

**MEDIUM VOLTAGE
ELECTROLYZER
CONVERTER
STATION WITH ALL
THE COMPONENTS
SUPPLIED ON TOP
OF THE SAME
SKID PLATFORM**

This medium-voltage solution integrates all the necessary elements to develop a large-scale hydrogen electrolysis plant.

Maximize your investment with a minimal effort

Ingeteam's FSK E6000 / E12000 power station is a compact, customizable and flexible solution that can be configured to suit each customer's requirements. All the equipment is suitable for outdoor installation, so there is no need of any kind of housing.

Higher adaptability and power density

This power station is very versatile, as it presents the MV/LV step-down transformer integrated into a steel platform together with the LV and MV components, including the converters.

Plug & Play technology

This MV solution integrates power conversion equipment, liquid-filled hermetically sealed transformer up to 40.5 kV and provision for low voltage equipment. The MV Skid is delivered pre-assembled for a fast on-site connection with two converters from Ingeteam's INGECON® H2 E-lyzer converter family.

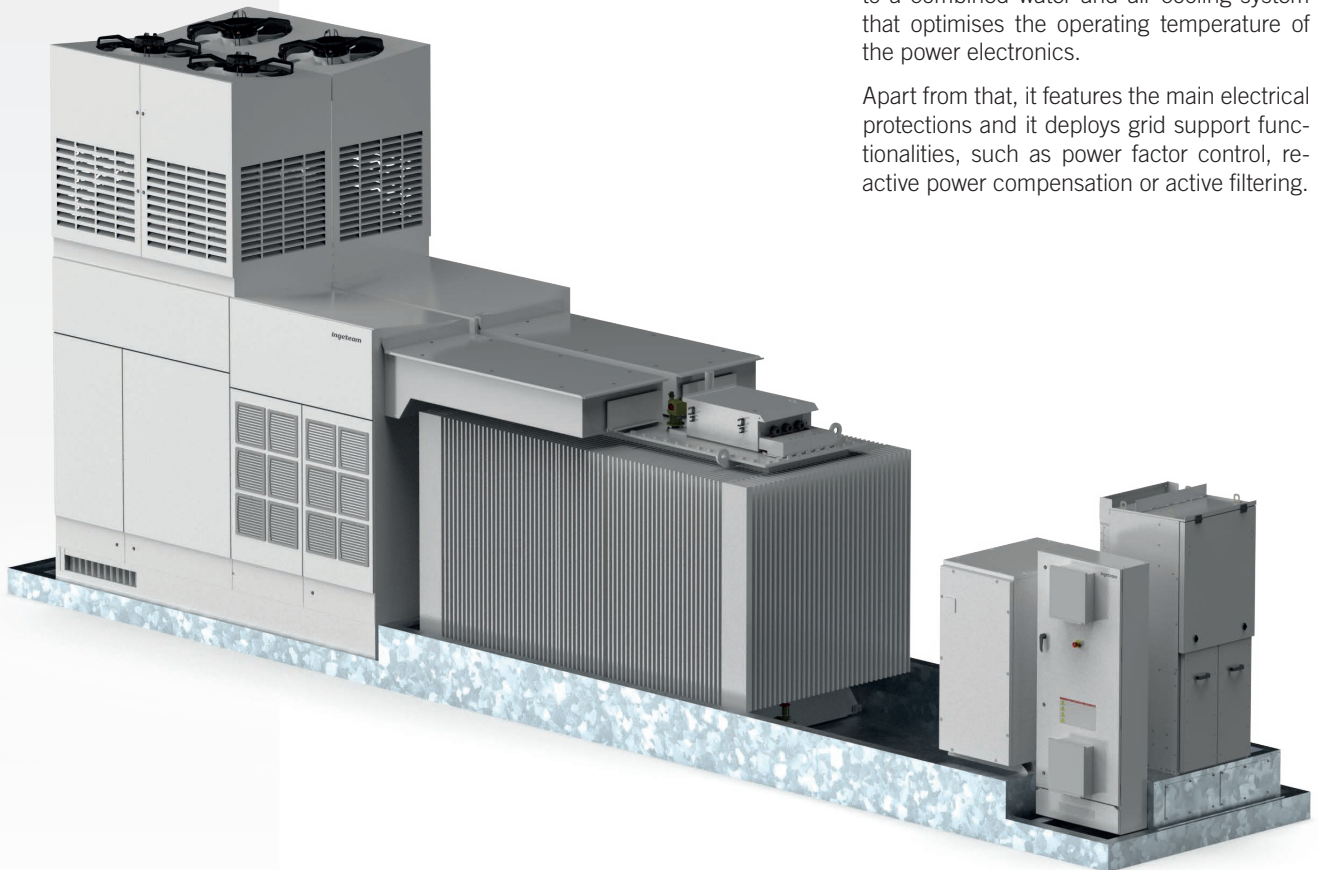
Complete accessibility

Thanks to the lack of housing, the converters, the switchgear and the transformer can have immediate access. Furthermore, the design of the E-lyzer converters has been conceived to facilitate maintenance and repair works.

Maximum protection

Ingeteam's E-lyzer converters feature an IP65 protection class for their power stacks thanks to a combined water and air cooling system that optimises the operating temperature of the power electronics.

Apart from that, it features the main electrical protections and it deploys grid support functionalities, such as power factor control, reactive power compensation or active filtering.



CONSTRUCTION

- Steel base frame.
- Suitable for slab or piers mounting.
- Compact design, minimising freight costs.
- Minimum installation at project site.

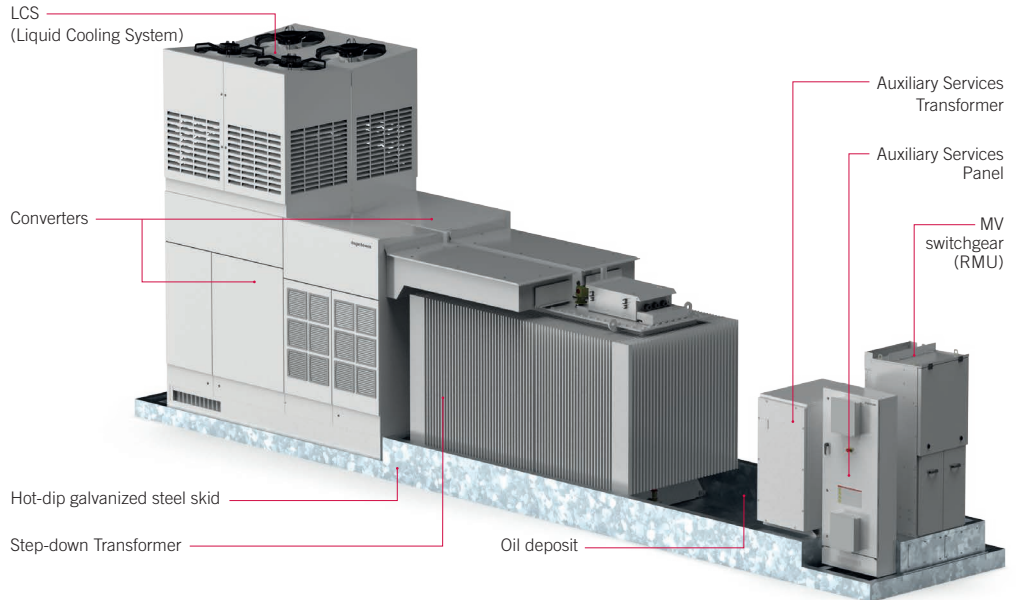
OPTIONAL ACCESSORIES

- Auxiliary services transformer (up to 60 kVA, Dyn11).
- MV Surge arresters.
- Low voltage distribution panel (IP56).
- Power plant commissioning.
- High-speed Ethernet / fibre optic communication infrastructure for Plug & Play connection to the Power Plant Controller and/or SCADA systems.
- Energy meter for auxiliary services and/or energy production.
- Insulation monitoring relay for continuous monitoring of IS systems insulation.
- Reactive power regulation.

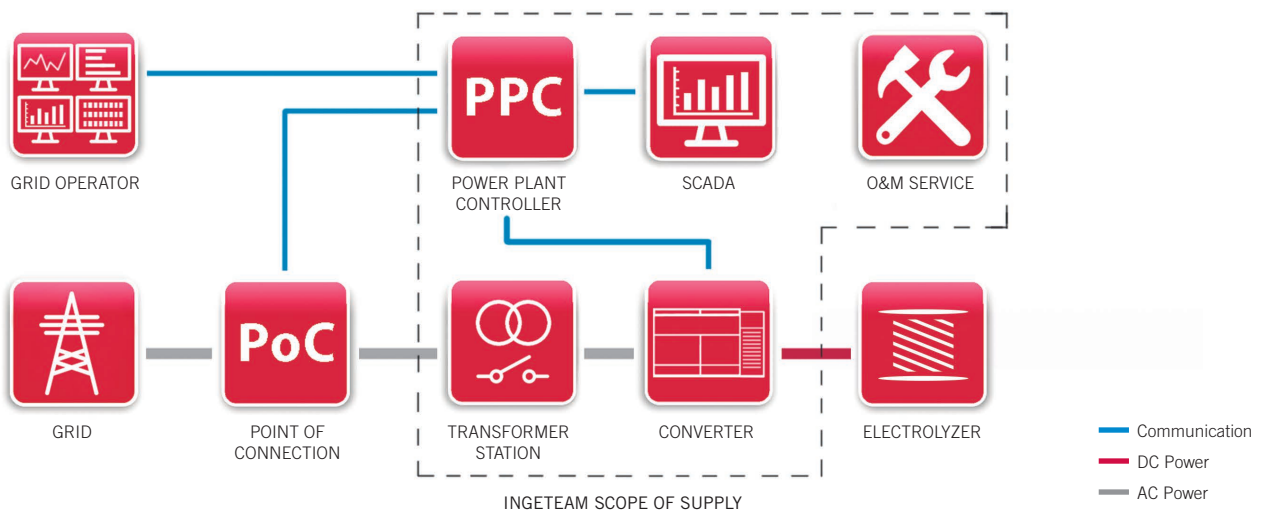
STANDARD EQUIPMENT

- Two converters.
- Liquid-filled hermetically-sealed step-down transformer up to 40.5 kV.
- 1L1A MV switchgear (2L1A optional).
- Oil-retention tank.

COMPONENTS



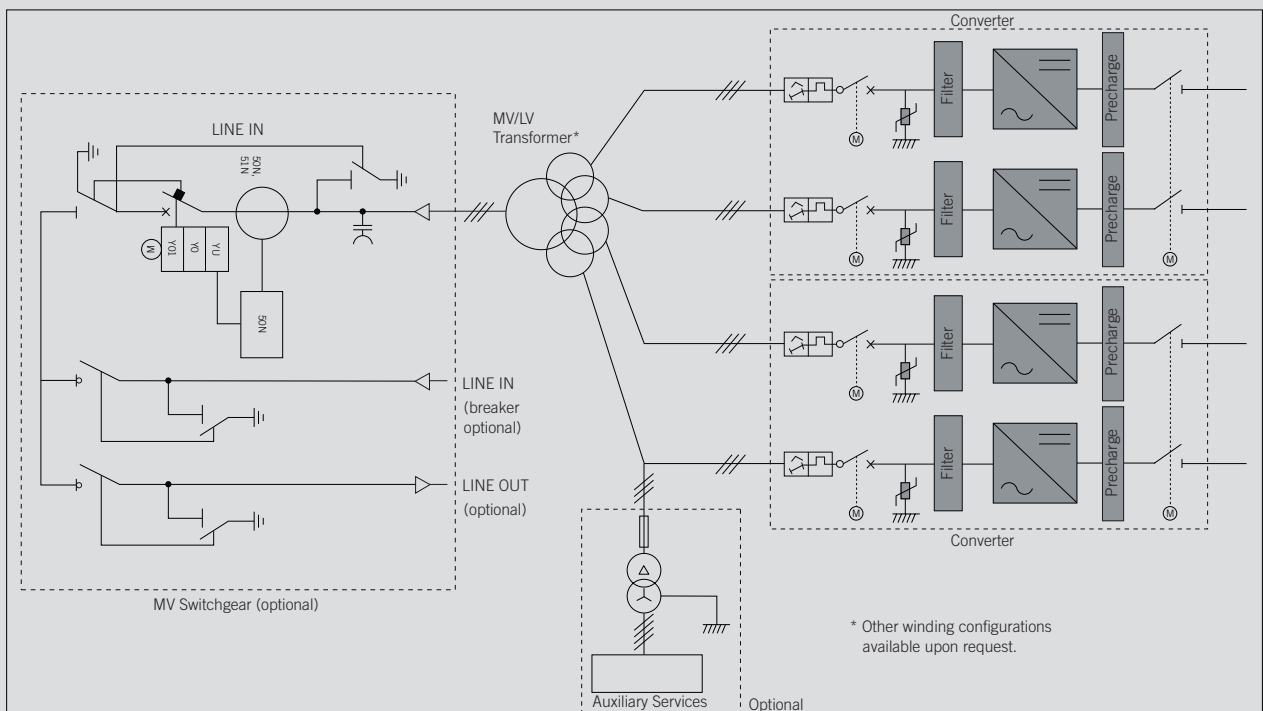
PLANT CONFIGURATION



	INGECON® H2 FSK E6000	INGECON® H2 FSK E12000
General information		
Operating temperature range	from -20 °C to +50 °C	
Relative humidity (non condensing)	0 - 100%	
Maximum altitude	3,000 masl (power derating starting at 1,000 masl)	
Converter		
DC voltage range	500 - 1,300 V	
Maximum DC voltage	1,300 V	
Rated DC current ⁽¹⁾	6,000 A	12,000 A
Maximum DC current	7,930 A	15,860 A
Number of power stacks	2	4
Number of outputs ⁽²⁾	2	4
Step-down Transformer		
Medium voltage	From 20 kV up to 36 kV, 50-60 Hz	
Cooling system	ONAN (KNAN optional)	
Minimum PEI (Peak Efficiency Index) ⁽³⁾	99.40%	
Protection degree	IP54	
MV Switchgear (RMU)		
Medium voltage	24 kV / 36 kV / 40.5 kV	
Rated current	630 A	
Cooling system	Natural air ventilation	
Protection degree	IP54 (IP55 optional)	
Equipment		
Auxiliary services panel	Standard version (optional monitoring system)	
MV/LV transformer	Oil-immersed hermetically sealed transformer	
MV Switchgear	1L1A cells (2L1A optional)	
Mechanical information		
Structure type	Hot dip galvanized steel skid	
Overall system dimensions (L x W x H)	11,500 x 2,100 x 4,240 mm	
Dimensions for shipping, without the LCS (L x W x H)	11,500 x 2,100 x 2,490 mm	
Weight	< 28 T ⁽⁴⁾	
Standards	IEC 62271-212, IEC 62271-200, IEC 60076, IEC 61439-1	

Notes: ⁽¹⁾ This rated current has been calculated for Vdcmín=720 V; Vdcmáx=900 V; ambient temperature 35 °C ⁽²⁾ these outputs could be connected to the same electrolyser or to different electrolysers ⁽³⁾ For European installations, ECO design according to the EU 548/2014 and EU 2019/1783 standards ⁽⁴⁾ The total weight will depend on the total system power and the accessories included.

Electric diagram





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