

# Smart PV Controller

## SUN2000-50/60KTL-M0



### Smart

12 strings intelligent monitoring



### Efficient

Max. efficiency 98.7%



### Safe

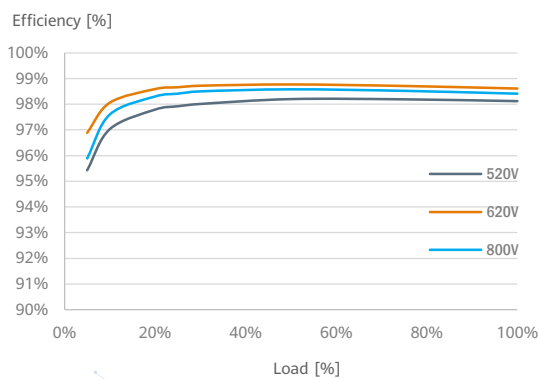
Fuse free design



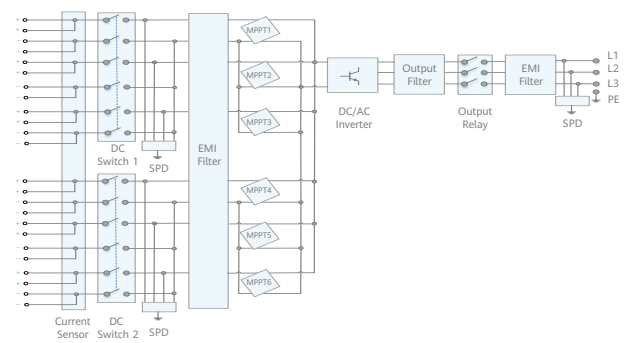
### Reliable

Type II surge arresters for DC & AC

### Efficiency Curve



### Circuit Diagram



SUN2000-50/60KTL-M0

Technical Specification	SUN2000-50KTL-M0	SUN2000-60KTL-M0
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Efficiency		
Max. Efficiency	98.7%	98.9% @480 V; 98.7% @380 V / 400 V
European Efficiency	98.5%	98.7% @480 V; 98.5% @380 V / 400 V

Input		
Recommended max. PV power	75,000 Wp	90,000Wp
Max. Input Voltage		1,100 V
Max. Current per MPPT		22 A
Max. Short Circuit Current per MPPT		30 A
Start Voltage		200 V
MPPT Operating Voltage Range		200 V ~ 1,000 V
Rated Input Voltage	600 V	600 V @380 Vac / 400 Vac; 720 V @480 Vac
Number of Inputs		12
Number of MPP Trackers		6

Output		
Rated AC Active Power	50,000 W	60,000 W
Max. AC Apparent Power	55,000 VA	66,000 VA
Max. AC Active Power (cosφ=1)	55,000 W	66,000 W
Rated Output Voltage	220 V / 380 V, 230 V / 400 V, default 3W + N + PE; 3W + PE optional in settings	220 V / 380 V, 230 V / 400 V, default 3W + N + PE; 3W + PE optional in settings; 277 V / 480 V, 3W + PE
Rated AC Grid Frequency		50 Hz / 60 Hz
Rated Output Current	76 A @380 V / 72.2 A @400 V	91.2 A @380 V, 86.7 A @400 V, 72.2 A @480 V
Max. Output Current	83.6 A @380 V / 79.4 A @400 V	100 A @380 V, 95.3 A @400 V, 79.4 A @480 V
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
DC Surge Arrester	Type II
AC Surge Arrester	Type II
DC Insulation Resistance Detection	Yes
Residual Current Monitoring Unit	Yes

Communication	
Display	LED Indicators, Bluetooth + APP
RS485	Yes
USB	Yes
Monitoring BUS (MBUS)	Yes

General Data	
Dimensions (W x H x D)	1,075 x 555 x 300 mm (42.3 x 21.9 x 11.8 inch)
Weight (with mounting plate)	74 kg (163.1 lb.)
Operating Temperature Range	-25°C ~ 60°C (-13°F ~ 140°F)
Cooling Method	Natural Convection
Max. Operating Altitude	4,000 m (13,123 ft.)
Relative Humidity	0 ~ 100%
DC Connector	Amphenol Helios H4
AC Connector	Waterproof PG Terminal + OT Connector
Protection Degree	IP65
Topology	Transformerless
Nighttime Power Consumption	< 2 W

Standard Compliance (more available upon request)	
Certificate	EN 62109-1/-2, IEC 62109-1/-2, EN 50530, IEC 62116, IEC 62910, IEC 60068, IEC 61683, IRR-DCC-MV, G99
Grid Code	IEC 61727, G59/3, DEWA, NRS 097-2-1, IEEE 1547, SASO, DEWA