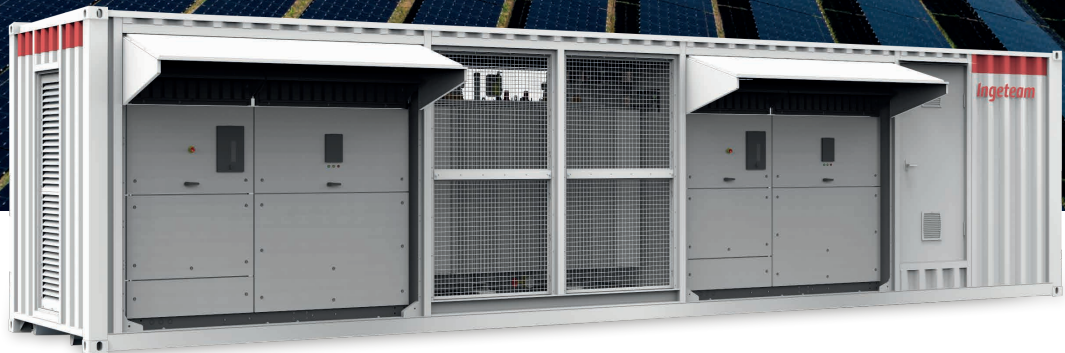
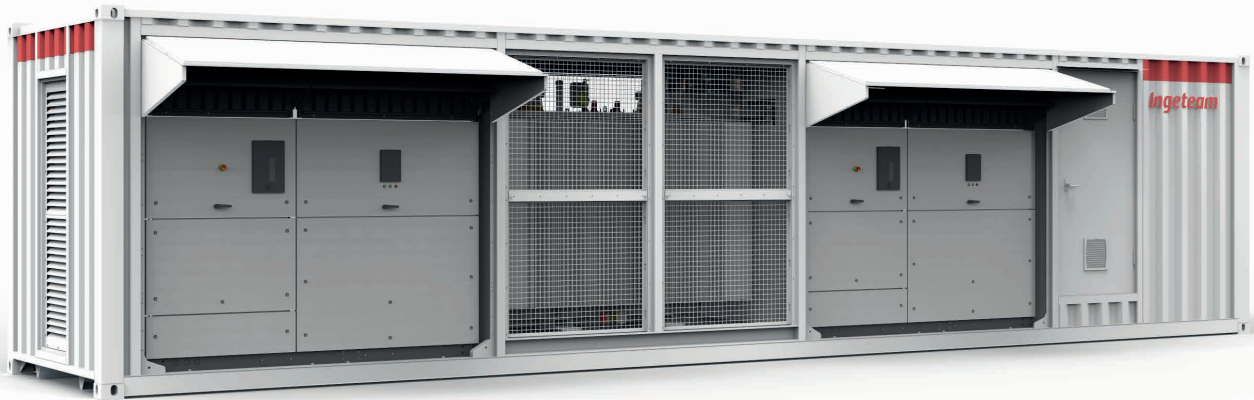


**INGECON** SUN PowerStation



20 and 40-foot MV  
turnkey solutions,  
customised up to 5000 kVA  
with 1500 V Outdoor Inverters

***Ingeteam***



## From 830 to 5000 kVA

The complete turnkey solution, customized up to 5 MW. 20 or 40 ft. container with natural air cooling system for adverse environmental conditions

Thanks to its CSC approval for overseas shipment, the INGECON® SUN PowerStation CON20 and CON40 can be marketed and installed everywhere in the world. They are fully equipped containers with five or four separate compartments, central inverters, Medium Voltage switchgear and LV / MV transformer (up to 5,000 kVA).

### Robust and long-lasting design

The INGECON® SUN PowerStation CON20 and CON40 are standard solutions specifically designed to maximise the compactness and cost-effectiveness of the overall equipment. Thus, the transformer is naturally aircooled, as it is located in an outdoor compartment. The switchgear and communications panels are installed in an IP55 compartment to ensure their maximum protection. The sandwich panels of this compartment are made of galvanized painted steel, filled with a 40 mm layer of rigid fire proof polyurethane foam, ensuring perfect waterproofness over time and efficient thermal insulation.

### Equipped with everything necessary

High efficiency inverters, auxiliary services switchgear, Medium Voltage cubicle and LV / MV transformer. Available with high-speed Ethernet / Fiber Optic communication infrastructure for Plug & Play connection to PV Plant Controller, monitoring and SCADA systems.

### Complete accessibility

Thanks to its innovative design, all devices are readily accessible. The use of outdoor central inverters provides full access and the possibility of maintenance for all the equipment from the external part of the inverter station.

### Ideal for adverse environments

The INGECON® SUN PowerStation CON20 and CON40 are standard solutions able to withstand adverse environmental conditions without any loss of performance.

### Maximum power density

This INGECON® SUN PowerStation CON20 or CON40 feature two or three B Series PowerMax PV inverters, Ingeteam's most compact PV inverter, as it provides more power per cubic foot. This makes it possible to achieve up to 3,300 kVA in only 20-feet and up to 5,000 kVA in only 40-feet inverter station.

### Grid support

The INGECON® SUN PowerMax PV inverters have been designed to comply with the most demanding international grid codes, contributing to the quality and stability of the electric system. Low voltage ride-through capability, reactive power deliverance and active power control are just some of their main features.



**CON20 NA / NA / FA  
up to 3300 kVA**



**CON40 NA / NA / FA  
up to 5000 kVA**

MAIN FEATURES

- Output power up to 5,000 kVA.
- Equipped with IP54 protection degree central inverters. <sup>(1)</sup>
- Available with oil immersed hermetically sealed LV / MV transformer (up to 5,000 kVA / 36 kV) in IP21 compartment.
- Available with IP55 compartment for MV Switchgear and LV equipment.
- Rated power up to 50 °C ambient temperature. <sup>(1)</sup>
- Protected against direct solar radiation.
- CSC certification for container shipping.
- Plug & Play solution.
- Maximum reliability, higher safety and reduced maintenance.
- Installation Altitude: 3,000 m above sea level. <sup>(1)</sup>

<sup>(1)</sup> Refer to Technical Characteristics tables for further details.

ELECTRICAL PROTECTIONS

- Reverse polarity.
- Output short-circuits and overloads.
- DC fuses.
- Motorized DC switches with door control.
- AC thermal-magnetic breakers with door control.
- DC and AC overvoltage suppressors.
- Anti-islanding monitoring system with automatic disconnection.
- Insulation monitoring system.
- Automatic disconnection system in case of LV / MV transformer overheat.
- Emergency disconnection button, accessible from outside.
- DGPT2 protection relay included in the transformer.
- MV protection with fuse or circuit breaker protections.

STANDARD EQUIPMENT

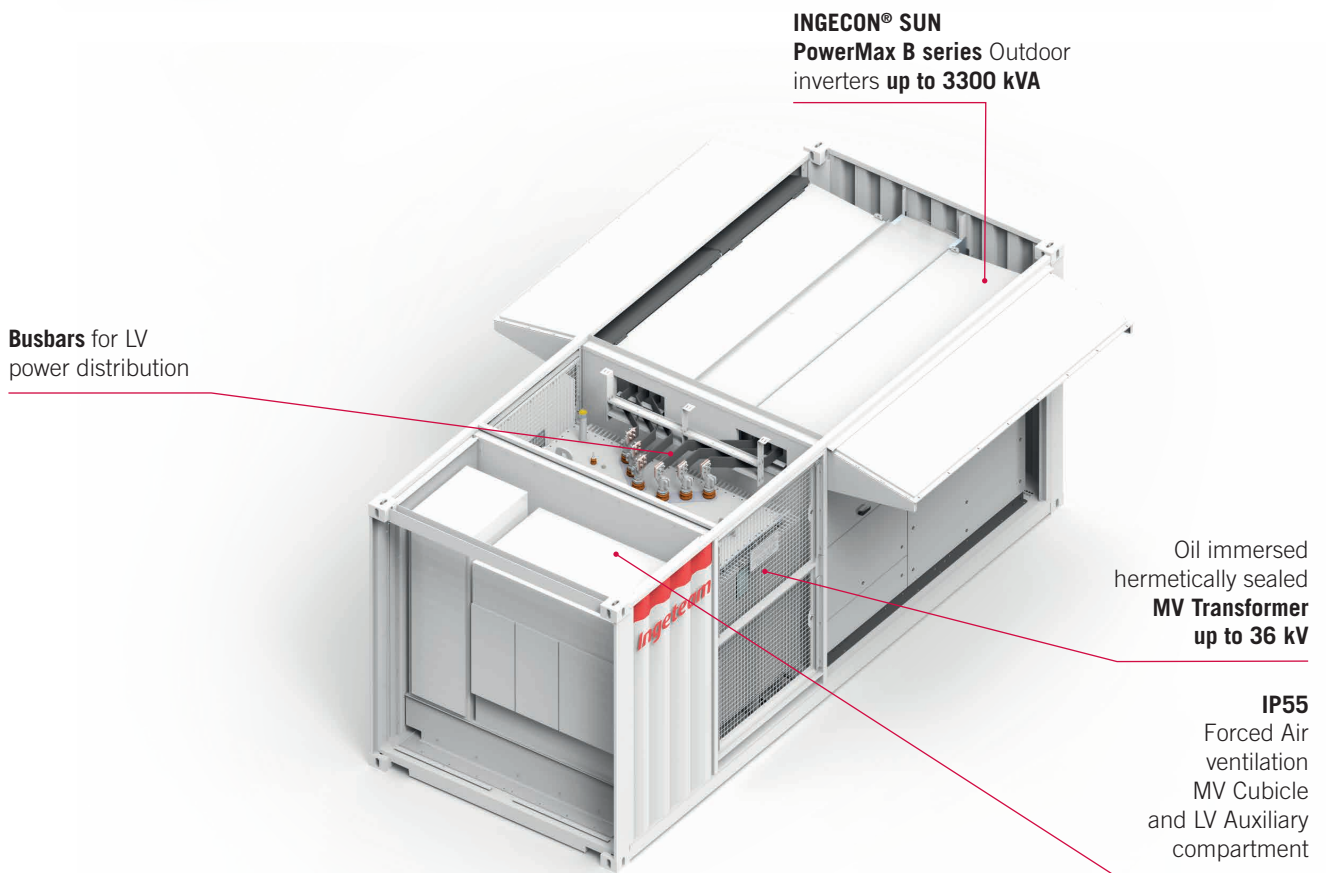
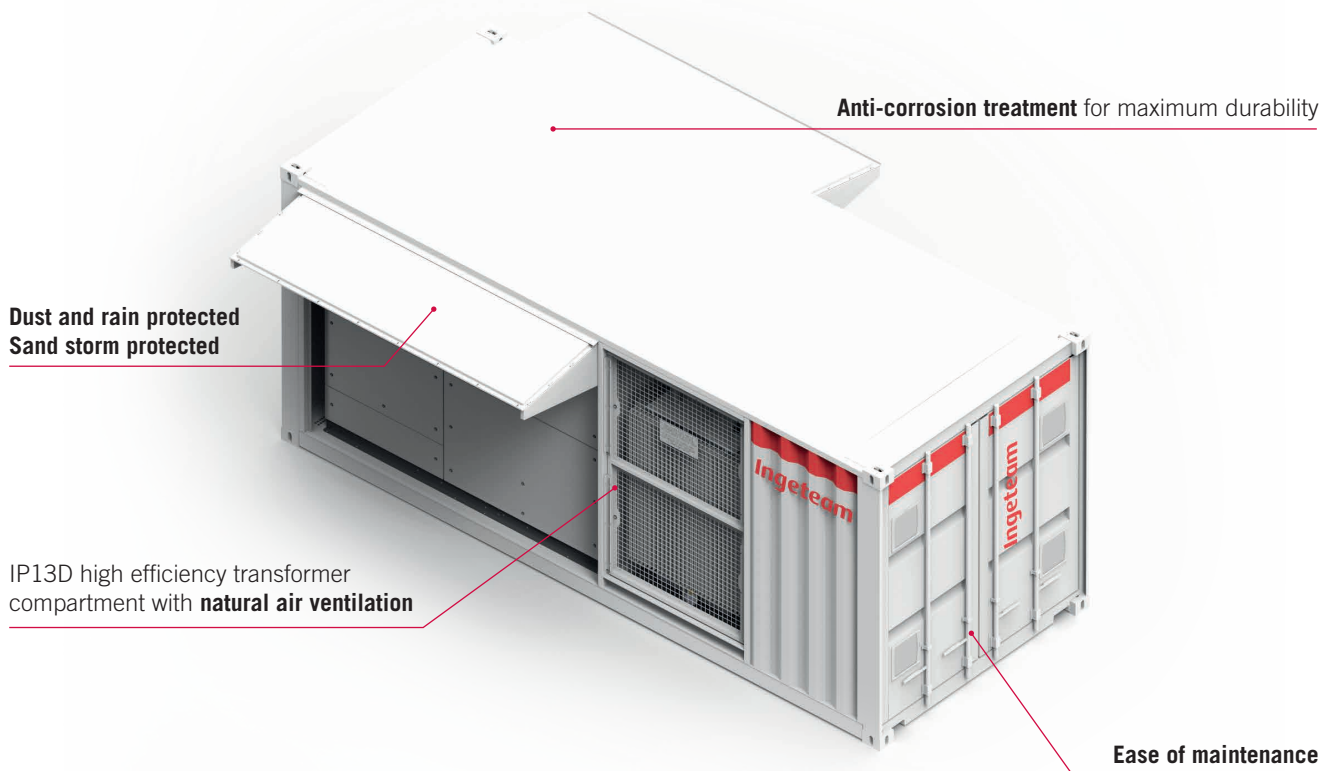
- LV / MV transformer with reduced power losses.
- One, two or three INGECON® SUN PowerMax B Series central PV inverters.
- MV switchgear (1P-0L, 1P-1L, 1P-2L configuration).
- Auxiliary power outlet.
- Fully equipped auxiliary services panel.
- Internal and emergency lighting systems.
- Fire detection system with automatic disconnection (both DC and AC sides).
- Medium Voltage safety kit.
- First aid kit and safety signals.

OPTIONAL EQUIPMENT

In addition to the standard equipment, the INGECON® SUN PowerStation can be supplied with the following options:

- LV / LV transformer for the power supply to the auxiliary services panel.
- Power losses reduction according to EU 548/2014.
- Auxiliary services feeder kit.
- UPS for auxiliary services.
- High-speed Ethernet / Fiber Optic communication infrastructure for Plug & Play connection to Power Plant Controller and / or SCADA systems.
- INGECON® SUN StringControl 16 / 24 / 32 channels intelligent or passive string combiner boxes.
- INGECON® SUN SCADA supervision, control and data acquisition system.
- INGECON® EMS Plant Controller compliant with the most widely international Grid Codes.
- Gateway for monitoring and control of the PV Plant by the Grid Operator using standard protocols (like IEC 61850, IEC 60870-5-101/104, DNP 3.0, etc.).
- Sand trap kit.
- Meteo station.
- HV surge arresters.
- Anti-rodent system.
- Human intrusion detection system.
- Internal and / or external lighting.
- Oil retention tank (separately supplied).
- Energy meter for auxiliary services and / or energy production.
- Insulation Monitoring Relay for continuous monitoring of IT systems insulation.
- Three-phase Capacitors with blocking inductances for Power Factor correction.
- DC and AC cable terminals.
- Reactive power regulation with no PV array power.
- Ground connection of the PV array.
- Painted with specific RAL upon request.

Solution up to 3300 kVA (Up to 2 PV inverters)



\* Illustrative image. It might not correspond with the basic configuration.

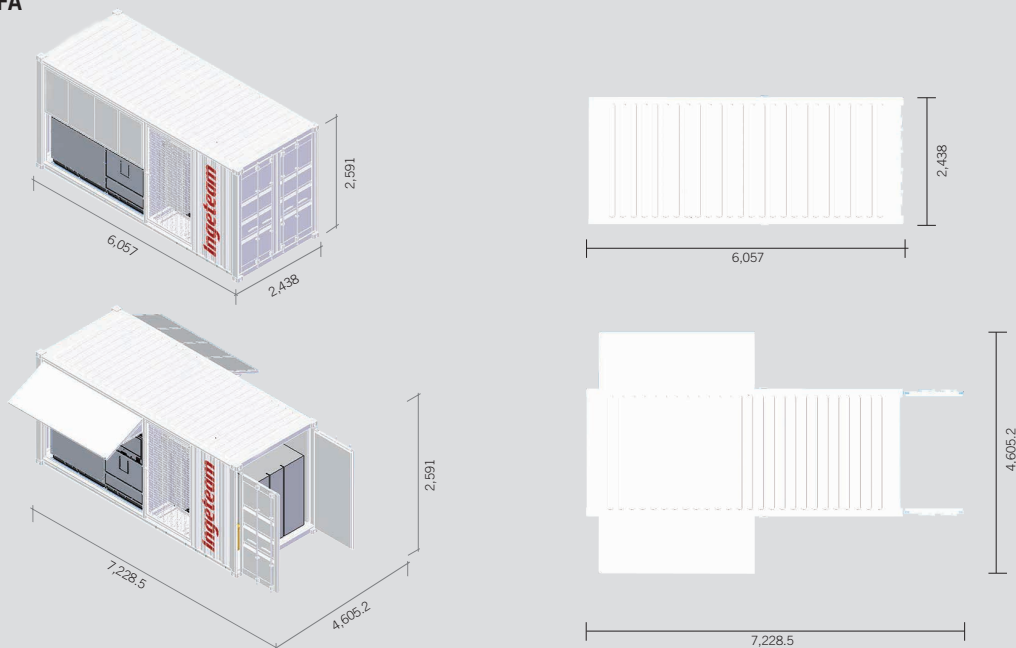


		CON20 NA / NA / FA
<b>General Information</b>		
Inverter Compartment	Cooling system	Natural air ventilation (forced air ventilation inside the inverters)
	Max. power consumption	8,5 kVA
	Protection degree	Outdoor PV inverters (IP54)
	Max. power @ 1,000 Vdc	2,550 kVA @ 35 °C 2,346 kVA @ 50 °C (with 2 inverters)
	Max. power @ 1,500 Vdc	3,280 kVA @ 30 °C 2,950 kVA @ 50 °C (with 2 inverters)
LV / MV Transformer compartment <sup>(1)</sup>	Cooling system	Natural air ventilation
	Air extraction / Air intake	Protective metal grids
	Max. power consumption	0 W
	Protection degree	IP13D (outdoor transformer)
MV Cubicle compartment <sup>(2)</sup>	Cooling system	Forced air with temperature control
	Air extraction / Air intake	Filtered anti-rain grids
	Max. power consumption	65 W
	Protection degree	IP55 / NEMA 3R
Operating temperature range		-20 °C to +55 °C <sup>(3)</sup>
Relative humidity (non-condensing)		0-100%
Installation altitude <sup>(4)</sup>		3,000 m above sea level
<b>Equipment</b>		
Inverter version		B series
Auxiliary Services Switchgear		Standard version (Full version and high-speed communication infrastructure optional)
LV / MV Transformer		Oil immersed hermetically sealed
MV Switchgear		0L1P, 1L1P or 2L1P cells with either fuses or circuit breaker protection
<b>Mechanical Information</b>		
Structure Material		Steel
MV Switchgear insulation grade		Sandwich panels containing a rigid fire-proof polyurethane foam filling

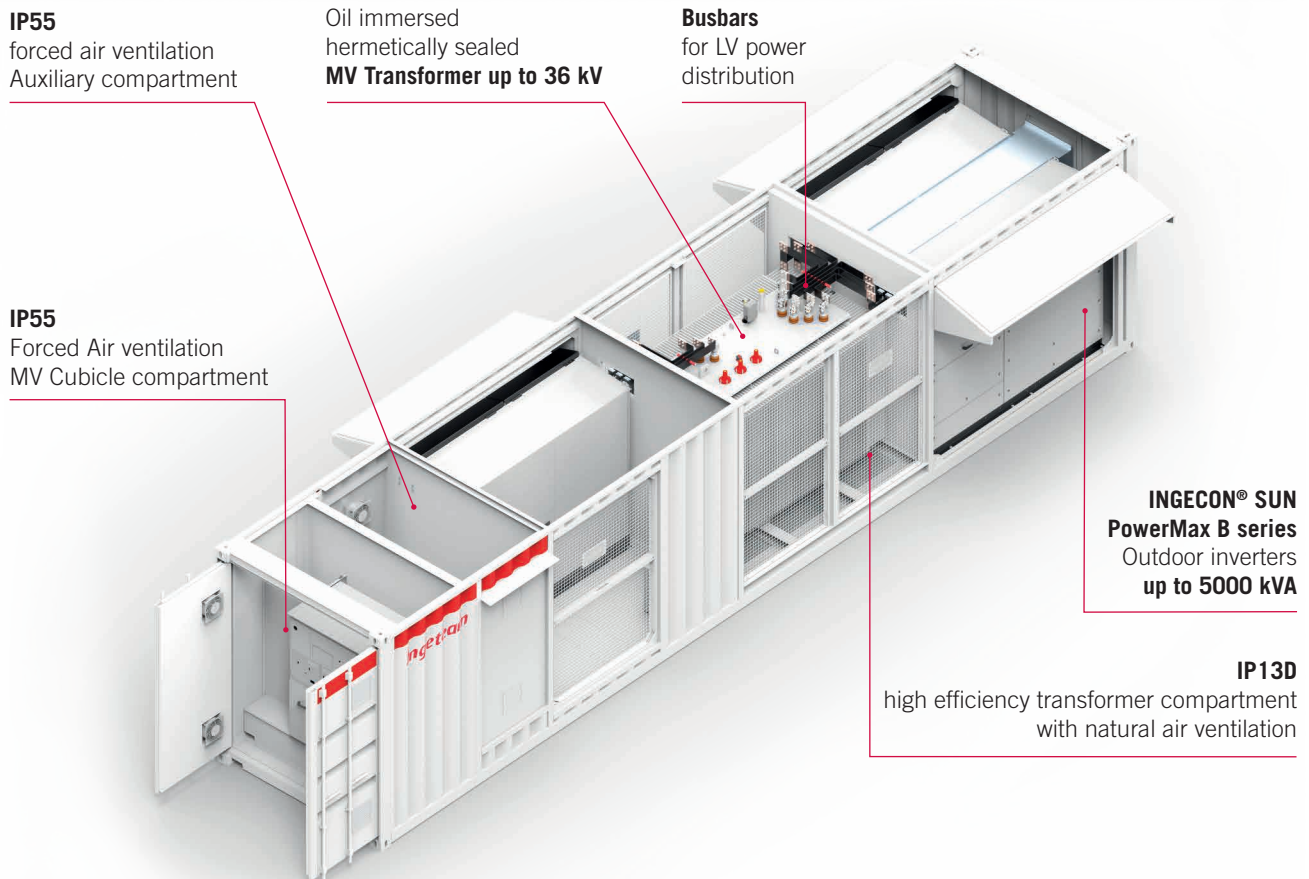
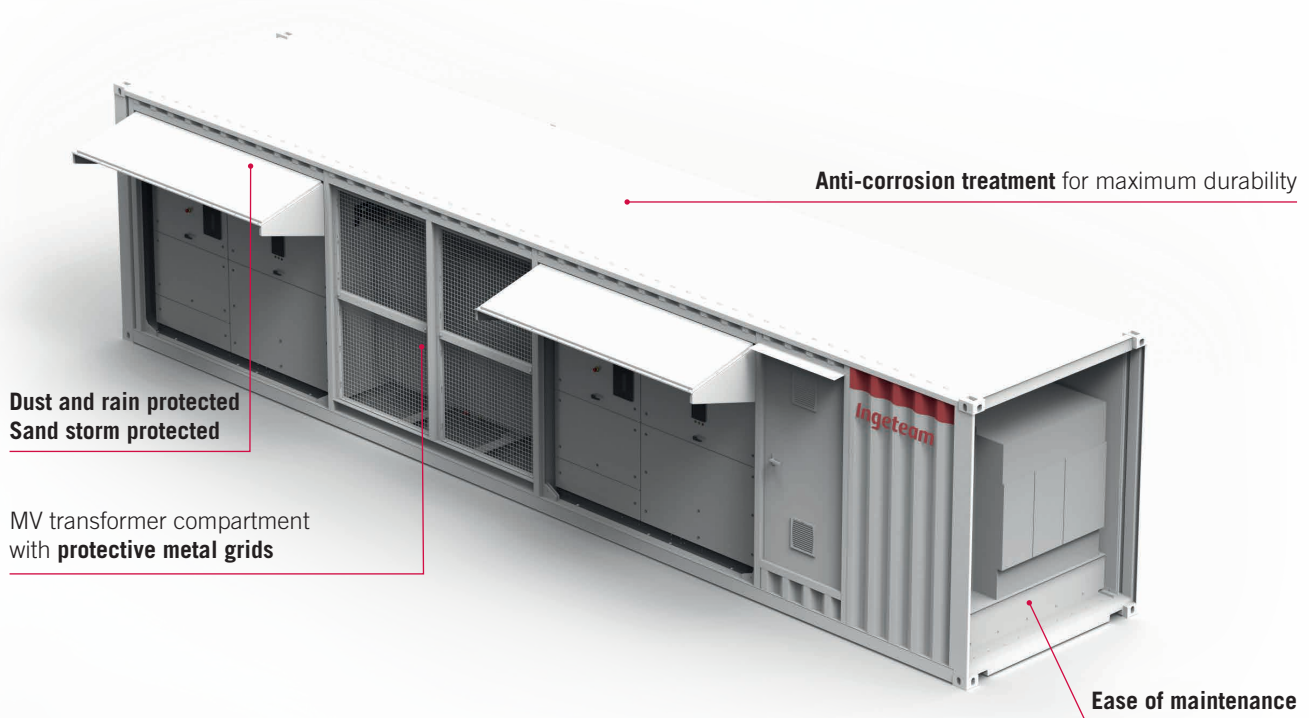
**Notes:** <sup>(1)</sup> Including instrumentation, auxiliary services switchgear, monitoring systems <sup>(2)</sup> Equipped with oil immersed hermetically sealed LV / MV transformer <sup>(3)</sup> -30 °C with optional kit <sup>(4)</sup> Please contact Ingeteam for altitudes higher than 1,000 m.

Size (mm)	Length	Width	Height
Body dimensions	6,057	2,438	2,591
Overall dimensions with all doors open	7,228.5	4,605.2	2,591
Foundation dimensions	8,000	5,000	300

CON20 NA / NA / FA



Solution up to 5000 kVA (Up to 3 PV inverters)



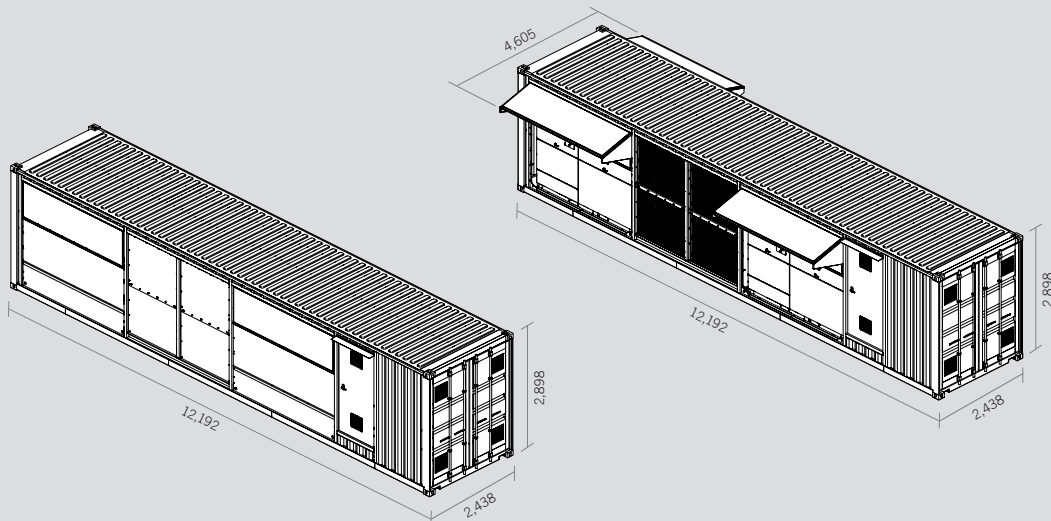
\* Illustrative image. It might not correspond with the basic configuration.

CON40 NA / NA / FA		
<b>General Information</b>		
Inverter Compartment	Cooling system	Natural air ventilation (forced air ventilation inside the inverters)
	Max. power consumption	12.75 kVA
	Protection degree	Outdoor PV inverters (IP54)
	Max. power @ 1,000 Vdc	3,825 kVA @ 35 °C 3,519 kVA @ 50 °C (with 3 inverters)
	Max. power @ 1,500 Vdc	4,920 kVA @ 30 °C 4,420 kVA @ 50 °C (with 3 inverters)
LV / MV Transformer compartment <sup>(1)</sup>	Cooling system	Natural air ventilation
	Air extraction / Air intake	Protective metal grids
	Max. power consumption	0 W
	Protection degree	IP13D
MV Switchgear compartment <sup>(2)</sup>	Cooling system	Forced air with temperature control
	Air extraction / Air intake	Filtered anti-rain grids
	Max. power consumption	65 W
	Protection degree	IP55
Operating temperature range		-20 °C to +55 °C <sup>(3)</sup>
Relative humidity (non-condensing)		0-100%
Installation altitude <sup>(4)</sup>		3,000 m above sea level
<b>Equipment</b>		
Inverter version		B series
Auxiliary Services Switchgear		Standard version (Full version and high-speed communication infrastructure optional)
LV / MV Transformer		Oil immersed hermetically sealed
MV Switchgear		0L1A, 1L1A or 2L1A cells with circuit breaker protection
<b>Mechanical Information</b>		
Structure Material		Steel
Insulation		Sandwich panels containing a rigid fire-proof polyurethane foam filling

**Notes:** <sup>(1)</sup> Equipped with oil immersed hermetically sealed LV / MV transformer <sup>(2)</sup> Including instrumentation, auxiliary services switchgear, monitoring systems <sup>(3)</sup> -30 °C with optional kit <sup>(4)</sup> Please contact Ingeteam for altitudes higher than 1000 m.

Size (mm)	Length	Width	Height
Body dimensions	12,192	2,438	2,898
Overall dimensions with all doors open	13,452	4,605	2,898
Foundation dimensions	13,500	4,450	300

CON40 NA / NA / FA





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