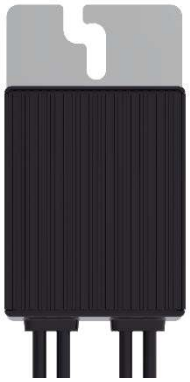
Smart PV Optimizer



One-Fits-All Optimizer
Easier Business

<5s Module Auto-Mapping

Arc Fault Pinpoint
Positioning Along PV Cable

Technical Specification	SUN2000-450W-P2	SUN2000-600W-P
Input		
Rated Input DC Power [1]	450 W	600 W
Absolute maximum input voltage	80 V	
MPPT operating voltage range	10 - 80 V	
Maximum Short Circuit Current (Isc)	14.5 A	
Max. efficiency	99.5 %	
Weighted efficiency	99.0 %	
Overvoltage category	II	
Output		
Max. output voltage	80 V	
Max. output current	15 A	
Output bypass [2]	Yes	
Shutdown output voltage per optimizer [3]	0 V	
Shutdown output impedance per optimizer	1k ohm ± 10 %	
Communication		
Communication Method	MBUS	
Standard Compliance		
Safety	IEC62109-1 (class II safety)	
RoHS	Yes	
General Data		
Dimension (W x H x D)	75 x 140 x 28 mm (3.0 x 5.5 x 1.1 inch)	
Weight (including cables)	0.6 kg (1.3 lb.)	
Installation part (optional)	Frame Mounting Bracket / T-shaped Bolt [4]	
Input connector	MC4	
Input wire length	0.15m	
Output connector	MC4	
Output wire length	1.3 m (4.3 ft.) [5]	
Operating temperature / humidity range	-40 ℃ ~ 85 ℃ [5] / 0 %RH ~ 100 %RH	
Degree of protection	IP68	
Compatible product	SUN2000-2/3/3.68/4/4.6/5/6KTL-L1, SUN2000-3/4/5/6/8/10KTL-M1, SUN2000-12/15/17/20KTL-M2, SUN2000-30/36/40KTL-M3	

Long String Design (Full Optimizer)	SUN2000-2-6KTL-L1	SUN2000-3-10KTL-M1	SUN2000-12-20KTL-M2	SUN2000-30-40KTL-M3
Minimum optimizer number per string [6]	4	6	6	6
Maximum optimizer number per string	25	35	35	25
Maximum DC power per string	6,000 W	10,000 W	12,000 W	12,000 W

*1 In the STC environment, The rated power of the module shall not exceed 1.05 times of the optimizer rated input power.
*2 Power optimizer is bypassed in the string connected to an operating inverter when it fails to work
*3 Power optimizer output 0Vdc when disconnecting to the inverter or inverter is shutdown.
*4 Allow PV module frame installation / extruded aluminum profile installation
*5 Fits PV module in landscape and portrait installation.
*6. Require standard 60 cells module to meet the inverter minimum startup voltage
*7 Full power capability refers to online smart design tool.