

String Inverter (SUN2000-42KTL)



Smart

- 4 MPPTs for versatile adaptations to different layouts
- 8 strings intelligent monitoring and 80% time saved for fault detection
- Power Line Communication (PLC) supported

Efficient

- Max. efficiency 98.8%, European efficiency 98.4%

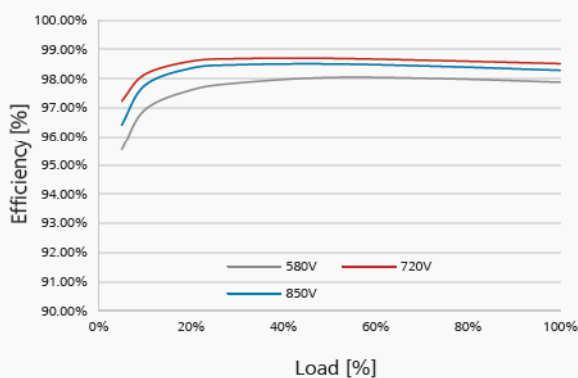
Safe

- DC disconnect integrated, safe and convenient for maintenance
- Type II surge arresters for both DC and AC
- Ground fault protection
- Residual Current Detection (RCD) protection

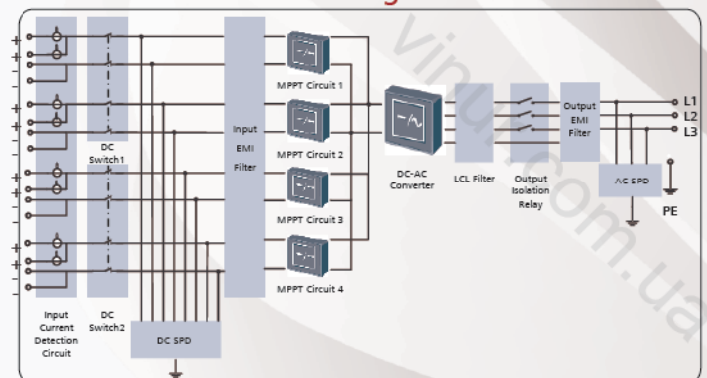
Reliable

- No need for external fans with natural cooling technology
- Protection rating of IP65

Efficiency Curve



Circuit Diagram



SUN2000-42KTL

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Technical Specifications	SUN2000-42KTL
	Efficiency
Max. Efficiency	98.8%
European Efficiency	98.4%
	Input
Max. DC Usable Power	47,900 W
Max. Input Voltage	1,100 V
Max. Current per MPPT	22 A
Max. Short Circuit Current per MPPT	30 A
Min. Operating Voltage / Start Input Voltage	200 V / 250 V
Full Power MPPT Voltage Range	580 V ~ 850 V
MPPT Operating Voltage Range	200 V ~ 1000 V
Rated Input Voltage	720 V
Max. Number of Inputs	8
Number of MPP Trackers	4
	Output
Rated AC Active Power	42,000 W
Max. AC Apparent Power	47,000 VA
Max. AC Active Power (cosφ=1)	Default 47,000 W; 42,000W optional in settings
Rated Output Voltage	277V / 480V, 3W+PE
Rated AC Grid Frequency	50 Hz / 60 Hz
Max. Output Current	56.6 A
Adjustable Power Factor	0.8 LG ... 0.8 LD
Max. Total Harmonic Distortion	< 3%
	Protection
Input-side Disconnection Device	Yes
Anti-Islanding Protection	Yes
DC Reverse Polarity Protection	Yes
PV-array String Fault Monitoring	Yes
DC Surge Arrester	Type II
AC Surge Arrester	Type II
Insulation Monitoring	Yes
Residual Current Detection	Yes
	Communication
Display	LED Indicators
USB / Bluetooth +APP	Yes
RS485	Yes
PLC	Yes
	General
Dimensions (WxHxD)	930 x 550 x 260 mm (36.6 x 21.7 x 10.2 inch)
Weight	55 kg (121 lb.)
Operation Temperature Range	-25 °C ~ 60 °C (-13°F ~ 140°F)
Cooling	Natural Convection
Operating Altitude	0 ~ 4,000 m (13,123 ft.)
Relative Humidity	0 ~ 100%
DC Connector	Amphenol H4
AC Connector	Waterproof PG Terminal + OT Connector
Protection Rating	IP65
Internal Consumption at Night	< 1 W
Topology	Transformerless
	Standards Compliance
Safety / EMC	EN/IEC 61000-1, EN/IEC 61000-2, EN/IEC 61000-3, EN/IEC 61000-4, EN/IEC 62109-1, EN/IEC 62109-2
Grid Code	BDEW 2008, G59/3, UTE C 15-712-1