

## MEDIUM VOLTAGE POWER STATION CUSTOMIZED UP TO 7.86 MVA, WITH ALL THE COMPONENTS SUPPLIED ON TOP OF THE SAME SKID PLATFORM

This medium-voltage solution integrates all the devices required for a multi-megawatt battery energy storage system.

### Maximize your investment with a minimal effort

Ingeteam's FSK power station is a compact, customizable and flexible solution that can be configured to suit each customer's requirements. It is supplied together with up to two storage inverters. 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 now more versatile, as it presents the step-up transformer integrated into a steel platform together with the LV and MV components, including the storage inverters. Moreover, it features one of the market's greatest power densities.

### Plug & Play technology

This MV solution integrates power conversion equipment (up to 7.86 MVA), liquid-filled hermetically sealed transformer up to 38 kV and provision for low voltage equipment. The MV Skid is delivered pre-assembled for a fast onsite connection with up to two storage inverters from Ingeteam's INGECON® SUN STORAGE 3Power U HV C Series battery inverter family. The full skid is lifted as a single block and it is transported within an open top 40 ft container.

### Complete accessibility

Thanks to the lack of housing, the inverters, the switchgear and the transformer can have immediate access. Furthermore, the design of the 3Power U HV C Series storage inverters has been conceived to facilitate maintenance and repair works.

### Maximum protection

Ingeteam's 3Power U HV C Series storage inverters 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, they feature the main electrical protections and they deploy grid support functionalities, such as low voltage ride-through capability, reactive power deliverance and active power injection control.

# Medium voltage power station customized up to 7.86 MVA, with all the components supplied on top of the same skid platform

### Construction

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

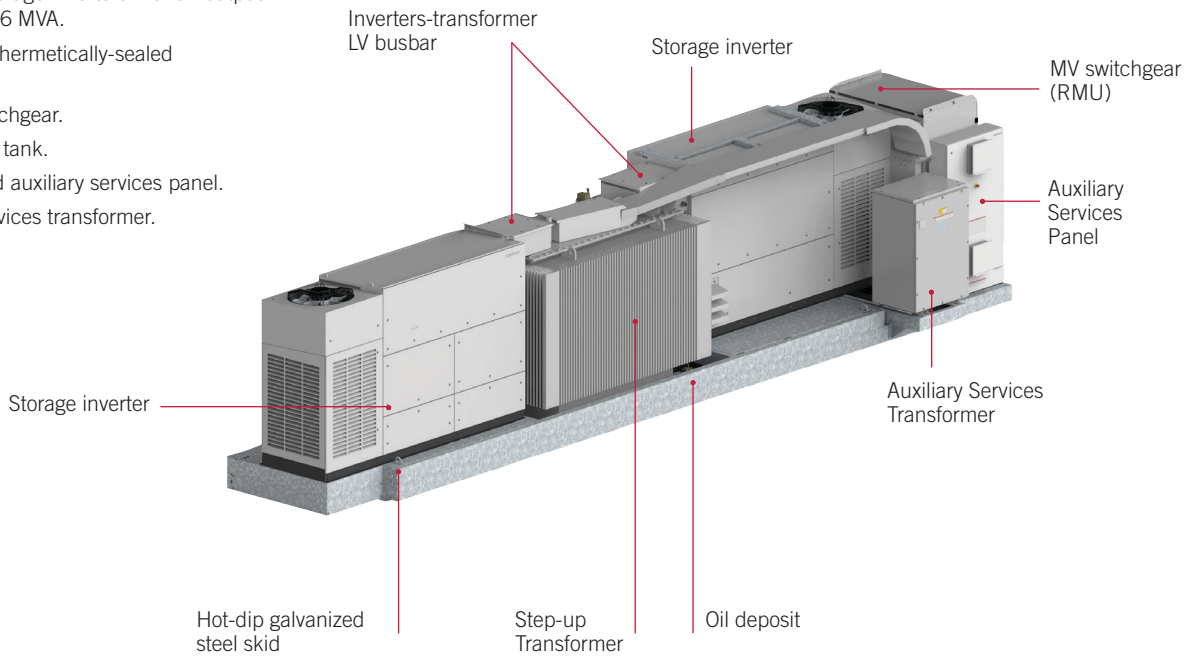
### Optional accessories

- Auxiliary services transformer (up to 60 kVA).
- MV Surge arresters.
- High-speed Ethernet / fibre optic communication switch.
- Energy meter for auxiliary services and/or energy production.

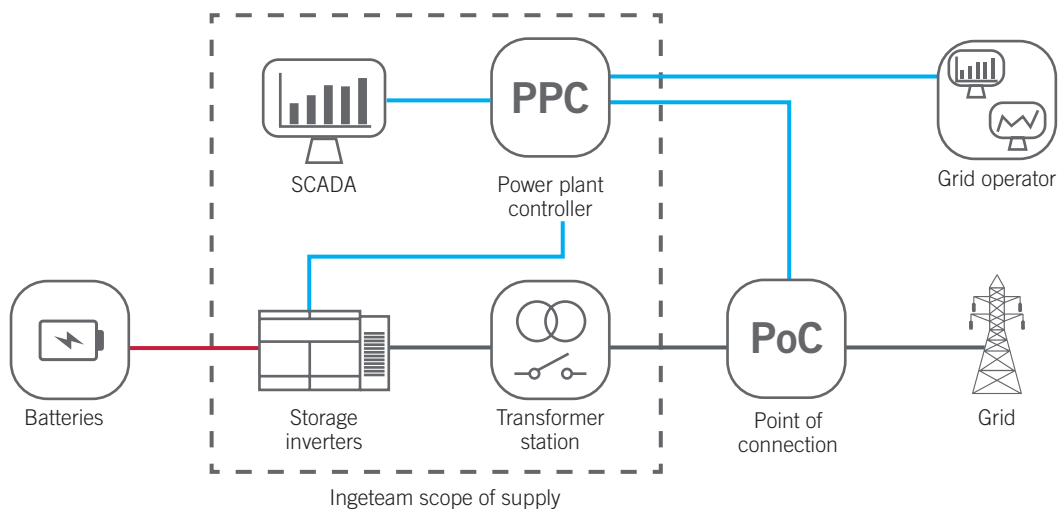
### Standard equipment

- Up to two storage inverters with an output power of 7.86 MVA.
- Liquid-filled hermetically-sealed transformer.
- OL1C1L switchgear.
- Oil-retention tank.
- Self-powered auxiliary services panel.
- Auxiliary services transformer.

### Components



### Plant configuration



Specifications included in this datasheet could change without notice. Please contact Ingeteam's sales department in case of any queries.

INGECON SUN STORAGE\_FSK-U-HV\_CSeries\_EN

## FSK U HV 3930

## FSK U HV 7860

## GENERAL INFORMATION

	1	2
Number of inverters	1	2
Discharge power @1,500 Vdc (86 °F / 122 °F)	3,928 kVA / 3,171 kVA	7,856 kVA / 6,342 kVA
Discharge current @1,500 Vdc (86 °F / 122 °F)	2,700 A / 2,180 A	
Charge power @1,500 Vdc (86 °F / 122 °F) <sup>(1)</sup>	3,730 kVA / 3,013 kVA	7,460 kVA / 6,026 kVA
Charge current @1,500 Vdc (86 °F / 122 °F)	2,564 A / 2,071 A	
Operating temperature range	from -4 °F to +140 °F	
Relative humidity (non condensing)	0 - 100%	
Maximum altitude	9843 ft (power derating starting at 3280 ft)	

## STEP-UP TRANSFORMER

Medium voltage	34.5 kV
Cooling system	KNAN
Vector group	Dy11
System impedance	7-8%
Transformer no load taps	± 2.5%, ±5.0%
Efficiency at 100% load	99%

## MV SWITCHGEAR (RMU)

Type	RLC (bus riser, line incoming with disconnecting switch, transformer protection)
Medium voltage	34.5 kV
Rated current	600 A
MV connection	Elbow connector type E 5/8" interface (optional: double elbow connector)

## EQUIPMENT

Inverters	INGECON® SUN STORAGE 3 Power U HV C Series
Auxiliary services panel	Self-powered LV panel
Step-up transformer	Oil-immersed hermetically sealed transformer
MV Switchgear	0L1C1L

## MECHANICAL INFORMATION

Structure type	Hot dip galvanized steel skid	
Dimensions Full Skid (W x D x H)	374.02 x 102.36 x 103.15 inch	448.43 x 102.36 x 103.15 inch
Weight	35,274 lbs	55,115.6 lbs
Standards	IEC 62271-212, IEC 62271-200, IEC 60076, IEC 61439-1	

## EUROPE

**Ingeteam Power Technology, S.A.**  
Avda. Ciudad de la Innovación, 13  
31621 Sarriguren (Navarra) - Spain  
Tel.: +34 948 288 000  
Fax: +34 948 288 001  
e-mail: [evc.energy@ingeteam.com](mailto:evc.energy@ingeteam.com)

**Ingeteam S.r.l.**  
Via Emilia Ponente, 232  
48014 Castel Bolognese (RA) - Italy  
Tel.: +39 0546 651 490  
Fax: +39 054 665 5391  
e-mail: [emobility.italia@ingeteam.com](mailto:emobility.italia@ingeteam.com)

**Ingeteam SAS**  
140 Rue Carmin - Le Naurouze B  
31670 Labège - France  
Tel.: +33 (0)5 61 25 00 00  
Fax: +33 (0)5 61 25 00 11  
e-mail: [france@ingeteam.com](mailto:france@ingeteam.com)

**Ingeteam, a.s.**  
Technologická 371/1  
70800 Ostrava - Pustkovec  
Czech Republic  
Tel.: +420 59 747 6800  
Fax: +420 59 732 6899  
e-mail: [czech@ingeteam.com](mailto:czech@ingeteam.com)

**Ingeteam GmbH**  
Grand Bateau – Zollhof 6  
D-40221 – Düsseldorf, Germany  
Tel.: +49 (0) 211 78177950  
e-mail: [deutschland@ingeteam.com](mailto:deutschland@ingeteam.com)

**Ingeteam Poland Spzoo**  
Ul. Koszykowa 60/62 m 39  
00-673, Warsaw, Poland  
Tel.: (+48) 22 821 99 30  
e-mail: [polska@ingeteam.com](mailto:polska@ingeteam.com)

## Ingeteam LTD.

Unit 10 Gordano 19, Garonor Way, Portbury  
Bristol, BS20 TXE - United Kingdom  
Tel.: +44 (0) 331 630 0305

## NORTH AMERICA

**Ingeteam Inc.**  
3550 W. Canal St.  
Milwaukee, WI 53208 - USA  
Tel.: +1 (414) 934 4100 / +1 (855) 821 7190  
Fax: +1 (414) 342 0736  
e-mail: [usa@ingeteam.com](mailto:usa@ingeteam.com)

**Ingeteam Power Technology México S de RL de CV**  
Av. Ejército Nacional Mexicano 351,  
Chapultepec Morales, Granada,  
Miguel Hidalgo,  
CP: 11520  
Ciudad de México, CDMX  
Tel.: (+52) 55 6586 9930  
e-mail: [proveedores.iptm@ingeteam.com](mailto:proveedores.iptm@ingeteam.com)

## SOUTH AMERICA

**Ingeteam Ltda.**  
Rua Estácio de Sá, 560  
Santa Genebra  
Campinas - SP  
CEP: 13080-010; São Paulo - Brazil  
Tel.: (+55) 19 30 37 37 73  
e-mail: [brazil@ingeteam.com](mailto:brazil@ingeteam.com)

**Ingeteam Chile SpA**  
Balmoral n.º 309, Piso 10º, Oficina 1008,  
7561282 Las Condes  
Santiago, Chile  
Tel.: (+56) 229 253 825  
e-mail: [chile@ingeteam.com](mailto:chile@ingeteam.com)

## ASIA

**Ingeteam Power Technology Shanghai, Co. Ltd.**  
Room 2606-F, No.360 South Pudong Road  
China (Shanghai) pilot free trade zone  
C.P 200120  
Tel.: +86 139 1622 4886  
e-mail: [liu.yimin@ingeteam.com](mailto:liu.yimin@ingeteam.com)

**Ingeteam India Pvt. Ltd.**  
Survey No. 111/1-111/3 & 111/5-111/7,  
Village No.155, Mambakkam Village,  
Chennai - Bangalore Main Road,  
Sriperumbudur Taluk,  
Kancheepuram District - 602106,  
Tamilnadu, India

**Ingeteam Power Technology S.A. UAE Branch**  
Al Bateen tower c6 Bainunah 1st floor  
Street 34  
Abu Dhabi - UAE  
Tel.: +971 2 207 6666

**Ingeteam Power Technology S.A.**  
Thailand representative office  
100/67 Vongvanij B Building, 22nd floor,  
Rama IX Road., HuayKwang,  
10320 Bangkok  
Te.: +66 22461798  
e-mail: [Thailand.pga@ingeteam.com](mailto:Thailand.pga@ingeteam.com)

## AUSTRALIA

**Ingeteam Australia Pty Ltd.**  
Iaccelerate Centre, Building 239  
Innovation Campus, Squires Way  
North Wollongong, NSW 2500 - Australia  
Tel.: +61 429 111 190  
e-mail: [australia@ingeteam.com](mailto:australia@ingeteam.com)

# Ingeteam

[www.ingeteam.com](http://www.ingeteam.com)