

Smart PV Controller



Active Safety

AI Powered Arcing Protection



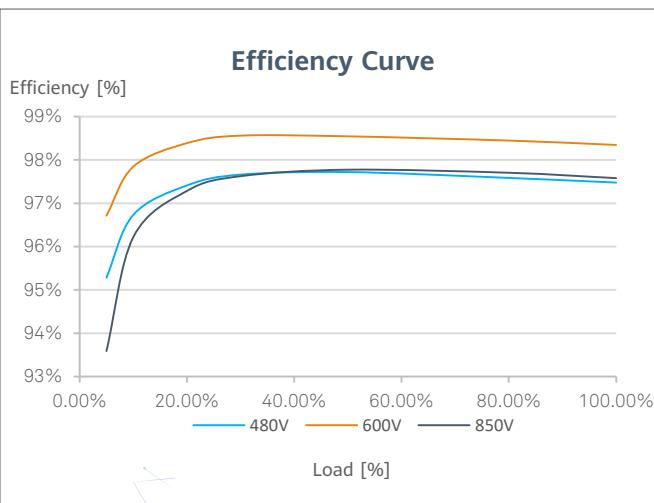
Higher Yields

Up to 30% More Energy with Optimizer¹

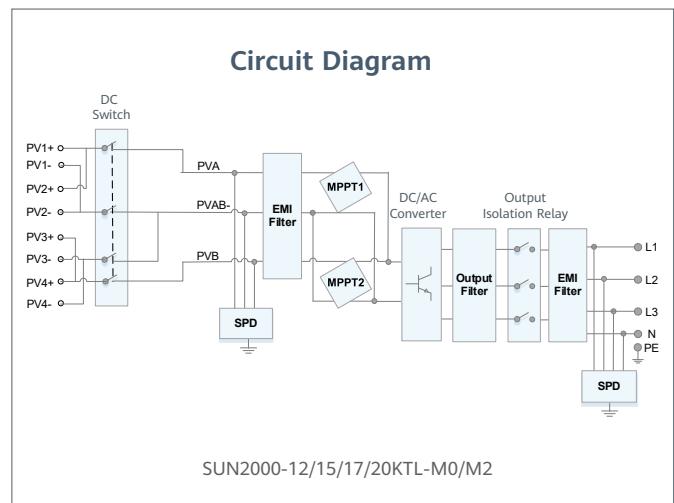


Flexible Communication

WLAN, Fast Ethernet, 4G
Communication Supported



¹ Only applicable to SUN2000-12/15/17/20KTL-M2 inverter.



Technical Specification	SUN2000-12KTL-M2	SUN2000-15KTL-M2	SUN2000-17KTL-M2	SUN2000-20KTL-M2
Efficiency				
Max. efficiency	98.50%	98.65%	98.65%	98.65%
European weighted efficiency	98.00%	98.30%	98.30%	98.30%
Input				
Recommended max. PV power ¹	18,000 Wp	22,500 Wp	25,500 Wp	30,000 Wp
Max. input voltage ²		1,080 V		
Operating voltage range ³		160 V ~ 950 V		
Start-up voltage		200 V		
Rated input voltage		600 V		
Max. input current per MPPT		22 A		
Max. short-circuit current		30 A		
Number of MPP trackers		2		
Max. input number per MPP tracker		2		
Output				
Grid connection			Three phase	
Rated output power	12,000 W	15,000 W	17,000 W	20,000 W
Max. apparent power	13,200 VA	16,500 VA	18,700 VA	22,000 VA
Rated output voltage		220 Vac / 380 Vac, 230 Vac / 400 Vac, 3W + N + PE		
Rated AC grid frequency		50 Hz / 60 Hz		
Max. output current	20 A	25.2 A	28.5 A	33.5 A
Adjustable power factor		0.8 leading ... 0.8 lagging		
Max. total harmonic distortion		≤ 3 %		
Features & Protections				
Input-side disconnection device			Yes	
Anti-islanding protection			Yes	
AC over-current protection			Yes	
AC short-circuit protection			Yes	
AC over-voltage protection			Yes	
DC reverse-polarity protection			Yes	
DC surge protection			Yes	
AC surge protection			TYPE II	
Residual current monitoring unit			Yes, compatible with TYPE II protection class according to EN/IEC 61643-11	
Arc fault protection			Yes	
Ripple receiver control			Yes	
Integrated PID recovery ⁴			Yes	
General Data				
Operation temperature range			-25 ~ +60 °C (-13 °F ~ 140 °F)	
Relative humidity			0 % RH ~ 100% RH	
Max. operating altitude			0 ~ 4,000 m (13,123 ft.) (Derating above 2000 m)	
Cooling			Natural Convection	
Display			LED Indicators; Integrated WLAN + FusionSolar App	
Communication			RS485; WLAN/Ethernet via Smart Dongle-WLAN-FE (Optional) 4G / 3G / 2G via Smart Dongle-4G (Optional)	
Weight (with mounting plate)			25 kg	
Dimensions (W x H x D) (incl. mounting plate)			525 x 470 x 262 mm (20.7 x 18.5 x 10.3 inch)	
Degree of protection			IP65	
Nighttime Power Consumption			< 5.5 W ⁵	
Optimizer Compatibility				
DC MBUS compatible optimizer			SUN2000-450W-P	
Standard Compliance (more available upon request)				
Safety			EN/IEC 62109-1, EN/IEC 62109-2	
Grid connection standards			G98, G99, EN 50549, CEI 0-21, CEI 0-16, VDE-AR-N-4105, VDE-AR-N-4110, AS 4777.2, C10/11, ABNT, VFR 2019, RD 1699, RD 661, PO 12.3, TOR D4, IEC61727, IEC62116, DEWA	

¹ Inverter max input PV power is 40,000 Wp when long strings are designed and fully connected with SUN2000-450W-P power optimizers.
² The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.
³ Any DC input voltage beyond the operating voltage range may result in inverter improper operating.
⁴ SUN2000-12-20KTL-M2 raises potential to 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)
⁵ <10 W when PID recovery function is activated.