INGECON **SUN STORAGE** 3Play TL Series

THREE-PHASE TRANSFORMERLESS BATTERY INVERTER WITH THE MAXIMUM POWER DENSITY

100TL

Three-phase battery inverters for commercial, industrial and large-scale systems. These bi-directional storage inverters feature the same technology as Ingeteam's central photovoltaic inverters.

Lower operational costs
Thanks to the wireless communication network that the INGECON® SUN STORAGE 100TL enables, the storage system could be commissioned, monitored and controlled without cables. Moreover, its string inverter philosophy allows for a fast and easy replacement that does not require qualified technicians.

Greater flexibility and power density
A greater flexibility is possible thanks to its maximum DC voltage (1,100 V) and to its wide input voltage range (570-850 V). Great power density, with 100 kW of power in only 80 kg.

Robust and long-lasting design
Aluminium casing, especially conceived for outdoor installations (IP65). The design of the INGECON® SUN STORAGE 3Play inverter family guarantees the maximum life expectancy and the best features, even with high temperatures.

Ethernet and Wi-Fi as standard
This battery inverter features Ethernet and Wi-Fi communications as standard. These communications, together with the webserver that the inverter integrates, allow for a faster and more reliable commissioning by using a mobile phone, tablet or laptop. Furthermore, it is compatible with an external Cloud Connect.

Standard 5 year warranty, extendable up to 25 years

www.ingeteam.com
solar.energy@ingeteam.com

Ingeteam

100TL

MAIN FEATURES

- Low voltage ride-through capability.
- Reactive power capability.
- Compatible with external Cloud Connect software.
- 98.8% maximum efficiency.
- Ethernet and Wi-Fi communications supplied as standard.
- Integrated Webserver.
- Software INGECON® SUN Monitor for PV plant monitoring.
- Suitable for indoor and outdoor installations (IP65).
- High temperature performance.
- 4 digital inputs and 2 digital outputs.
- It is necessary to add a pre-charge system.

PROTECTIONS

- Shortcircuits and overloads at the output.
- Anti-islanding with automatic disconnection.
- Insulation faults.
- AC overvoltages with type 2 surge arresters.
- DC overvoltages with type 2 surge arresters.

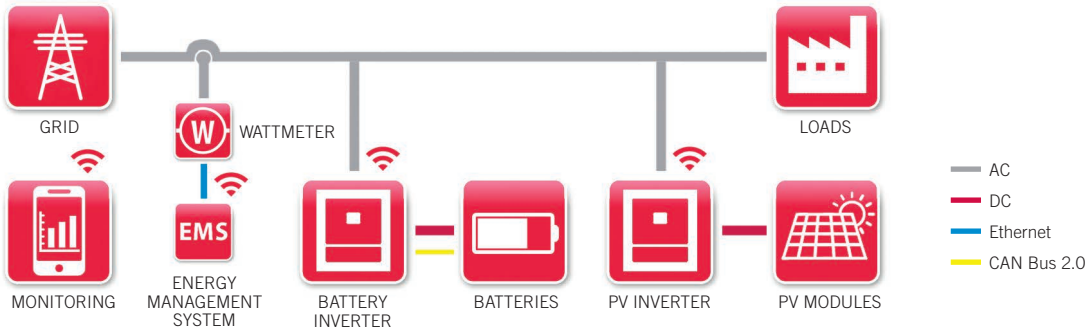
OPTIONAL ACCESSORIES

- Self-consumption kit.
- RS-485 communication.

BENEFITS

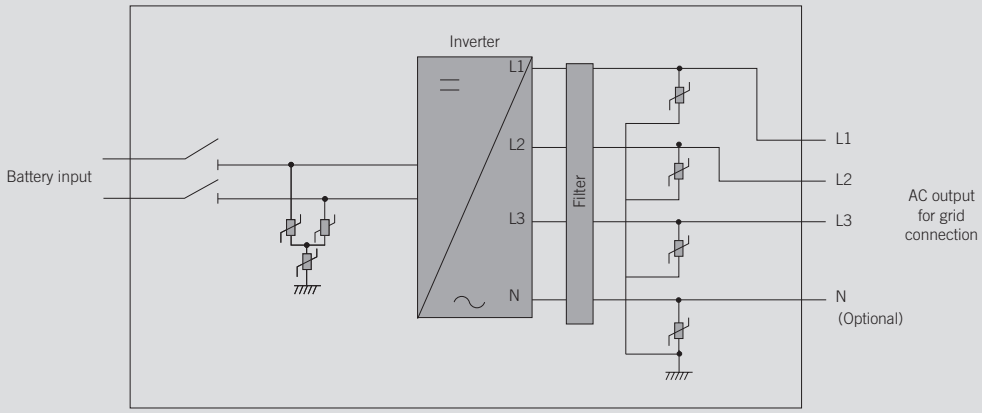
- Greater power density.
- Greater cost-effectiveness thanks to the cabling cost reduction.
- High availability compared to central inverters.
- High efficiency rates.
- Easy maintenance.

WIRING DIAGRAM

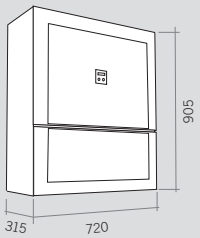


	Integrated elements
Terminal blocks	✓
DC switch	✓
DC surge arresters, type 2	✓
AC surge arresters, type 2	✓

3Play TL



Size and weight (mm)

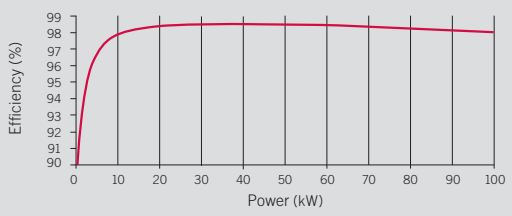


100TL
80 kg.

	100TL
Input (DC)	
Voltage range[1]	627 - 850 V
Maximum voltage[2]	1,100 V
Maximum power (charge / discharge)	60 kW / 100 kW
Maximum current (charge / discharge)	111 A / 185 A
Battery type	Li-ion, lead
Shortcircuit current	240 A
Communication with the BMS (Battery Management System)	CAN Bus 2.0 / Ethernet
Output (AC)	
Rated power	100 kW
Max. temperature at rated power[3]	50 ºC
Maximum current	145 A
Rated voltage	400 V
Rated frequency	50 / 60 Hz
Power factor	1
Adjustable power factor	Yes. Smax=100 kVA Qmax=60 kVAR
THD	<3%
Efficiency	
Maximum efficiency	98.8%
Euroefficiency	98.1%
General Information	
Refrigeration system	Forced ventilation
Air flow	570 m³/h
Stand-by consumption	20 W
Consumption at night	1 W
Ambient temperature	-25 ºC to 60 ºC
Relative humidity (non-condensing)	0 - 100%
Protection class	IP65 / NEMA 4
RCD	1,000 mA
Maximum operating altitude[4]	3,000 m
Connection	AC: Max. Cross section: 240 mm² (one wire) DC connection: Max. Cross section: 300 mm² (one wire) Copper and Aluminium cabling permitted for DC and AC
Marking	CE
EMC and safety standards	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12, EN 62109-1, EN 62109-2, IEC62103, EN 50178, FCC Part 15, IEC60068-2-1:2007, IEC60068-2-2:20007, IEC60068-2-14:2009, IEC60068-2-30:2005, IEC62116, IEC61683 y EN50530
Grid connection standards	DIN V VDE V 0126-1-1, Arrêté du 23 avril 2008, EN 50438, EN 50439, EN 50549, CEI 0-21, CEI 0-16 VDE-AR-N 4105:2011-08, G59/3, P.O.12.3, AS4777.2, AS62040.1.1, BDEW, IEC 62116, IEC 61727, UNE 206007-1, ABNT NBR 16149, ABNT NBR 16150, Brazilian Grid Code, South African Grid Code, Chilean Grid Code, DEWA 2.0, Jordanian Grid Code, Thailand MEA & PEA requirements

Notes: [1] The minimum battery voltage (627 V) has been calculated for $V_{gridmax}$ = 1.085 p.u. and Cos Phi = 1. If $V_{gridmax}$ is different from that value, then the minimum battery voltage must be calculated as V_{batmin} = 627 * $V_{gridmax}$ / 1.085 [2] The inverter does not start operating until Vdc <1,000 V [3] For each ºC of increase, the output power will be reduced at the rate of 2.3% [4] Beyond 1,000 m, the maximum temperature at rated power will decrease at the rate of 5.5 ºC per every additional 1,000 m.

Efficiency INGECON® SUN STORAGE 100TL Vdc = 627 V



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