Smart Energy Controller

Higher Yields

Max. Efficiency
Up to 98.4%

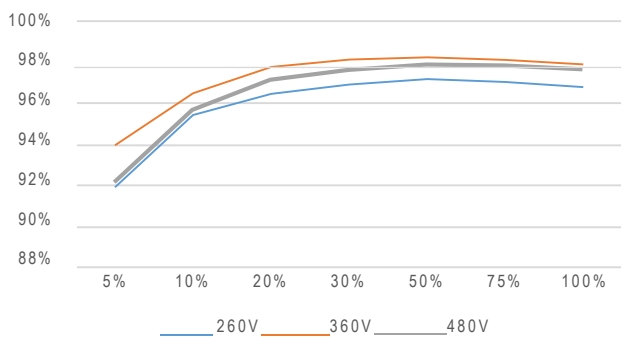
Better Experience

Small & Light
Only 12kg

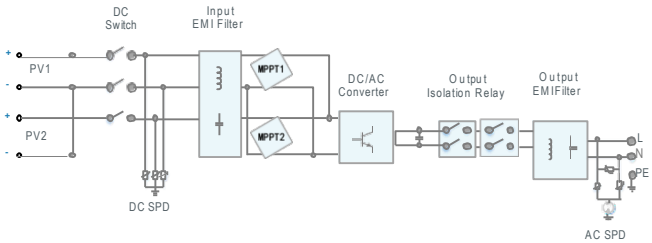
Safe & Reliable

Fully Sealed design
With IP65

Efficiency Curve



Circuit Diagram



SUN600-5/6KTL-L0

Technical Specification

Technical Specification	SUN600-5KTL-L0	SUN600-6KTL-L0
Efficiency		
Max. efficiency	98.4 %	97.8%
European weighted efficiency	97.8 %	97.2%
Input (PV)		
Recommended max. PV power	6,900 Wp	7,500 Wp
Max. input voltage	600 V	
Start-up voltage	100 V	
MPPT operating voltage range	90 V – 560 V	
Rated input voltage	360 V	
Max. input current per MPPT	12.5 A	
Max. short-circuit current	18 A	
Number of MPP trackers	2	
Max. number of inputs	2	
Output		
Grid connection	Single phase	
Rated output power	5,000 W [1]	6,000 W
Rated apparent output power	5,000 VA [1]	6,000 VA
Max. apparent power	5,000 VA [1]	6,000 VA
Rated output voltage	220 Vac / 230 Vac / 240 Vac	
Rated AC grid frequency	50 Hz / 60 Hz	
Max. output current	22.7 A [1]	27.3 A
Adjustable power factor	0.8 leading ... 0.8 lagging	
Max. total harmonic distortion	≤ 3 %	
Protection & Feature		
Anti-Islanding protection	Yes	
DC reverse polarity protection	Yes	
Insulation monitoring	Yes	
DC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11	
AC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11	
Residual current monitoring	Yes	
AC overcurrent protection	Yes	
AC short-circuit protection	Yes	
AC overvoltage protection	Yes	
Over-heat protection	Yes	
General Data		
Operating temperature range	-25 ~ +60 °C (Derating above 45°C @ Rated output power)	
Relative operating humidity	0 %RH ~ 100 %RH	
Operating altitude	0 ~ 4,000 m (Derating above 2,000 m)	
Cooling	Natural convection	
Display	LED indicators; integrated WLAN + FusionSolar APP	
Communication	RS485, WLAN via inverter built-in WLAN module Ethernet via Smart Dongle-WLAN-FE (Optional); 4G / 3G / 2G via Smart Dongle-4G (Optional)	
Weight (incl. mounting bracket)	12.0 kg (26.5 lb)	
Dimension (incl. mounting bracket)	365mm * 365mm * 156 mm (14.4 x 14.4 x 6.1 inch)	
Degree of protection	IP65	
Country of Manufacture	China	

Standard Compliance (more available upon request)	
Safety	EN/IEC 62109-1, EN/IEC 62109-2, IEC 62116
Grid connection standards	AS/NZS 4777:2015, AS/NZS 4777:2020 [2]

*1 According to AS/NZS 4777:2020 standard