

## SUN2000 Series Solar Inverter for MV Grid-Connection Three-Phase, Transformerless, 28kW

### Introduction

Huawei Technologies, adhering to the concept of "high quality, perfect service, and quick response to customer's demand", constantly brings high quality products and services to the world. As the world's top 500 enterprises, we are actively promoting the use of clean solar energy by providing a full range of solar inverters and intelligent monitoring solutions.

In more than 20 years, Huawei has provided communication equipments and stable power supplies for one-third of global population's communication service, and has accumulated rich experience of R & D and application in the ICT and network energy field. Based on leading technology platforms of power supplies and digital control, we release the SUN2000 series three-phase inverter with telecom class reliability and top efficiency all over the world.

SUN2000-28KTL meets Germany BDEW MV directive and VDE1206-1-1 directive, CE Low Voltage Directive and the Directive for Electromagnetic Compatibility, as well as China Golden Sun certification. It has good environment adaptability especially for the large scale medium voltage PV plant with IP65 and fanless design.

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## Key Features

### Higher Yields

- Maximum efficiency 98.7%
- European efficiency 98.4%
- Reduce 30% AC cable loss with higher output voltage of 480V
- Saving AC cable investment up to 20% without N-Line

### Smart

- Maximum of 3 MPPT for versatile adaption to different module types or quantities built up with different alignments
- Up to 6 strings intelligent monitoring and fault detection
- Local graphic LCD and remote monitoring
- RS 485 and USB ports for connectivity and data management

### High Reliability

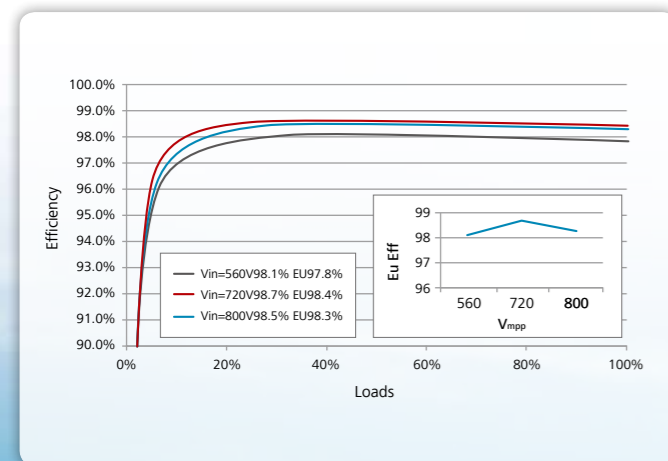
- With 20 years technology accumulation in telecom power, the same platform building inverter product
- No need of external fan with natural cooling technology
- Type II DC and Type III AC surge protection devices integrated
- Warranty up to 25 years

### Friendly

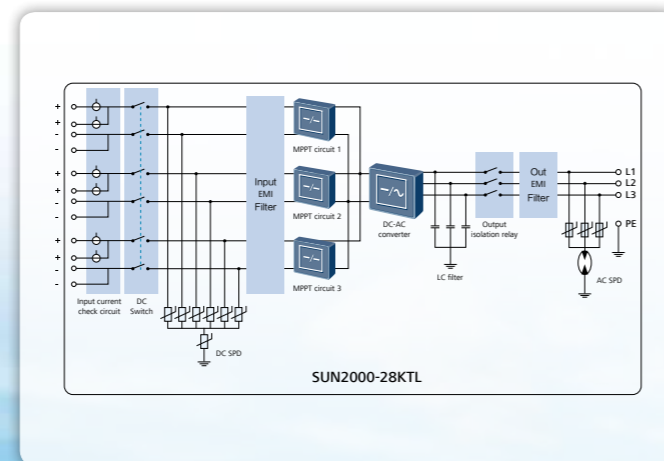
- 48kg@27.5kW, compact design of 0.08m<sup>3</sup>
- Easy connection with external waterproof DC / AC and signal terminals
- Noise ≤ 29dB
- Outdoor application of IP65



## Efficiency Curve



## Circuit Diagram



## Technical Specifications

Technical Specifications		SUN2000-28KTL	
Efficiency		Protection	
Max. efficiency	98.7%	Input-side disconnection device	Yes
European efficiency	98.4%	Anti-islanding protection	Yes
Input		AC over current protection	Yes
Max. DC input (cos φ =1)	28,200 W	DC reverse-polarity protection	Yes
Max. input voltage	1000 V	PV-array string fault monitoring	Yes
Max. input current	18 A	DC surge arresters	Type II
Min. operating voltage	200 V	AC surge arresters	Type III
MPP voltage range	480 V~800 V	Insulation monitoring	Yes
Rated input voltage	620 V	Residual current detection	Yes
Max. number of inputs	6	General Data	
Number of MPP trackers	3	Dimensions(W/H/D)	520x610x255 mm (20.5 x 24.0 x 10.0 in.)
Output		Weight	48 kg
AC output power	27,500 W	Operating temperature range	-25°C to +60°C (-13°F to +140°F)
Rated output voltage	3 × 277 V/480 V+PE	Cooling	Natural convection
AC power frequency	50 Hz/60 Hz	Operating altitude	3000 m
Max. output current	33.5 A	Relative humidity (non-condensing)	0~100%
Adjustable power factor	0.8 leading ... 0.8 lagging	DC connector	Amphenol H4
Max. total harmonic distortion	<3%	AC connector	Amphenol C16/3
Display and Communication		Degree of protection	IP65
Display	Graphic LCD	Self-consumption at night	< 1 W
RS485	Yes	Topology	Transformerless
USB	Yes	Noise emission	29dB
Standards Compliance		Warranty	5 years (10/15/20/25 years optional)
Safety/EMC	EN61000-6-2, EN61000-6-3, EN61000-3-2, EN61000-3-3, EN61000-3-11, EN61000-3-12, EN/IEC62109-1, EN/IEC62109-2		
Grid code	VDE0126-1-1, BDEW 2008, CGC/GF004: 2011		