



<b>Product Certificate Number</b>	<b>20056-CER</b>
<b>Applicant</b>	Huawei Technologies España Parque Empresarial Las Tablas, Federico Mompou 5, Ed. 1 planta 2 28050 Las Tablas. Madrid, Spain.
<b>Series</b>	String Inverters SUN2000-KTL
<b>Model/</b>	SUN 2000-8KTL, SUN 2000-12KTL, SUN 2000-17KTL, SUN 2000-20KTL, SUN 2000-23KTL
<b>Type of generating unit</b>	Three Phases Solar Inverter
<b>Technical Data</b>	See page 2-5
<b>Standard</b>	<b>UNE 206006 IN: 2011:</b> Ensayos de detección de funcionamiento en isla de múltiples inversores fotovoltaicos conectados a red en paralelo.
<p>Having assessed the test report number: 20056-TR performed by Certification Entity for Renewable Energies based on the requirements of the EN ISO/IEC 17025:2005.</p> <p>The above-mentioned generating unit complies with the requirements of the: UNE 206006 IN: 2011: Ensayos de detección de funcionamiento en isla de múltiples inversores fotovoltaicos conectados a red en paralelo.</p> <p>This certification is according the CERE internal process PET-CERE-09 Rev 13 based on the requirements of the EN ISO/IEC 17065:2012. For this certification process the conformity assessment activities were based on:</p> <ul style="list-style-type: none"><li>• Testing of production samples selected by CERE.</li><li>• Audit of quality system according ISO 9001 with certificates number: FM 669358 and FM 669363 issued by a certification body accredited according EN ISO/IEC 17021.</li><li>• Inspection of the software implementation process.</li></ul>	
<p>Madrid, August 6, 2018. This certificate is valid until August 6, 2021</p> <p style="text-align: right;">Miguel Martínez Lavín Certification Manager</p>	



Inverters:

Technical Specifications	SUN2000-8KTL	SUN2000-12KTL
<b>Input</b>		
Max. DC Usable Power	9000 W	13500 W
Max. Input Voltage	1000 V	1000 V
Max. Current per MPPT	18 A	18 A
Max. Short Circuit Current per MPPT	25 A	25 A
Min. Operating Voltage / Start Input Voltage	200 V / 250 V	200 V / 250 V
Full Power MPPT Voltage Range	320 V ~ 800 V	380 V ~ 800 V
MPPT Operating Voltage Range	200 V ~ 950 V	200 V ~ 950 V
Rated Input Voltage	620 V	620 V
Max. Number of Inputs	4	4
Number of MPP Trackers	2	2
<b>Output</b>		
Rated AC Active Power	8000 W	12000 W
Max. AC Apparent Power	8800 VA	13200 VA
Max. AC Active Power (cos $\Phi$ = 1)	8800 W	13200 W
Rated Output Voltage	220 V / 380 V, 230 V / 400 V, 3W+N+PE	220 V / 380 V, 230 V / 400 V, 3W+N+PE
Rated AC Grid Frequency	50 Hz / 60 Hz	50 Hz / 60 Hz
Max. Output Current	13,4 A	20 A
Adjustable Power Factor	0,8 LG ... 0,8 LD	0,8 LG ... 0,8 LD



Technical Specifications	SUN2000-17KTL	SUN2000-20KTL
<b>Input</b>		
Max. DC Usable Power	19100 W	22500 W
Max. Input Voltage	1000 V	1000 V
Max. Current per MPPT	18 A	18 A
Max. Short Circuit Current per MPPT	25 A	25 A
Min. Operating Voltage / Start Input Voltage	200 V / 250 V	200 V / 250 V
Full Power MPPT Voltage Range	400 V ~ 800 V	480 V ~ 800 V
MPPT Operating Voltage Range	200 V ~ 950 V	200 V ~ 950 V
Rated Input Voltage	620 V	620 V
Max. Number of Inputs	6	6
Number of MPP Trackers	3	3
<b>Output</b>		
Rated AC Active Power	17000 W	20000 W
Max. AC Apparent Power	18700 VA	22000 VA
Max. AC Active Power (cos $\Phi$ = 1)	18700 W	22000 W
Rated Output Voltage	220 V / 380 V, 230 V / 400 V, 3W+N+PE	220 V / 380 V, 230 V / 400 V, 3W+N+PE
Rated AC Grid Frequency	50 Hz / 60 Hz	50 Hz / 60 Hz
Max. Output Current	28,4 A	33,4 A
Adjustable Power Factor	0,8 LG ... 0,8 LD	0,8 LG ... 0,8 LD



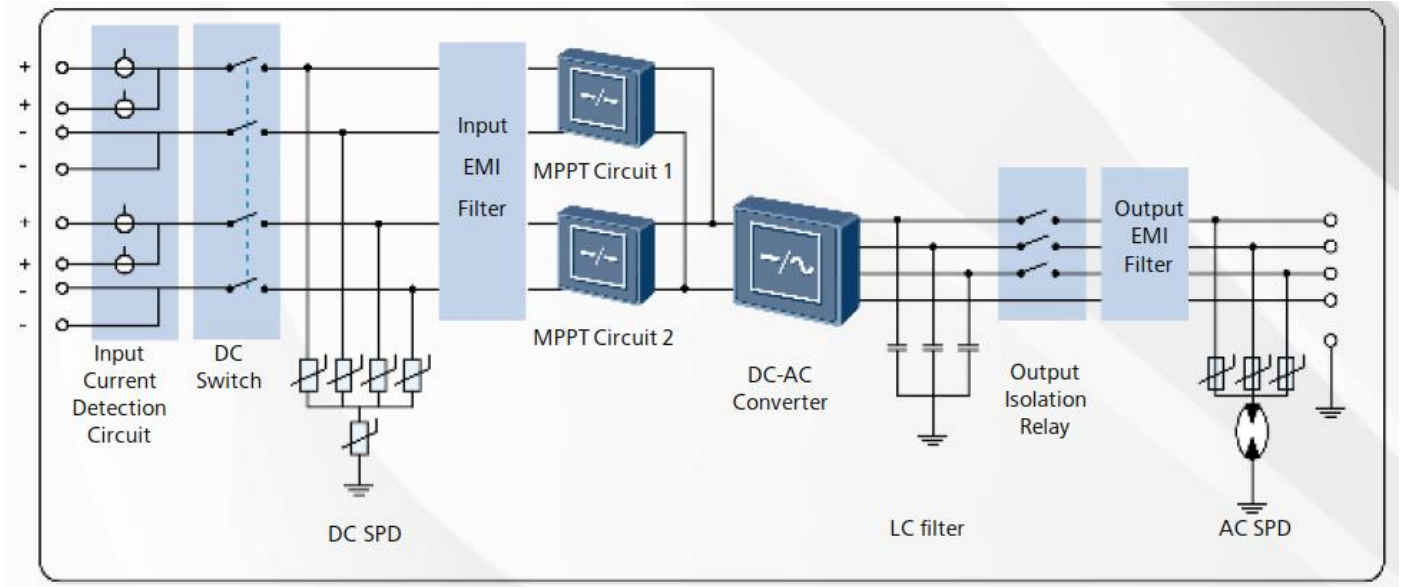


Technical Specifications	SUN2000-23KTL
<b>Input</b>	
Max. DC Usable Power	23600 W
Max. Input Voltage	1000 V
Max. Current per MPPT	18 A
Max. Short Circuit Current per MPPT	25 A
Max. input current (3 MPPTs)	54 A
Min. Operating Voltage	200 V
MPPT Voltage Range	480 V ~ 800 V
Rated Input Voltage	620 V
Max. Number of Inputs	6
Number of MPP Trackers	3
<b>Output</b>	
Rated AC Active Power	23000 W
Max. AC Active Power (cos $\Phi$ = 1)	--
Rated Output Voltage	220 V - 230 V / 380 V - 400 V, 3W+N+PE
Rated AC Grid Frequency	50 Hz / 60 Hz
Max. Output Current	33,5 A
Adjustable Power Factor	0,8 LG ... 0,8 LD

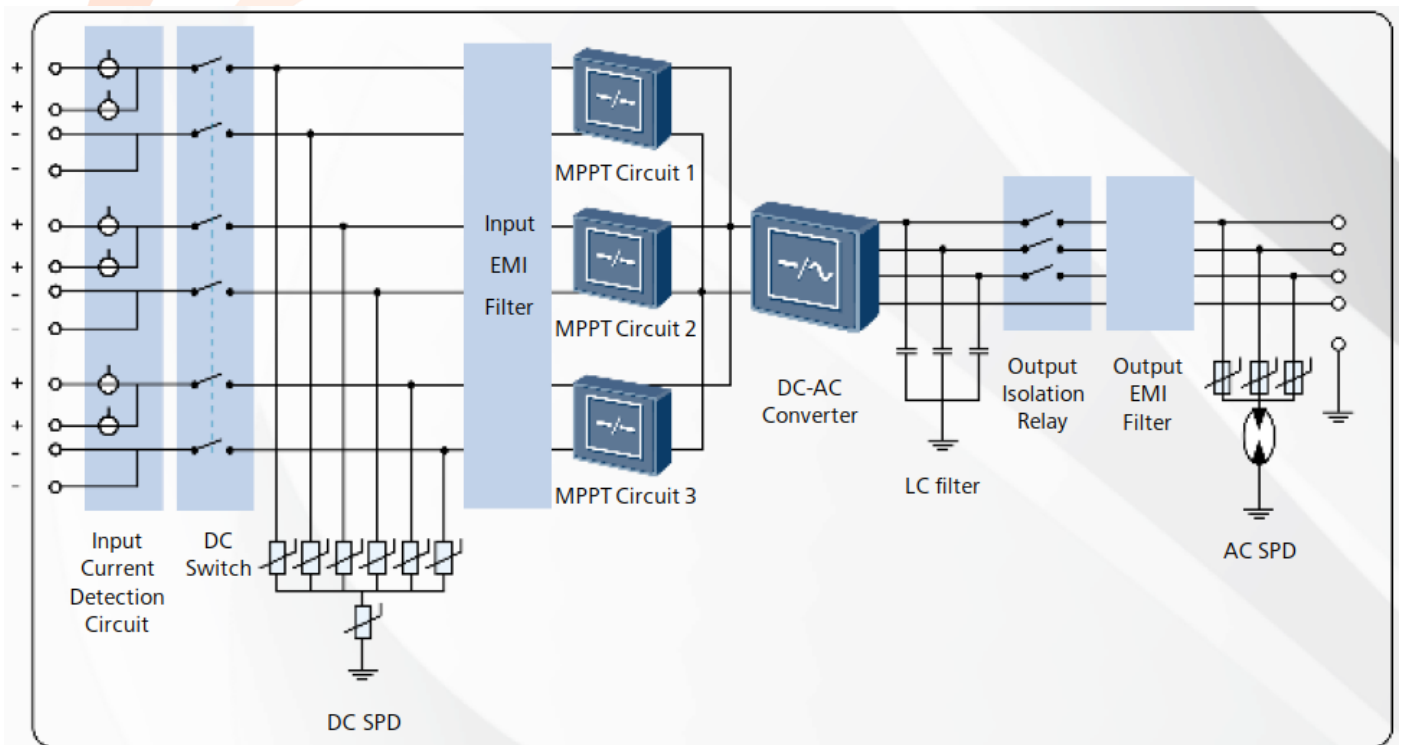
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Electrical Diagrams:

**SUN2000-8/12KTL**



**SUN2000-17/20/23KTL**





The sample selected to test was representative of the production. The sample was selected in:

Huawei Industrial Base Bantian, Longgang, 518129, Shenzhen, Guangdong (China)

Sample Report Number:

20056-TM

The inspection of manufacturing process was performed in:  
On February 5, 2018

Huawei Industrial Base Bantian, Longgang, 518129, Shenzhen, Guangdong (China)

Inspection Report Number:

20056-IF

