



<b>Product Certificate Number</b>	<b>20238-CER</b>
<b>Applicant</b>	<b>MONSOL - WATTKRAFT</b> C/ La Gitanilla 17, Nave 1 (Edificio Promálaga), 29004 Málaga
<b>Manufacturer</b>	HUAWEI + MONSOL
<b>Model/ Series</b>	<b>HUAWEI</b> SUN2000-8KTL, SUN2000-10KTL, SUN2000-12KTL, SUN2000-15KTL, SUN2000-17KTL, SUN2000-20KTL, SUN2000-23KTL, SUN2000-33KTL-A and SUN2000-36KTL <b>MONSOL</b> CcM4
<b>Type of generating unit</b>	Three-phases solar inverter + Control manager
<b>Technical Data</b>	See page 2-3
<b>Standard</b>	<b>UNE 217001 IN: 2015:</b> Requisitos y ensayos para sistemas que eviten el vertido de energía a la red de distribución.

Having assessed the test report number: 20238-TR performed by Certification Entity for Renewable Energies, S.L. (EA Accredited Laboratory N° 1239/LE2396) based on the requirements of the EN ISO/IEC 17025:2005.

The above-mentioned generating unit complies with the requirements of the: UNE 217001 IN: 2015: Requisitos y ensayos para sistemas que eviten el vertido de energía a la red de distribución.

This certification is according the CERE internal process PET-CERE-09 Rev 15 based on the requirements of the EN ISO/IEC 17065:2012. For this certification process the conformity assessment activities were based on:

- Testing of production samples selected by CERE.
- Audit of quality system according ISO 9001 with certificate number: 34/5200/19/2040 issued by a certification body accredited according EN ISO/IEC 17021.
- Inspection of the manufacturing process

Madrid, February 22, 2019. This certificate is valid until February 22, 2022

Miguel Martínez Lavín  
Certification Manager



## Inverters characteristics

Trademark	HUAWEI								
Technical Specifications	SUN2000-8KTL	SUN2000-10KTL	SUN2000-12KTL	SUN2000-15KTL	SUN2000-17KTL	SUN2000-20KTL	SUN2000-23KTL	SUN2000-33KTL-A	SUN2000-36KTL
<b>Input</b>									
Max. Input Voltage	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1000 V	1100 V	1100 V
Max. Current per MPPT	18 A	18 A	18 A	18 A	18 A	18 A	18 A	22 A	22 A
Min. Operating Voltage / Start Input Voltage	200 V / 250 V	200 V / 250 V	200 V / 250 V	200 V / 250 V	200 V / 250 V	200 V / 250 V	200 V / 250 V	200 V / 250 V	200 V / 250 V
MPPT Voltage Range	200 V ~ 950 V	200 V ~ 950 V	200 V ~ 950 V	200 V ~ 950 V	200 V ~ 950 V	200 V ~ 950 V	200 V ~ 950 V	200 V ~ 1000 V	200 V ~ 1000 V
Rated Input Voltage	620 V	620 V	620 V	620 V	620 V	620 V	620 V	620 V	620 V
Max. Number of Inputs	4	4	4	6	6	6	6	8	8
Number of MPP Trackers	2	2	2	3	3	3	3	4	4
<b>Output</b>									
Rated AC Active Power	8000 W	11000 W	12000 W	15000 W	17000 W	20000 W	23000 W	30000 W	36000 W
Max. AC Apparent Power	8800 VA	12100 VA	13200 VA	16500 VA	18700 VA	22000 VA	25300 VA	33000 VA	40000 VA
Rated Output Voltage	230 V / 400 V, default 3W+N+PE; 3W+PE								
Rated AC Grid Frequency	50 Hz								
Max. Output Current	13,4 A	18,4 A	20 A	25 A	28,4 A	33,4 A	38,4 A	48 A	57,8 A
Adjustable Power Factor	0,8 LG ... 0,8 LD								
Software	2.2.00.037								

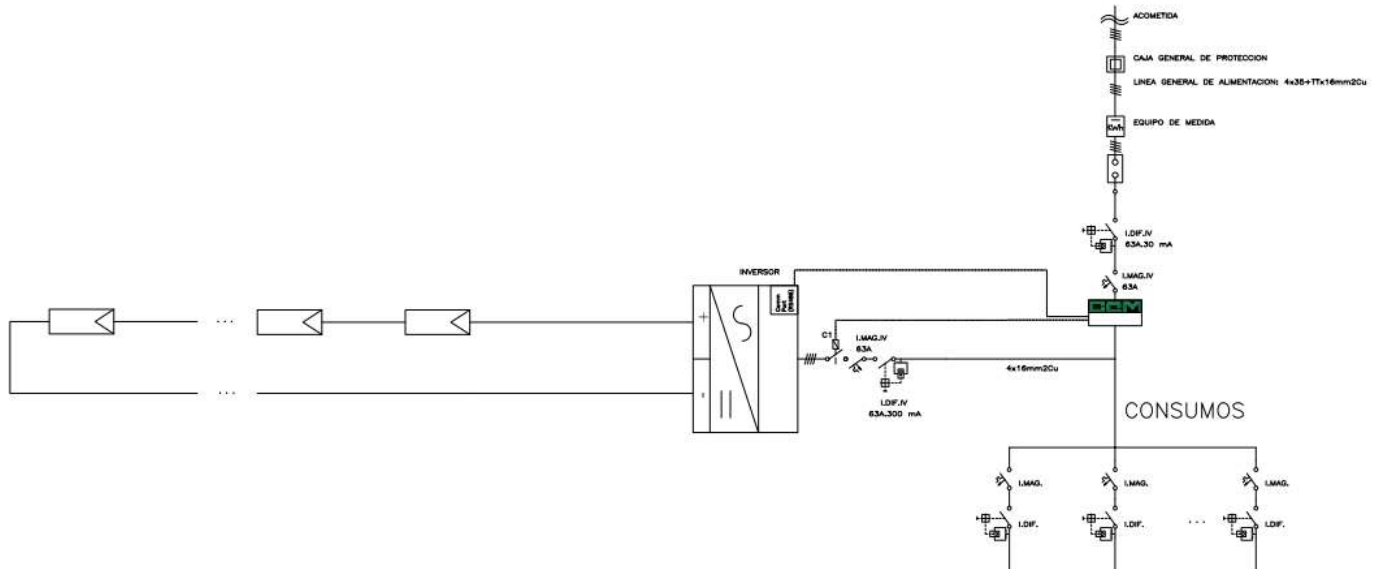


Control manager:

<b>Trademark/Model:</b>	<b>MONSOL / CcM 4</b>
Software Version / Checksum	2212 / 3498
Maximum operation current	63 Arms
Current measurement range	[0,2 – 63] Arms
Maximum allowed voltage	300 Vrms
Measurement frequency	50 Hz
Current measurement error	< 0,5 % RGD
Voltage measurement error	< 0,2 % RGD
Active energy measurement error	< 1 % RGD
Reactive energy measurement error	< 2 % RGD
Communication protocol	MODBUS
Operating temperature	-25 < Ta < +50 °C
Maximum consumption	1 W
Power Supply	85 – 300 Vrms
<b>Dimmensions (width x length x height)</b>	
Total dimensions	72 x 49 x 31 mm
Comb dimensions	5 x 11,9 x 3 mm



Electrical Diagram:



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

MONSOL  
Calle La Gitanilla, 17. Nave 1 (porton A).  
Edificio Promólaga  
29004. Málaga. Spain

Sample Report Number:

20238-TM

The inspection of manufacturing process was performed in:  
On February 21, 2019

MONSOL  
Calle La Gitanilla, 17. Nave 1 (porton A).  
Edificio Promólaga  
29004. Málaga. Spain

Inspection Report Number:

20238-IF