 x 21.7 x 11.1 inch)                    |                              |                              |
| Weight (with mounting plate)                             | 62 kg (137 lb.)   |                              |                              |
| Operating Temperature Range                              | -25°C ~ 60°C (-13°F ~ 140°F)                                    |                              |                              |
| Cooling Method   | Natural Convection  |                              |                              |
| Relative Humidity  | 0 ~ 100%  |                              |                              |
| DC Connector   | Amphenol Helios H4 or MC4                                       |                              |                              |
| AC Connector   | Waterproof PG Terminal + OT Connector                           |                              |                              |
| Protection Degree  | Type 4X   |                              |                              |
| Topology   | Transformerless   |                              |                              |
| <b>Standard Compliance (more available upon request)</b> |   |                              |                              |
| Certificate  | UL 1741, UL 1699B, UL 1741 SA, CSA C22.2 #107.1-01, FCC Part 15 |                              |                              |
| Grid Code  | IEEE 1547, IEEE 1547a   |                              |                              |



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