SUN2000-50KTL-M3 Smart PV Controller









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SUN2000-50KTL-M3 **Technical Specification**

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	Efficiency
Max. Efficiency	98.5%
European Efficiency	98.0%
	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
Rated Input Voltage	600 V
Number of Inputs Number of MPP Trackers	8 4
Number of MPP Trackers	4
	Output
Rated AC Active Power	50,000 W
Max. AC Apparent Power	55,000 VA
Max. AC Active Power (cosφ=1)	55,000 W
Rated Output Voltage	400 Vac / 480 Vac, 3W+(N) + PE
Rated AC Grid Frequency	50 Hz / 60 Hz
Rated Output Current	72.2 A @ 400Vac, 60.1 A @ 480Vac
Max. Output Current	79.8 A @ 400Vac, 66.5 A @ 480Vac
Adjustable Power Factor Range	0.8 LG 0.8 LD
Max. Total Harmonic Distortion	<3%
	Drotostian
Input-side Disconnection Device	Protection
Anti-islanding Protection	Yes
AC Overcurrent Protection	Yes
DC Reverse-polarity Protection	Yes
PV-array String Fault Monitoring	Yes
DC Surge Arrester	Туре II
AC Surge Arrester	Туре II
DC Insulation Resistance Detection	Yes
Residual Current Monitoring Unit	Yes
Arc Fault Protection	Yes
Ripple Receiver Control Integrated PID Recovery ³	Yes
Integrated PID Recovery 3	Tes
	Communication
Display	LED Indicators, Bluetooth + APP
RS485	Yes WLAN/Ethernet via Smart Dongle-WLAN-FE (Optional)
Smart Dongle	4G / 3G / 2G via Smart Dongle-4G (Optional)
Monitoring BUS (MBUS)	Yes (Isolation Transformer required)
	Optimizer Compatibility
DC MBUS Compatible Optimizer	MERC-1100/1300W-P
De Mbos compatible Optimizer	WERC-1100/130000-F
	General Data
Dimensions (W x H x D)	640 x 530 x 270 mm (25.2 x 20.9 x 10.6 inch)
Weight (with mounting plate)	49 kg (108.1 lb)
Operating Temperature Range	-25°C ~ 60°C (-13°F ~ 140°F)
Cooling Method	Smart Air Cooling
Max. Operating Altitude	4,000 m (13,123 ft.)
Relative Humidity	0% RH ~ 100% RH
DC Connector	Amphenol HH4
AC Connector	Waterproof Connector + OT/DT Terminal
Protection Degree	IP 66
Topology	Transformerless
Nighttime Power Consumption	≤ 5.5W
	Standard Compliance (more available upon request)
Safety	Standard Compliance (more available upon request) EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 60068, IEC 61683
Jurety	EN 02109-1/-2, EC 02109-1/-2, EN 50530, EC 02110, EC 00008, EC 01083

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, DEWA

Grid Connection Standards

NRS 097-2-1, DEWA

The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.
Solution and the operating voltage beyond the operating voltage range may result in inverter improper operating.
SUN2000-30-50KTL-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), N-type (nPERT, HIT)

SUN2000-10 - SOKTL Platform only supports C&I Optimizer(MERC-1100/1300W-P). The current version does not support this function and it can be upgraded to optimizer version via new inverter software version(Dec 30th, 2022)
Refer to HTTP://solar.Huawei.com/