

Smart Energy Controller

SUN2000-30/36/40KTL-M3



Smart

8 strings intelligent monitoring



Efficient

Max. efficiency 98.7%



Safe

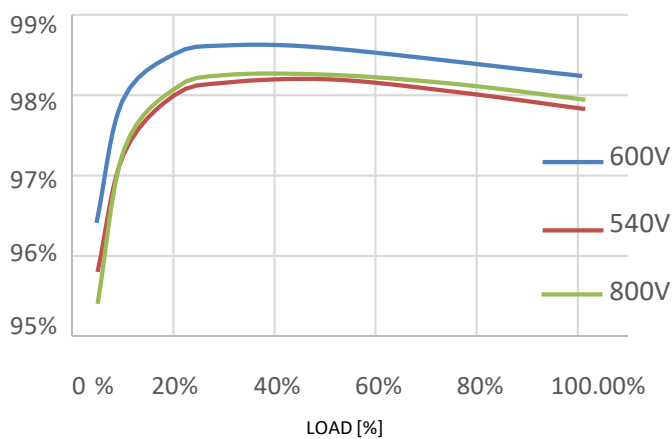
Fuse free design



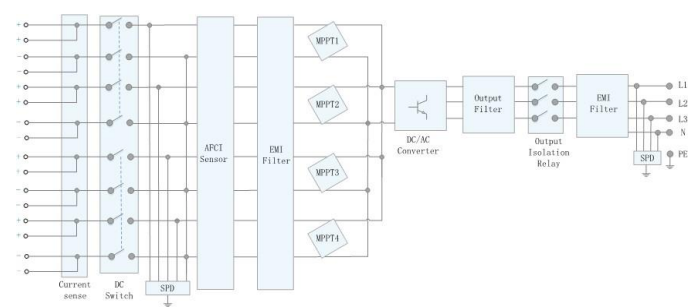
DC Surge protection

Type I + Type II

Efficiency Curve



Circuit Diagram



SUN2000-30/36/40KTL-M3

Technical Specification

SUN2000	-30KTL-M3	-36KTL-M3	-40KTL-M3
Efficiency			
Max. Efficiency	98.7%		
European Efficiency	98.4%		
Input			
Max. Input Voltage ¹	1100 V		
Max. Current per MPPT	27 A (per MPPT) / 20 A (per Input)		
Max. Short Circuit Current per MPPT	40 A		
Start Voltage	200 V		
MPPT Operating Voltage Range ²	200 V - 1000 V		
Rated Input Voltage	600 V		
Number of Inputs	8		
Number of MPP Trackers	4		
Output			
Rated AC Active Power	30000 W	36000 W	40000 W
Max. AC Apparent Power	33000 VA ³	40000 VA	44000 VA
Rated Output Voltage	230 Vac / 400 Vac, 3W/N+PE		
Rated AC Grid Frequency	50 Hz		
Rated Output Current	43.3 A	52.0 A	57.8 A
Max. Output Current	47.9 A	58.0 A	63.8 A
Adjustable Power Factor Range	0.8 LG ... 0.8 LD		
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		
AC Surge Arrester	Yes		
DC Insulation Resistance Detection	Yes		
Residual Current Monitoring Unit	Yes		
Arc Fault Protection	Yes		
Ripple Receiver Control	Yes		
Integrated PID Recovery ³	Yes		
DC Surge protection ⁴	Type I + II		
Communication			
Display	LED Indicators, Integrated WLAN + FusionSolar APP		
RS485	Yes		
Smart Dongle	WLAN/Ethernet via Smart Dongle-WLAN-FE (Optional) 4G / 3G / 2G via Smart Dongle-4G (Optional)		
General Data			
Dimensions (W x H x D)	640 x 530 x 270 mm		
Weight (with mounting plate)	43 kg		
Operating Temperature Range	-25°C to + 60°C		
Cooling Method	Natural Convection		
Max. Operating Altitude	4000 m (Derating above 2000 m)		
Relative Humidity	0% RH - 100% RH		
DC Connector	Amphenol Helios H4		
AC Connector	Waterproof Connector + OT/DT Terminal		
Protection Degree	IP 66		
Topology	Transformerless		
Nighttime Power Consumption	≤ 5.5W		
Optimizer Compatibility			
DC MBUS Compatible Optimizer	SUN2000-450W-P2, SUN2000-600W-P, MERC-1100W/1300W-P		
Standard Compliance (more available upon request)			
Safety	EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 60068, IEC 61683		
Grid Connection Standards	IEC 61727, VDE-AR-N4105, VDE 0126-1-1, BDEW, G59/3, UTE C 15-712-1, CEI 0-16, CEI 0-21, RD 661, RD 1699, P.O. 12.3, RD 413, EN-50438-Turkey, EN-50438-Ireland, C10/11, MEA, Resolution No.7, NRS 097-2-1, AS/NZS 4777.2, DEWA		

*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.

*3. SUN2000-30-40KTL-M3 raises potential between PV- and ground to above zero through integrated PID recovery function to recover module degradation from PID. Supported module types include: P-type (mono, poly).

*4. SPD Type I+II for inverters with a manufacturing date after 09/01/2024, see self-declaration for more details

Disclaimer: the preceding values are measured by an internal laboratory of Huawei in a specific environment. The actual values may vary with products, software versions, usage conditions, and environmental factors.