

String Inverter (8-23KTL)



SUN2000-8/12/17/20/23KTL



Smart

- Maximum of 3 MPPT for versatile adaption to different module types or quantities built up with different alignments
- Up to 6 strings intelligent monitoring and fault detection
- RS 485 and USB ports for connectivity and data management
- Local graphic LCD and remote monitoring

Efficient

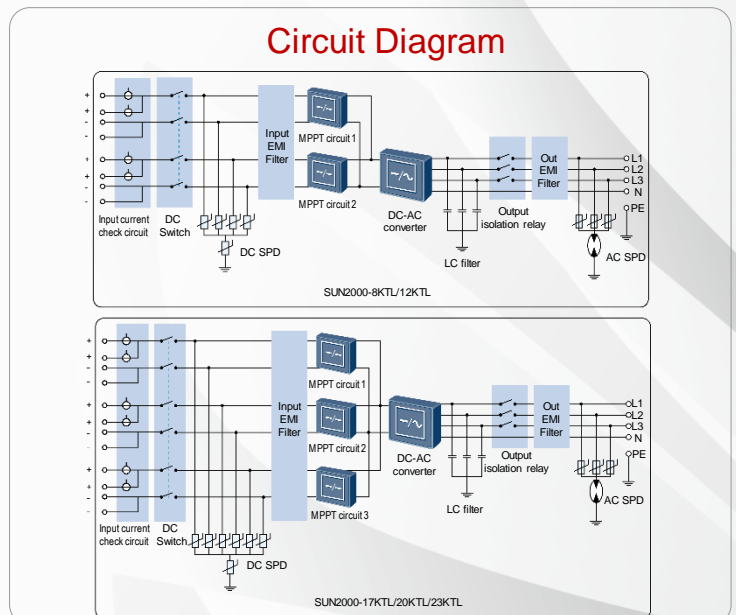
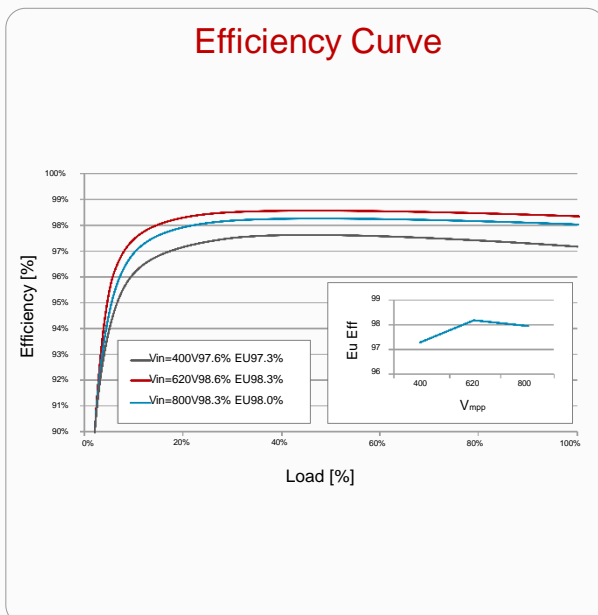
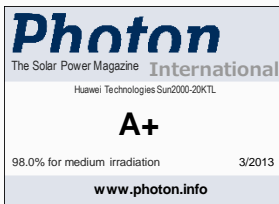
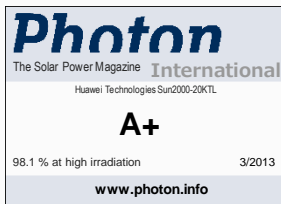
- SUN2000-20KTL Photon test result: A+/A+ at medium and high irradiation
- Maximum efficiency 98.6%
- European efficiency 98.3%

Safe

- Type II DC and AC surge protection devices integrated
- Noise ≤ 29 dB, Class-B electromagnetic radiation
- RCD protection function

Reliable

- Warranty up to 25 years
- No need of external fan with natural cooling technology
- Outdoor application of IP65



String Inverter (8-23KTL)



| Technical Specifications | SUN2000-8KTL | SUN2000-12KTL | SUN2000-17KTL | SUN2000-20KTL | SUN2000-23KTL |
|-------------------------------------|--|--|--|--|--|
| Efficiency | | | | | |
| Max. efficiency | 98.5% | 98.5% | 98.6% | 98.6% | 98.6% |
| European efficiency | 98.0% | 98.0% | 98.3% | 98.3% | 98.3% |
| Input | | | | | |
| Max. DC input | 9,100 W | 13,700 W | 19,200 W | 22,500 W | 23,600 W |
| Max. input voltage | 1000 V | 1000 V | 1000 V | 1000 V | 1000 V |
| Max. input current per MPPT | 18 A | 18 A | 18 A | 18 A | 18 A |
| Max. short circuit current per MPPT | 25 A | 25 A | 25 A | 25 A | 25 A |
| Operating voltage range | 200 V - 950 V | 200 V - 950 V | 200 V - 950 V | 200 V - 950 V | 200 V - 950 V |
| MPP voltage range at full loading | 320 V - 800 V | 380 V - 800 V | 400 V - 800 V | 480 V - 800 V | 480 V - 800 V |
| Rated input voltage | 620 V | 620 V | 620 V | 620 V | 620 V |
| Max. number of inputs | 4 | 4 | 6 | 6 | 6 |
| Number of MPP trackers | 2 | 2 | 3 | 3 | 3 |
| Output | | | | | |
| Rated output power | 8,000 W | 12,000 W | 17,000 W | 20,000 W | 23,000 W |
| Max. apparent output power | 8,800 VA | 13,200 VA | 18,700 VA | 22,000 VA | 23,000 VA |
| Rated output voltage | 3×230V/400V+N+PE 3×220V/380V+N+PE | 3×230V/400V+N+PE 3×220V/380V+N+PE | 3×230V/400V+N+PE 3×220V/380V+N+PE | 3×230V/400V+N+PE 3×220V/380V+N+PE | 3×230V/400V+N+PE 3×220V/380V+N+PE |
| AC power frequency | 50 Hz/60 Hz | 50 Hz/60 Hz | 50 Hz/60 Hz | 50 Hz/60 Hz | 50 Hz/60 Hz |
| Max. output current | 12.8 A | 19.2 A | 27.2 A | 32 A | 33.5 A |
| Adjustable power factor | 0.8 leading ... 0.8 lagging | 0.8 leading ... 0.8 lagging | 0.8 leading ... 0.8 lagging | 0.8 leading ... 0.8 lagging | 0.8 leading ... 0.8 lagging |
| Max. total harmonic distortion | <3% | <3% | <3% | <3% | <3% |
| Protection | | | | | |
| Input-side disconnection protection | Yes | Yes | Yes | Yes | Yes |
| Anti-Islanding protection | Yes | Yes | Yes | Yes | Yes |
| AC over current protection | Yes | Yes | Yes | Yes | Yes |
| DC reverse-polarity protection | Yes | Yes | Yes | Yes | Yes |
| PV array string fault monitoring | Yes | Yes | Yes | Yes | Yes |
| DC surge arresters | Type II | Type II | Type II | Type II | Type II |
| AC surge arresters | Type II | Type II | Type II | Type II | Type II |
| Insulation monitoring | Yes | Yes | Yes | Yes | Yes |
| Residual current detection | Yes | Yes | Yes | Yes | Yes |
| Display and Communication | | | | | |
| Display | Graphic LCD | Graphic LCD | Graphic LCD | Graphic LCD | Graphic LCD |
| RS485 | Yes | Yes | Yes | Yes | Yes |
| USB | Yes | Yes | Yes | Yes | Yes |
| General Data | | | | | |
| Dimensions(W/H/D) | 520 x 610 x 255 mm (20.5 x 24.0 x 10.0 in.) | 520 x 610 x 255 mm (20.5 x 24.0 x 10.0 in.) | 520 x 610 x 255 mm (20.5 x 24.0 x 10.0 in.) | 520 x 610 x 255 mm (20.5 x 24.0 x 10.0 in.) | 520 x 610 x 255 mm (20.5 x 24.0 x 10.0 in.) |
| Weight | 40 kg | 40 kg | 48 kg | 48 kg | 48 kg |
| Operating temperature range | -25 °C to +60 °C (-13 °F to +140 °F) | -25 °C to +60 °C (-13 °F to +140 °F) | -25 °C to +60 °C (-13 °F to +140 °F) | -25 °C to +60 °C (-13 °F to +140 °F) | -25 °C to +60 °C (-13 °F to +140 °F) |
| Cooling | Natural convection | Natural convection | Natural convection | Natural convection | Natural convection |
| Operating altitude | 3000 m | 3000 m | 3000 m | 3000 m | 3000 m |
| Relative humidity (non-condensing) | 0 - 100% | 0 - 100% | 0 - 100% | 0 - 100% | 0 - 100% |
| DC connector | Amphenol H4 | Amphenol H4 | Amphenol H4 | Amphenol H4 | Amphenol H4 |
| AC connector | Amphenol C16/3 | Amphenol C16/3 | Amphenol C16/3 | Amphenol C16/3 | Amphenol C16/3 |
| Degree of protection | IP65 | IP65 | IP65 | IP65 | IP65 |
| Self-consumption at night | < 1 W | < 1 W | < 1 W | < 1 W | < 1 W |
| Topology | Transformerless | Transformerless | Transformerless | Transformerless | Transformerless |
| Noise emission | ≤ 29 dB | ≤ 29 dB | ≤ 29 dB | ≤ 29 dB | ≤ 29 dB |
| Warranty | 5 years 10/15/20/25 years optional | 5 years 10/15/20/25 years optional | 5 years 10/15/20/25 years optional | 5 years 10/15/20/25 years optional | 5 years 10/15/20/25 years optional |
| Standards Compliance | | | | | |
| Safety/EMC | EN61000-6-2, EN61000-6-3, EN61000-3-2, EN61000-3-3, EN61000-3-11, EN61000-3-12, EN/IEC62109-1, EN/IEC62109-2 | | | | |
| Grid Code | VDE-AR-N4105, VDE0126-1-1, BDEW 2008, Enel-Guideline, CEI 0-21, G59/3, G83/2, AS4777, CGC/GF004:2011, IEC61727, IEC62116, RD1669, UTE C 15-712-1 | | | | |

Always Available for Highest Yields

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