

Product Certificate Number	21567-2-CER
Applicant	INGETEAM POWER TECHNOLOGY, S.A. Ciudad de la Innovación avenue 13 31621, Sarriguren, Navarra (Spain)
Series	INGECON SUN 3Play INGECON SUN STORAGE 3Play
Models	See pages 2 to 6
Type of generating unit	Photovoltaic inverter Energy storage Inverter
Technical Data	See pages 2 to 6
Software version	Photovoltaic inverter: ABS1004_K Energy storage inverter: ABS1008 _I
Network connection Standard	VDE 0126-1-1: 2013-8. Automatic disconnection device between a generator and the public low-voltage grid.

Having assessed the report number: 11505-17-TR (Accredited Laboratory N° 1239/LE2396) and 20266-2-TR-E1 (Accredited Laboratory N° 5314.01) performed by CERE based on the requirements of the EN ISO/IEC 17025: 2017.

The above-mentioned generating unit complies with the requirements of the:

VDE 0126-1-1: 2013-8. Automatic disconnection device between a generator and the public low-voltage grid.

This certification is according to the CERE internal process PET-CERE-09 Rev 35, that defines the certification scheme, 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: ES123508-1 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 20552-4-CER issued on August 25, 2020.

Madrid, April 14, 2023. This certificate is valid until August 25, 2025.

Miguel Martínez Lavin
Certification Director

Technical data

INGECON SUN 3Play

INGECON SUN 100TL STD / INGECON SUN 100TL PRO						
Input (DC)						
Recommended PV array power range	56 – 80,2 kWp	91,1 – 130,5 kWp	96,2 – 137,8 kWp	101,2 - 145 kWp	106,3 – 152,3 kWp	111,3 – 159,5 kWp
Voltage range MPP	513 - 850 V	513 - 850 V	541,5 - 850 V	570 - 850 V	598,5 - 850 V	627 - 850 V
Maximum voltage	1100 V					
Maximum current	185 A					
Output (AC)						
Rated power at rated Vac	55,3 kW	90 kW	95 kW	100 kW	105 kW	110 kW
Maximum current	145 A					
Rated voltage	220 V	360 V	380 V	400 V	420 V	440 V
Rated frequency	50 Hz / 60 Hz					
Adjustable power factor	0 – 1 (leading / lagging)					

For AC voltage ranges not listed in the table above, between 360V and 440V, refer to the following formula:

Input (DC)	
Min MPP Voltage	$V_{ac} \times 1,425$
Max MPP Voltage	850 V
Maximum current	185 A
Output (AC)	
Rated power	$P_{ac} = \sqrt{3} \times V_{ac} \times I_{ac}$
Maximum current	145 A @50°C
Rated voltage	360 - 440 V
Rated frequency	50 Hz / 60 Hz

INGECON SUN 160TL STD / INGECON SUN 160TL PRO						
Input (DC)						
Recommended PV array power range	95 – 136 kWp	113 – 162,5 kWp	141 - 203 kWp	148 - 213 kWp	153,5 - 220 kWp	162 – 233,5 kWp
Voltage range MPP	576 - 1250 V	692 - 1250 V	864 - 1250 V	908 - 1250 V	936 - 1250 V	994 - 1250 V
Maximum voltaje	1500 V					
Maximum current	168 A					
Output (AC)						
Rated power at 25 °C / 40 °C / 50 °C	92,8 kW / 85,9 kW / 83,8 kW	111,4 kW / 103,1 kW / 100,6 kW	139,3 kW / 128,9 kW / 125,8 kW	146,2 kW / 135,3 kW / 132 kW	150,9 kW / 139,6 kW / 136,2 kW	160,1 kW / 148,2 kW / 144,6 kW
Maximum current at 25 °C / 40 °C / 50 °C	134 A / 124 A / 121 A					
Rated voltage	400 V	480 V	600 V	630 V	650 V	690 V
Rated frequency	50 Hz / 60 Hz					
Adjustable power factor	0 – 1 (leading / lagging)					

For AC voltage ranges not listed in the table above, between 400V and 690V, refer to the following formula:

Input (DC)	
Min MPP Voltage	$V_{ac} \times 1,44$
Max MPP Voltage	1250 V
Maximum current	168 A
Output (AC)	
Rated power	$P_{ac} = \sqrt{3} \times V_{ac} \times I_{ac}$
Maximum current	134 A @ 25°C 124 A @ 40°C 121 A @ 50°C
Rated voltage	400 - 690 V
Rated frequency	50 Hz / 60 Hz

INGECON SUN STORAGE 3Play

INGECON SUN STORAGE 100TL HV						
Input (DC)						
Voltage range (Min. / Max)	673 - 1250 V	729 - 1250 V	800 - 1250 V	895 - 1250 V	935 - 1250 V	951 - 1250 V
Maximum voltage	1500 V					
Maximum power (charge /discharge)	80 kW / 97,5 kW	86,6 kW / 98,8 kW	95 kW / 98,8 kW	98,8 kW / 98,8 kW	98,8 kW / 98,8 kW	98,8 kW / 98,8 kW
Maximum current (charge /discharge)	119 A / 144,7 A	119 A / 135,5 A	119 A / 123,5 A	119 A / 110,4 A	119 A / 105,7 A	119 A / 103,9 A
Output (AC)						
Rated power charge (25°C / 40°C / 50°C)	81 / 75 / 73,6 kW	87,6 / 81,3 / 79,7 kW	96,2 / 89,2 / 87,5 kW	100 / 99,8 / 97,9 kW	100 / 100 / 100 kW	100 / 100 / 100 kW
Rated power discharge (25°C / 40°C / 50°C)	98,6 / 91,3 / 89 kW	100 / 98,8 / 96,4 kW	100 / 100 / 100 kW	100 / 100 / 100 kW	100 / 100 / 100 kW	100 / 100 / 100 kW
Maximum current charge (25°C / 40°C / 50°C)	110 / 102 / 100 A					
Maximum current discharge (25°C / 40°C / 50°C)	134 / 124 / 121 A	125,5 / 124 / 121 A	114,3 / 114,3 / 114,3 A	102,2 / 102,2 / 102,2 A	97,9 / 97,9 / 97,9 A	96,2 / 96,2 / 96,2 A
Rated voltage	425 V	460 V	505 V	565 V	590 V	600 V
Rated frequency	50 Hz / 60 Hz					
Adjustable power factor	0 – 1 (leading / lagging)					

INGECON SUN STORAGE 140TL HV						
Input (DC)						
Voltage range (Min. / Max)	673 - 1250 V	729 - 1250 V	800 - 1250 V	895 - 1250 V	935 - 1250 V	951 - 1250 V
Maximum voltage	1500 V					
Maximum power (charge/ discharge)	80 kW / 97,5 kW	86,6 kW / 98,8 kW	95,1 kW / 115,8 kW	106,4 kW / 129,6 kW	111,1 kW / 135,3 kW	112,9 kW / 137,6 kW
Maximum current (charge/discharge)	119 A / 144,7 A					
Output (AC)						
Rated power charge (25°C / 40°C / 50°C)	81 / 75,1 / 73,6 kW	87,6 / 81,3 / 79,7 kW	96,2 / 89,2 / 87,5 kW	107,6 / 99,8 / 97,9 kW	112,4 / 104,2 / 102,2 kW	114,3 / 106 / 103,9 kW
Rated power dis- charge (25°C / 40°C / 50°C)	98,6 / 91,3 / 89,1 kW	106,8 / 98,8 / 96,4 kW	117,2 / 108,5 / 105,8 kW	131,1 / 121,3 / 118,4 kW	136,9 / 126,7 / 123,7 kW	139,3 / 128,9 / 125,7 kW
Maximum current charge (25°C / 40°C / 50°C)	110 / 102 / 100 A					
Maximum current discharge (25°C / 40°C / 50°C)	134 / 124 / 121 A					
Rated voltage	425 V	460 V	505 V	565 V	590 V	600 V
Rated frequency	50 Hz / 60 Hz					
Adjustable power factor	0 – 1 (leading / lagging)					

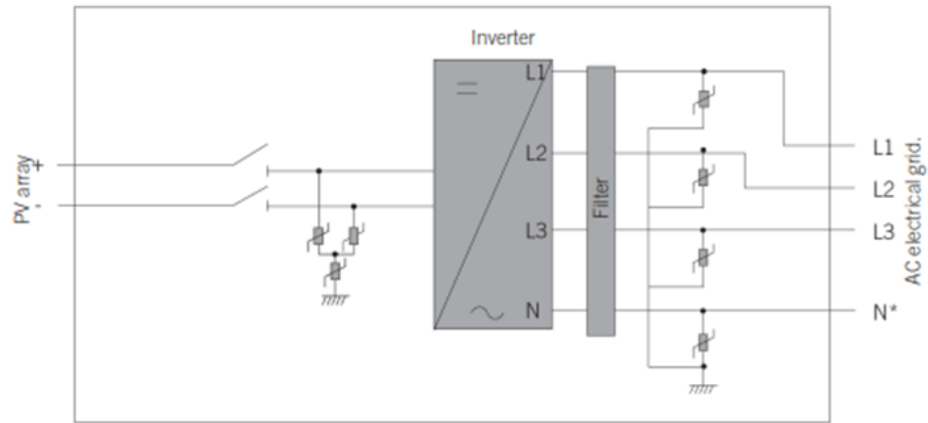
For AC voltage ranges not listed in the tables above, between 425V and 600V, refer to the following formula:

Input (DC)	
Vmin Batt	$V_{ac} \times 1,44 \times 1,1$
Vmax Batt	1250 V
Maximum current (charge / discharge)	119 A / 144,7 A
Output (AC)	
Rated power	$P_{ac} = \sqrt{3} \times V_{ac} \times I_{ac}$
Maximum current (charge / discharge)	110 A / 134 A @ 25°C 102 A / 124 A @ 40°C 100 A / 121 A @ 50°C
Rated voltage	425 - 600 V
Rated frequency	50 Hz / 60 Hz

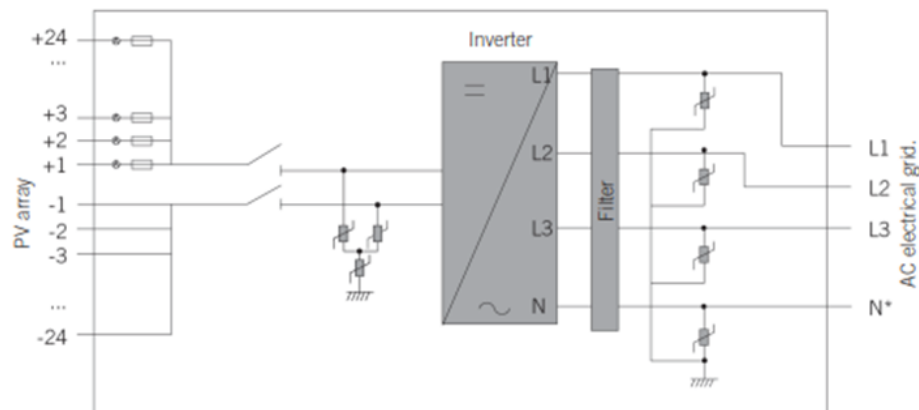
Models	INGECON SUN STORAGE 100TL
Input (DC)	
Voltage range	627 - 850 V
Maximum Voltage	1100 V
Maximum power (charge/discharge)	60 kW / 100 kW
Maximum current charge/discharge	96 A / 159 A
Output (AC)	
Maximum active power (charge/discharge)	60 kW / 100 kW
Maximum reactive power	Q _{max} =60 kVAR @ S=100 kVA
Maximum current (charge/discharge)	87 A / 145 A
Rated voltage	400 V
Frequency	50 Hz / 60 Hz

- Electrical diagram of INGECON SUN 3Play

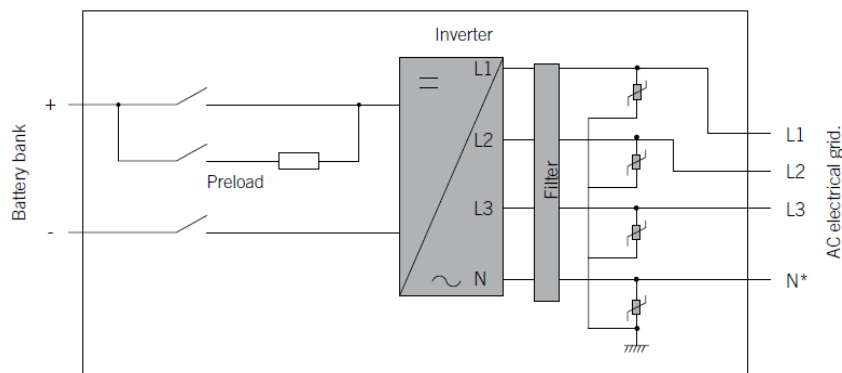
STD Version



PRO Version



- Electrical diagram of INGECON SUN STORAGE 3Play



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

INGETEAM POWER TECHNOLOGY S.A. (Paneles)
Polígono Industrial El Juncarillo
31293, Sesma. Navarra. Spain

Sample Report Number:

11505-1-TM
20266-TM

The inspection of manufacturing process was performed in:
On June 14, 2022

INGETEAM POWER TECHNOLOGY S.A. (Paneles)
Polígono Industrial El Juncarillo
31293, Sesma. Navarra. Spain

Inspection Report Number:

21596-22-1-IF

RECORD OF CHANGES

Revision	Reason of the modification	Modification	Date
0	Initial version/Update of certificate 20552-4-CER	Inclusion of new variant models (Pages 2 to 6) and the update of the software version (Page 1)	14/04/2023