



<b>Product Certificate Number</b>	<b>20455-8-CER</b>
<b>Applicant</b>	Ingeteam Power Technology S.A. - Energy Avenida Ciudad De La Innovación, 13. 31621. Sarriguren. Navarra. SPAIN
<b>Series/</b>	INGECON SUN Power B Series 1500 Vdc INGECON SUN Power B Series INGECON SUN STORAGE Power B Series INGECON SUN STORAGE Power B Series 1500 Vdc
<b>Model/</b>	See page 2
<b>Type of generating unit</b>	Photovoltaic Inverter
<b>Technical Data</b>	<b>See pages 3, 4, 5 and</b>
<b>Network connection rule</b>	<b>Electric Rule 21: 2015.</b> Generating facility interconnections.

Having assessed the test report number: 11505-4-TR performed by CERE (Acredited by ENAC with Nº 1239/LE2396) based on the requirements of the EN ISO/IEC 17025:2005.

The above-mentioned generating unit complies with the requirements of the: **Electric Rule 21: 2015.** Generating facility interconnections.

This certification is according the CERE internal process PET-CERE-09 Rev 17 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: 0. 04. 12231 issued by a certification body accredited according EN ISO/IEC 17021.
- Inspection of the manufacturing process.

This certificate cancels and supersedes the certificate 11251-18-CER-E5 issued on May 30, 2019

Madrid, November 03, 2019. This certificate is valid until November 03, 2022.

Miguel Martínez Lavín  
Certification Manager

Models

<p><u>INGECON SUN Power B Series</u>  INGECON SUN 720TL B260  INGECON SUN 748TL B270  INGECON SUN 830TL B300  INGECON SUN 860TL B310  INGECON SUN 890TL B320  INGECON SUN 915TL B330  INGECON SUN 940TL B340  INGECON SUN 970TL B350  INGECON SUN 1000TL B360  INGECON SUN 1025TL B370  INGECON SUN 1050TL B380  INGECON SUN 1070TL B385  INGECON SUN 1080TL B390  INGECON SUN 1110TL B400  INGECON SUN 1140TL B410  INGECON SUN 1165TL B420  INGECON SUN 1190TL B430  INGECON SUN 1220TL B440  INGECON SUN 1250TL B450  INGECON SUN 1250TL B450  INGECON SUN 1275TL B460  INGECON SUN 1303TL B470  INGECON SUN XXXXTL BYYY (*)</p>	<p><u>INGECON SUN STORAGE Power B Series</u>  INGECON SUN STORAGE 720TL B260  INGECON SUN STORAGE 748TL B270  INGECON SUN STORAGE 830TL B300  INGECON SUN STORAGE 860TL B310  INGECON SUN STORAGE 890TL B320  INGECON SUN STORAGE 915TL B330  INGECON SUN STORAGE 940TL B340  INGECON SUN STORAGE 970TL B350  INGECON SUN STORAGE 1000TL B360  INGECON SUN STORAGE 1025TL B370  INGECON SUN STORAGE 1050TL B380  INGECON SUN STORAGE 1070TL B385  INGECON SUN STORAGE 1080TL B390  INGECON SUN STORAGE 1110TL B400  INGECON SUN STORAGE 1140TL B410  INGECON SUN STORAGE 1165TL B420  INGECON SUN STORAGE 1190TL B430  INGECON SUN STORAGE 1220TL B440  INGECON SUN STORAGE 1250TL B450  INGECON SUN STORAGE 1275TL B460  INGECON SUN STORAGE 1303TL B470  INGECON SUN STORAGE XXXXTL BYYY (**)</p>
<p><u>INGECON SUN Power B Series 1500 Vdc</u>  INGECON SUN 1170TL B450  INGECON SUN 1195TL B460  INGECON SUN 1220TL B470  INGECON SUN 1247TL B480  INGECON SUN 1273TL B490  INGECON SUN 1300TL B500  INGECON SUN 1325TL B510  INGECON SUN 1350TL B520  INGECON SUN 1376TL B530  INGECON SUN 1400TL B540  INGECON SUN 1430TL B550  INGECON SUN 1455TL B560  INGECON SUN 1480TL B570  INGECON SUN 1500TL B578  INGECON SUN 1532TL B590  INGECON SUN 1560TL B600  INGECON SUN 1580TL B630  INGECON SUN 1600TL B615  INGECON SUN 1640TL B630  INGECON SUN 1665TL B640  INGECON SUN 1690TL B650  INGECON SUN 1715TL B660  INGECON SUN 1740TL B670  INGECON SUN 1767TL B680  INGECON SUN 1800TL B690  INGECON SUN 1820TL B700  INGECON SUN XXXXTL BYYY (***)</p>	<p><u>INGECON SUN STORAGE Power B Series 1500 Vdc</u>  INGECON SUN STORAGE 1170TL B450  INGECON SUN STORAGE 1195TL B460  INGECON SUN STORAGE 1220TL B470  INGECON SUN STORAGE 1247TL B480  INGECON SUN STORAGE 1273TL B490  INGECON SUN STORAGE 1300TL B500  INGECON SUN STORAGE 1325TL B510  INGECON SUN STORAGE 1350TL B520  INGECON SUN STORAGE 1376TL B530  INGECON SUN STORAGE 1400TL B540  INGECON SUN STORAGE 1430TL B550  INGECON SUN STORAGE 1455TL B560  INGECON SUN STORAGE 1480TL B570  INGECON SUN STORAGE 1500TL B578  INGECON SUN STORAGE 1532TL B590  INGECON SUN STORAGE 1560TL B600  INGECON SUN STORAGE 1600TL B615  INGECON SUN STORAGE 1640TL B630  INGECON SUN STORAGE 1665TL B640  INGECON SUN STORAGE 1690TL B650  INGECON SUN STORAGE 1715TL B660  INGECON SUN STORAGE 1740TL B670  INGECON SUN STORAGE 1767TL B680  INGECON SUN STORAGE 1800TL B690  INGECON SUN STORAGE 1820TL B700  INGECON SUN STORAGE XXXXTL BYYY (***)</p>
<p>(*) This reference indicates the equipment between 220 V and 470 V of AC voltage (YYY) and between 610 kW and 1303 kW of AC power at 35°C (XXXX).  (**) This reference indicates the equipment between 220 V and 470 V of AC voltage (YYY) and between 610 kW and 1303 kW of AC power at 35°C (XXXX).  (***) This reference indicates the equipment between 333 V and 700 V of AC voltage (YYY) and between 865 kW and 1820 kW of AC power at 30°C (XXXX).</p>	

INGECON SUN Power B Series 1500 Vdc

PV inverters with AC voltage ranging from 333 V to 700 V	
<b>Input (DC)</b>	
Recommended PV array power range	Pdc.min=1,1*Pac (50°C) Pac.max= 1,3*Pac (30 °C)
Voltage MPP min	$V_{mpp.min} = \frac{1,732 \sqrt{\frac{2}{3}V^2 + (0,04 * I_{max})^2}}{0,985}$
Voltage MPP max	1300 V
Maximum Voltage	1500 V
Maximum Current	1850 A
<b>Output (AC)</b>	
Power @30°C/@50°C	Pac = ( $\sqrt{3}$ ) * Vac * Iac
Current @30°C/@50°C	1500 A/1350 A
Rated Voltage	Vac = 333 V ... 700 V
Frequency	50/60 Hz
Software version	ABK1000_B

INGECON SUN STORAGE Power B series 1500 Vdc

PV inverters with AC voltage ranging from 333 V to 700 V	
<b>Input (DC)</b>	
Min battery Voltage	$V_{mpp.min} = \frac{1,732 \sqrt{\frac{2}{3}(1,1V)^2 + (0,04 * I_{max})^2}}{0,985}$
Max. Battery voltage	1300 V
Maximum Current	1850 A
<b>Output (AC)</b>	
Power @30°C/@50°C	Pac = ( $\sqrt{3}$ ) * Vac * Iac
Current @30°C/@50°C	1500 A/1350 A
Rated Voltage	Vac = 333 V ... 700 V
Frequency	50/60 Hz
Software version	ABK1000_B

INGECON SUN Power B Series 1000 Vdc

PV inverters with AC voltage ranging from 220 V to 470 V	
<b>Input (DC)</b>	
Recommended PV array power range	$P_{dc.min} = 1,1 * P_{ac}$ (50°C) $P_{dc.max} = 1,3 * P_{ac}$ (35°C)
Voltage MPP min.	$V_{mpp.min} = \frac{1,732 \sqrt{\frac{2}{3} V^2 + (0,0311 * I_{max})^2}}{0,985}$
Voltage MPP max.	820 V
Maximum Voltage	1050 V
Maximum Current	2000 A
<b>Output (AC)</b>	
Power 35°C/50°C	$P_{ac} = (\sqrt{3}) * V_{ac} * I_{ac}$
Current 35°C/50°C	1600 A/ 1472 A
Rated Voltage	$V_{ac} = 220 \text{ V} \dots 470 \text{ V}$
Frequency	50 Hz/60 Hz
Software version	ABK1000_A

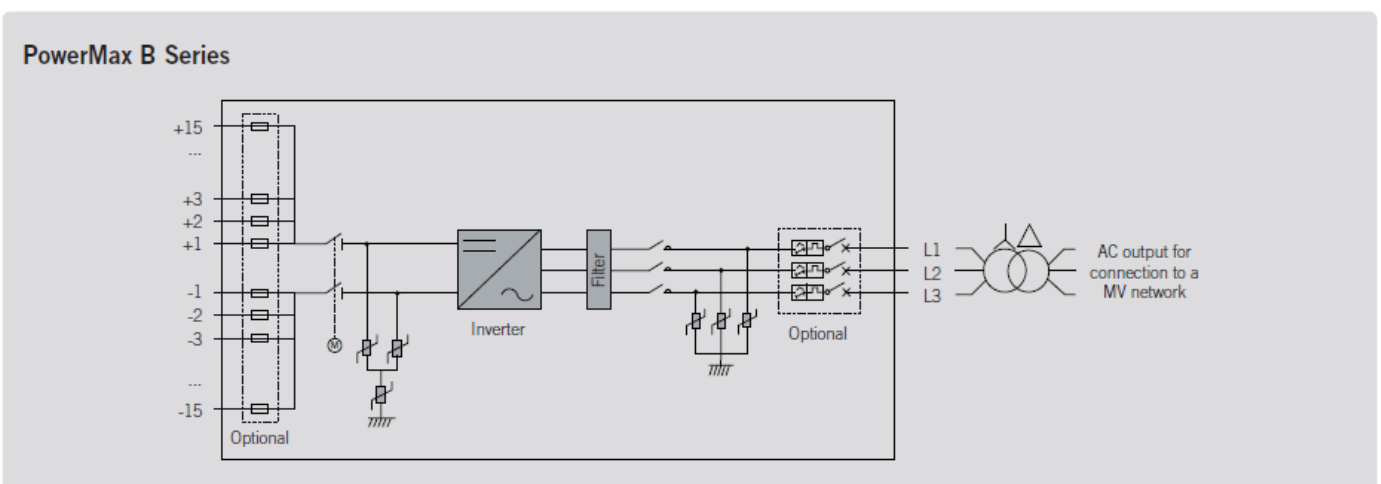
INGECON SUN STORAGE Power B Series 1000 Vdc

PV inverters with AC voltage ranging from 220 V to 470 V	
<b>Input (DC)</b>	
Min. Battery Voltage	$V_{mpp.min} = \frac{1,732 \sqrt{\frac{2}{3} (1,1V)^2 + (0,0311 * I_{max})^2}}{0,985}$
Max. Battery Voltage	820 V
Maximum Current	2000 A
<b>Output (AC)</b>	
Power 35°C/50°C	$P_{ac} = (\sqrt{3}) * V_{ac} * I_{ac}$
Current 35°C/50°C	1600 A/ 1472 A
Rated Voltage	$V_{ac} = 220 \text{ V} \dots 470 \text{ V}$
Frequency	50 Hz/60 Hz
Software version	ABK1000_A

INGECON SUN Power B Series 1000 Vdc: 1250 TL B450

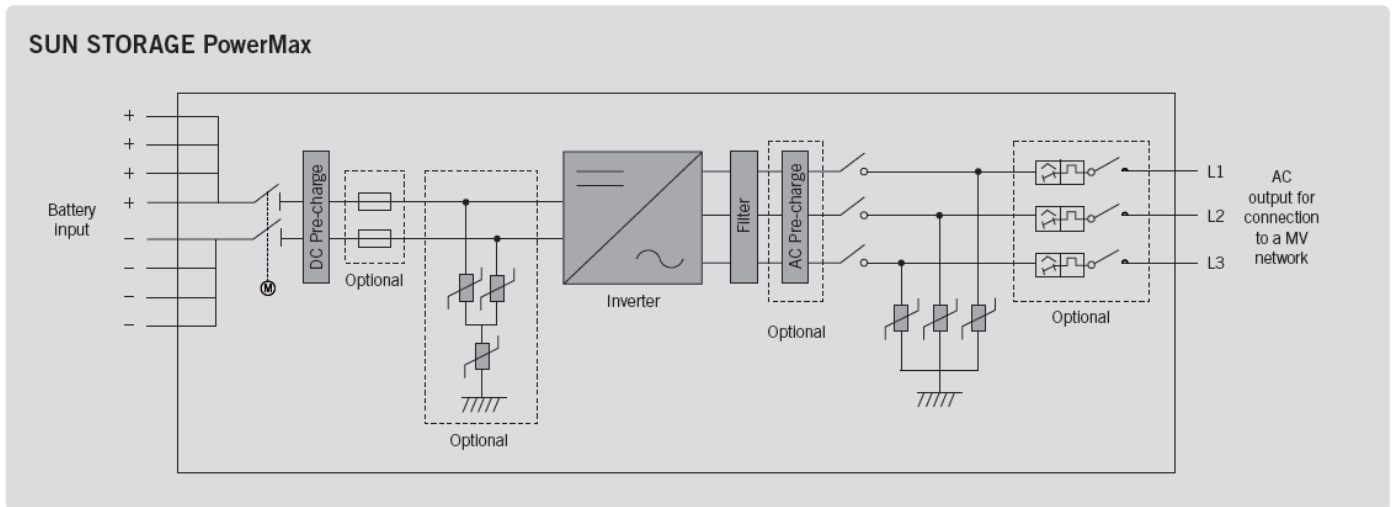
<b>1250 TL B450</b>	
<b>Input (DC)</b>	
Recommended PV array power range	1262-1621 kWp
Voltage MPP min.	653-820 V
Voltage MPP max.	820 V
Maximum Voltage	1050 A
Maximum Current	2000 A
<b>Output (AC)</b>	
Power 35°C/46°C/52°C	1247 kVA / 1208 kVA / 1169 kVA
Current 35°C/46°C/52°C	1600 A / 1550 A / 1500 A
Rated Voltage	450 V IT System
Frequency	50/60 Hz
Software version	ABK1000_B

Electrical Diagram of INGECON SUN Power B Series (1000 Vdc and 1500 Vdc):



Electrical Diagram of INGECON SUN STORAGE Power B Series (1000 Vdc and 1500 Vdc):

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Manufacturer:

Ingeteam Power Technology S.A. - Paneles  
Pol. Ind. El Juncarillo, Nave 1  
31293 Sesma (Navarra) - SPAIN

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

May 31, 2016

Sample Report Number:

11251-1-TM

The inspection of manufacturing process was performed in  
manufacture facilities:

June 19, 2019

Inspection Report Number:

10978-19-1-IF