

|                                   |   |  |
|-----------------------------------|---|--|
| <b>Product Certificate Number</b> | <b>11251-3-CER</b>  |  |
| <b>Applicant</b>                  | Ingeteam Power Technology S.A. - Energy<br>Avenida Ciudad De La Innovación, 13.<br>31621. Sarriguren. Navarra. SPAIN  |  |
| <b>Series/</b>                    | INGECON SUN Power Max B Series 1500 Vdc<br>INGECON SUN Power Max B Series<br>INGECON SUN STORAGE Power Max B Series<br>INGECON SUN STORAGE Power Max B Series 1500 Vdc  |  |
| <b>Model/</b>                     | <u>INGECON SUN Power Max B Series</u><br><br>INGECON SUN 830TL B300<br>INGECON SUN 860TL B310<br>INGECON SUN 890TL B320<br>INGECON SUN 915TL B330<br>INGECON SUN 940TL B340<br>INGECON SUN 970TL B350<br>INGECON SUN 1000TL B360<br>INGECON SUN 1025TL B370<br>INGECON SUN 1050TL B380<br>INGECON SUN 1070TL B385<br>INGECON SUN 1080TL B390<br>INGECON SUN 1110TL B400<br>INGECON SUN 1140TL B410<br>INGECON SUN 1165TL B420<br>INGECON SUN XXXXTL BYYY (*)  | <u>INGECON SUN STORAGE Power Max B Series</u><br><br>INGECON SUN STORAGE 830TL B300<br>INGECON SUN STORAGE 860TL B310<br>INGECON SUN STORAGE 890TL B320<br>INGECON SUN STORAGE 915TL B330<br>INGECON SUN STORAGE 940TL B340<br>INGECON SUN STORAGE 970TL B350<br>INGECON SUN STORAGE 1000TL B360<br>INGECON SUN STORAGE 1025TL B370<br>INGECON SUN STORAGE 1050TL B380<br>INGECON SUN STORAGE 1070TL B385<br>INGECON SUN STORAGE 1080TL B390<br>INGECON SUN STORAGE 1110TL B400<br>INGECON SUN STORAGE 1140TL B410<br>INGECON SUN STORAGE 1165TL B420<br>INGECON SUN STORAGE XXXXTL BYYY (*)   |
|                                   | <u>INGECON SUN Power Max B Series 1500 Vdc</u><br>INGECON SUN 1170TL B450<br>INGECON SUN 1195TL B460<br>INGECON SUN 1220TL B470<br>INGECON SUN 1247TL B480<br>INGECON SUN 1273TL B490<br>INGECON SUN 1300TL B500<br>INGECON SUN 1325TL B510<br>INGECON SUN 1350TL B520<br>INGECON SUN 1376TL B530<br>INGECON SUN 1400TL B540<br>INGECON SUN 1430TL B550<br>INGECON SUN 1455TL B560<br>INGECON SUN 1480TL B570<br>INGECON SUN 1500TL B578<br>INGECON SUN 1532TL B590<br>INGECON SUN 1560TL B600<br>INGECON SUN 1580TL B630<br>INGECON SUN 1600TL B615<br>INGECON SUN 1640TL B630<br>INGECON SUN XXXXTL BYYY (**) | <u>INGECON SUN STORAGE Power Max B Series 1500 Vdc</u><br>INGECON SUN STORAGE 1170TL B450<br>INGECON SUN STORAGE 1195TL B460<br>INGECON SUN STORAGE 1220TL B470<br>INGECON SUN STORAGE 1247TL B480<br>INGECON SUN STORAGE 1273TL B490<br>INGECON SUN STORAGE 1300TL B500<br>INGECON SUN STORAGE 1325TL B510<br>INGECON SUN STORAGE 1350TL B520<br>INGECON SUN STORAGE 1376TL B530<br>INGECON SUN STORAGE 1400TL B540<br>INGECON SUN STORAGE 1430TL B550<br>INGECON SUN STORAGE 1455TL B560<br>INGECON SUN STORAGE 1480TL B570<br>INGECON SUN STORAGE 1500TL B578<br>INGECON SUN STORAGE 1532TL B590<br>INGECON SUN STORAGE 1560TL B600<br>INGECON SUN STORAGE 1600TL B615<br>INGECON SUN STORAGE 1640TL B630<br>INGECON SUN STORAGE XXXXTL BYYY (**) |
|                                   | (*) This reference indicates the equipment between 220 V and 420 V of AC voltage (YYY) and between 610 kW and 1165 kW of AC power at 35°C (XXXX).<br>(**) This reference indicates the equipment between 333 V and 630 V of AC voltage (YYY) and between 865 kW and 1640 kW of AC power at 25°C (XXXX).   |  |
| <b>Type of generating unit</b>    | Photovoltaic Inverter   |  |
| <b>Technical Data</b>             | See page 3, 4 and 5   |  |
| <b>Network connection rule</b>    | <b>G59 Issue 3: 2013.</b> Recommendation for the connection of generating plant to the distribution systems of licensed distribution network operators.   |  |

Having assessed the test report numbers: B28-15-AJ-05 performed by Tecnalía Research and Innovation and 11251-1-TR performed by the Certification Entity itself (CERE) based on the requirements of the EN ISO/IEC 17025:2005

The above-mentioned generating unit complies with the requirements of the: **G59 Issue 3: 2013**. Recommendation for the connection of generating plant to the distribution systems of licensed distribution network operators

This certification is according to the CERE internal process PET-CERE-09 Rev 9 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 to ISO 9001 with certificate number: 0.04.12231 issued by a certification body accredited according to EN ISO/IEC 17021.
- Inspection of the manufacturing process.

This certificate cancels and supersedes the certificate number: 10978-3-E1-CER.

Madrid, November 3, 2016. This certificate is valid until November 3, 2019

Miguel Martínez Lavín  
Certification Manager

INGECON SUN Power Max B Series 1500 Vdc

| PV inverters with AC voltage ranging from 333 V to 630 V |  |
|--|--|
| <b>Input (DC)</b>  |  |
| Recommended PV array power range                         | Pdc.min=1,1*Pac (50°C) Pac.max= 1,3*Pac (25 °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  | 2000 A   |
| <b>Output (AC)</b>                                       |  |
| Power @25°C/@50°C  | Pac = (√3) * Vac * Iac   |
| Current @25°C/@50°C                                      | 1500 A/1250 A  |
| Rated Voltage  | Vac = 333 V ... 630 V  |
| Frequency  | 50/60 Hz   |
| Software version   | ABK1000_B  |

INGECON SUN STORAGE Power Max B Series 1500 Vdc

| PV inverters with AC voltage ranging from 333 V to 630 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  | 2000 A  |
| <b>Output (AC)</b>                                       |   |
| Power @25°C/@50°C  | Pac = (√3) * Vac * Iac  |
| Current @25°C/@50°C                                      | 1500 A/1250 A   |
| Rated Voltage  | Vac = 333 V ... 630 V   |
| Frequency  | 50/60 Hz  |
| Software version   | ABK1000_B   |

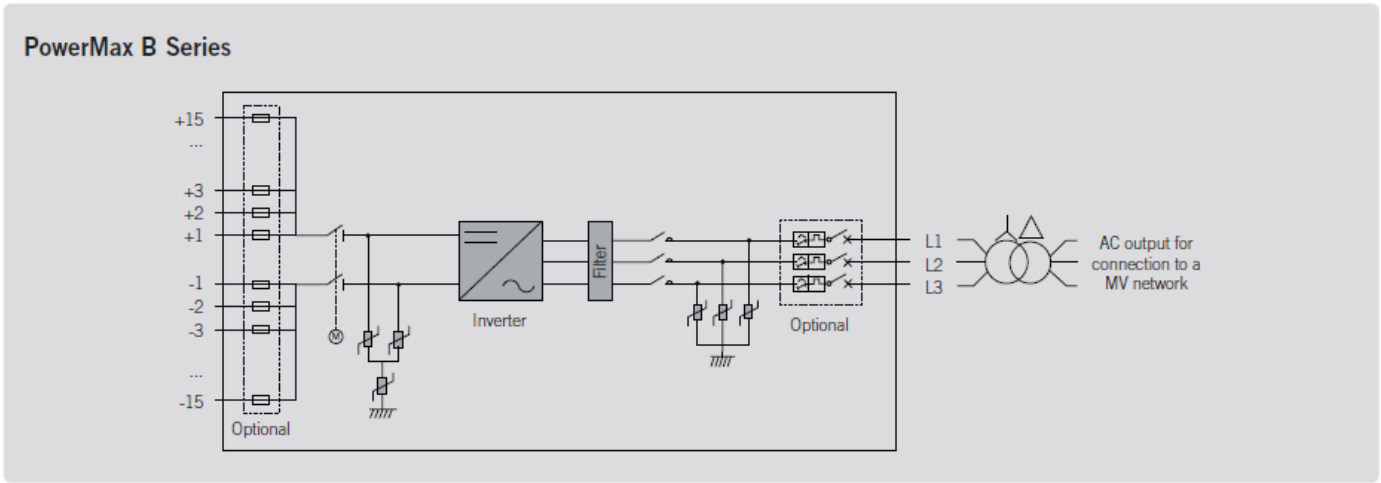
INGECON SUN Power Max B Series 1000 Vdc

| PV inverters with AC voltage ranging from 220 V to 420 V |   |
|--|---|
| <b>Input (DC)</b>  |   |
| Recommended PV array power range                         | $P_{dc.min} = 1,1 * P_{ac} (50^{\circ}C)$ $P_{dc.max} = 1,3 * P_{ac} (35^{\circ}C)$ |
| 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  | $V_{ac} = 220 V \dots 420 V$  |
| Frequency  | 50 Hz/60 Hz   |
| Software version   | ABK1000_A   |

INGECON SUN STORAGE Power Max B Series 1000 Vdc

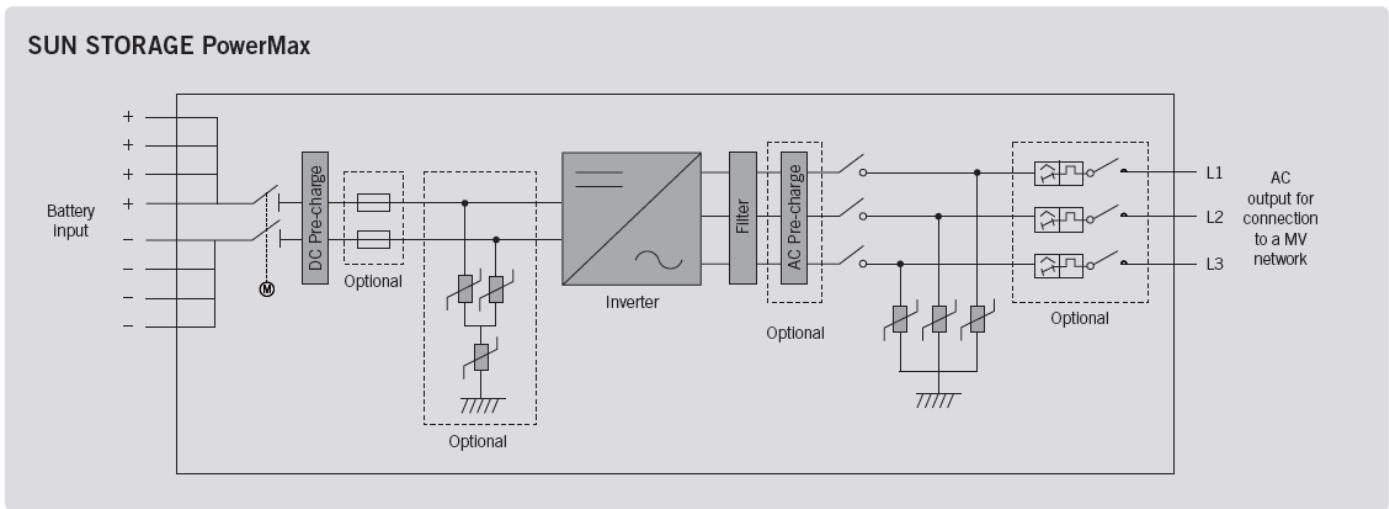
| PV inverters with AC voltage ranging from 220 V to 420 V |  |
|--|--|
| <b>Input (DC)</b>  |  |
| Min. Battery Voltage                                     | $V_{mpp.min} = \frac{1,732 \sqrt{\frac{2}{3} (1,1V)^2 + (0,0311 * I_{max})^2}}{0,985}$ |
| Max. Battery Voltage                                     | 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  | $V_{ac} = 220 V \dots 420 V$   |
| Frequency  | 50 Hz/60 Hz  |
| Software version   | ABK1000_A  |

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



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

:



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:

February 9, 2016

Inspection Report Number:

CERE-C/Ingeteam Paneles