

SUN2000-100KTL-M2 Smart PV Controller



10
MPP Trackers



98.8% (@480V)
Max. Efficiency



String-level
Management



Smart I-V Curve Diagnosis
Supported



MBUS
Supported



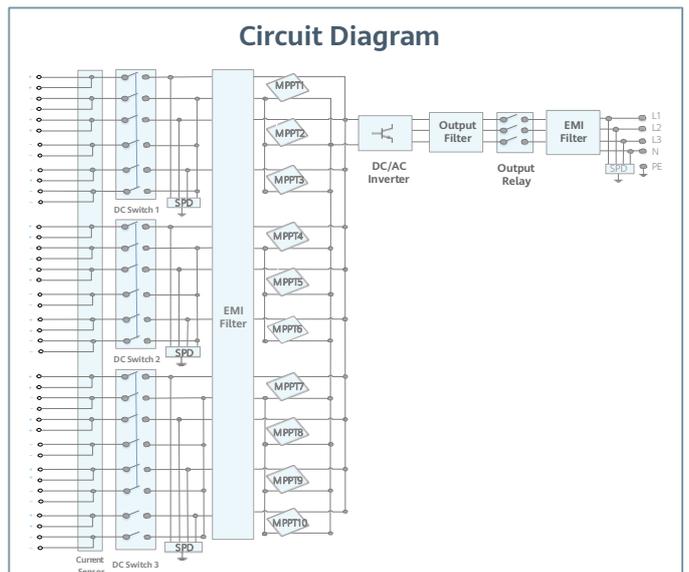
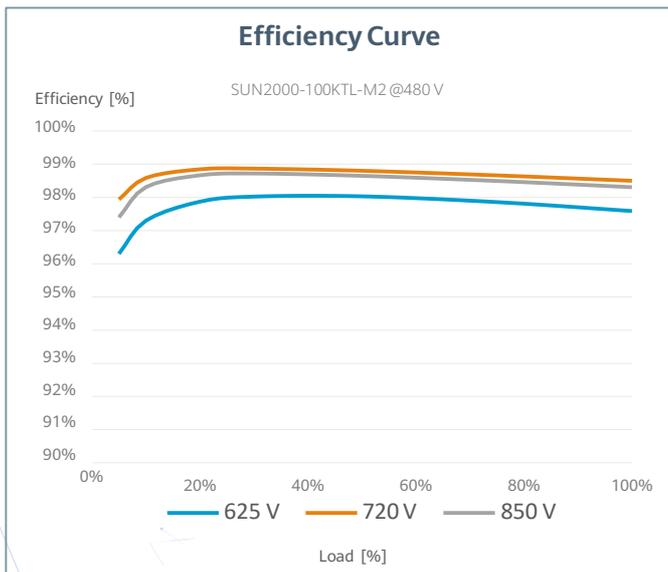
Support AFCI &
Smart String Level
Disconnecter



Surge Arresters for
DC & AC



IP66
Protection



Technical Specification SUN2000-100KTL-M2

| Efficiency | |
|---------------------|------------------------------|
| Max. efficiency | 98.6% @ 400 V, 98.8% @ 480 V |
| European efficiency | 98.4% @ 400 V, 98.6% @ 480 V |

| Input | |
|---|----------------------------------|
| Max. Input Voltage ¹ | 1,100 V |
| Max. Current per MPPT | 30 A |
| Max. Current per Input | 20 A |
| Max. Short Circuit Current per MPPT | 40 A |
| Start Voltage | 200 V |
| MPPT Operating Voltage Range ² | 200 V ~ 1,000 V |
| Nominal Input Voltage | 600 V @ 400 Vac, 720 V @ 480 Vac |
| Number of MPP trackers | 10 |
| Max. input number per MPP tracker | 2 |

| Output | |
|--------------------------------|----------------------------------|
| Nominal AC Active Power | 100,000 W |
| Max. AC Apparent Power | 110,000 VA |
| Max. AC Active Power (cosφ=1) | 110,000 W |
| Nominal Output Voltage | 400 V/ 480 V, 3W+(N)+PE |
| Rated AC Grid Frequency | 50 Hz / 60 Hz |
| Nominal Output Current | 144.4 A @ 400 V, 120.3 A @ 480 V |
| Max. Output Current | 160.4 A @ 400 V, 133.7 A @ 480 V |
| Adjustable Power Factor Range | 0.8 leading... 0.8 lagging |
| Max. Total Harmonic Distortion | < 3% |

| Protection | |
|------------------------------------|---------|
| Input-side Disconnection Device | Yes |
| Anti-islanding Protection | Yes |
| AC Overcurrent Protection | Yes |
| DC Reverse-polarity 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 |
| Arc Fault Protection | Yes |
| Smart String Level Disconnecter | Yes |

| Communication | |
|-----------------------|--|
| Display | LED indicators; WLAN adaptor + FusionSolar APP |
| RS485 | Yes |
| USB | Yes |
| Smart Dongle-4G | 4G / 3G / 2G via Smart Dongle – 4G (Optional) |
| Monitoring BUS (MBUS) | Yes (isolation transformer required) |

| General Data | |
|------------------------------|---------------------------------------|
| Dimensions (W x H x D) | 1,035 x 700 x 365 mm |
| Weight (with mounting plate) | 93 kg |
| Operating Temperature Range | -25°C ~ 60°C |
| Cooling Method | Smart Air Cooling |
| Max. Operating Altitude | 4,000 m (13,123 ft.) |
| Relative Humidity | 0 ~ 100% |
| DC Connector | Amphenol HH4 |
| AC Connector | Waterproof Connector + OT/DT Terminal |
| Protection Degree | IP66 |
| Topology | Transformerless |
| Nighttime Power Consumption | < 3.5 W |

| Standard Compliance (more available upon request) | |
|---|---|
| Certificate | EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 61727, IEC 60068, IEC 61683 |
| Grid Connection Standards ³ | VDE-AR-N4105, EN 50549-1, EN 50549-2, RD 661, RD 1699, C10/11 |

¹ The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.

² Any DC input voltage beyond the operating voltage range may result in inverter improper operating.

SUN2000-115KTL-M2 Smart PV Controller



10
MPP Trackers



98.8% (@480V)
Max. Efficiency



String-level
Management



Smart I-V Curve Diagnosis
Supported



MBUS
Supported



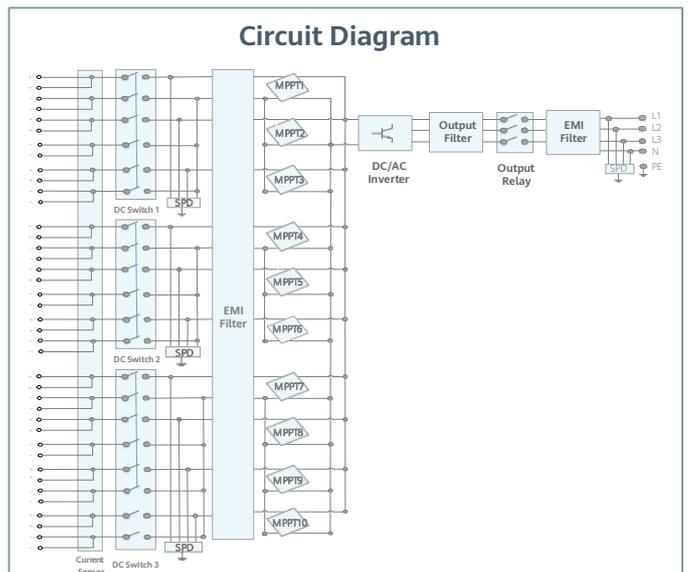
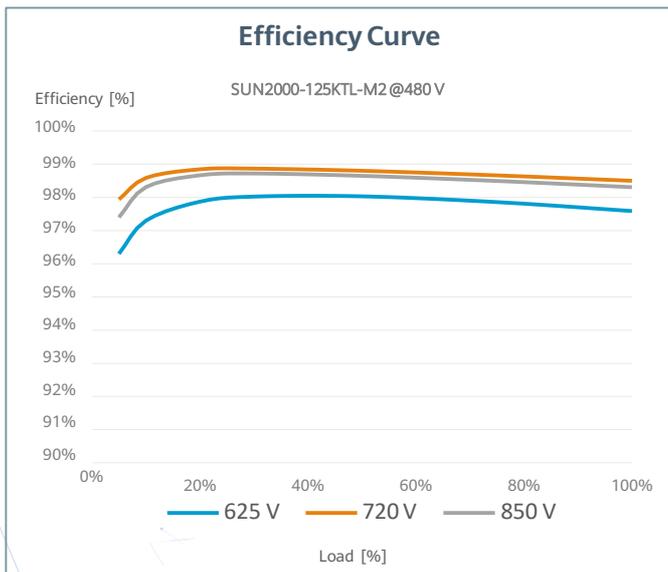
Support
Smart String Level
Disconnecter



Surge Arresters for
DC & AC



IP66
Protection



Technical Specification

SUN2000-115KTL-M2

Efficiency

| | |
|---------------------|----------------------------|
| Max. efficiency | 98.6% @400 V, 98.8% @480 V |
| European efficiency | 98.4% @400 V, 98.6% @480 V |

Input

| | |
|---|--------------------------------|
| Max. Input Voltage ¹ | 1,100 V |
| Max. Current per MPPT | 30 A |
| Max. Current per Input | 20 A |
| Max. Short Circuit Current per MPPT | 40 A |
| Start Voltage | 200 V |
| MPPT Operating Voltage Range ² | 200 V ~ 1,000 V |
| Nominal Input Voltage | 600 V @400 Vac, 720 V @480 Vac |
| Number of MPP trackers | 10 |
| Max. input number per MPP tracker | 2 |

Output

| | |
|--------------------------------|--------------------------------|
| Nominal AC Active Power | 115,000 W |
| Max. AC Apparent Power | 125,000 VA |
| Max. AC Active Power (cosφ=1) | 125,000 W |
| Nominal Output Voltage | 400 V / 480 V, 3W+(N)+PE |
| Rated AC Grid Frequency | 50 Hz / 60 Hz |
| Nominal Output Current | 166.0 A @400 V, 138.4 A @480 V |
| Max. Output Current | 182.3 A @400 V, 151.9 A @480 V |
| Adjustable Power Factor Range | 0.8 leading... 0.8 lagging |
| Max. Total Harmonic Distortion | < 3% |

Protection

| | |
|------------------------------------|---------|
| Input-side Disconnection Device | Yes |
| Anti-islanding Protection | Yes |
| AC Overcurrent Protection | Yes |
| DC Reverse-polarity 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 |
| Smart String Level Disconnecter | Yes |

Communication

| | |
|-----------------------|--|
| Display | LED indicators; WLAN adaptor + FusionSolar APP |
| RS485 | Yes |
| USB | Yes |
| Smart Dongle-4G | 4G / 3G / 2G via Smart Dongle - 4G (Optional) |
| Monitoring BUS (MBUS) | Yes (isolation transformer required) |

General Data

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| Dimensions (W x H x D) | 1,035 x 700 x 365 mm |
| Weight (with mounting plate) | 93 kg |
| Operating Temperature Range | -25°C ~ 60°C |
| Cooling Method | Smart Air Cooling |
| Max. Operating Altitude | 4,000 m (13,123 ft.) |
| Relative Humidity | 0 ~ 100% |
| DC Connector | Staubli MC4 |
| AC Connector | Waterproof Connector + OT/DT Terminal |
| Protection Degree | IP66 |
| Topology | Transformerless |
| Nighttime Power Consumption | < 3.5 W |

Standard Compliance (more available upon request)

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|---------------------------|---|
| Certificate | EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 61727, IEC 60068, IEC 61683 |
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