zepp.generator



Containerized generator set for off-grid, cost-effective, zero-emission power.

zepp.solutions provides an integrated stationary power solution based on its leading X150 fuel cell system technology as a true alternative to conventional diesel power systems.

EV charging infrastructure

Combined heat & power

Backup power

Construction sector

Datacenter UPS

High power and energy capacity

DC or AC high power output up to 600 kW continuous and 1 MW peak.

Hydrogen supply connection direct from hydrogen storage container or tube trailer for multi-MWh energy capacity.

Industry leading fuel efficiency

Generator set based on zepp's proven X150 fuel cell system delivering best in class operational efficiency, enabling a cost per kWh comparable to current diesel generator sets

Robust, reliable and serviceable

Engineered for continuous long-term performance and easy upkeep. Physically and functionally strong. Easy to inspect, repair and maintain.

Robust European supply chain.

Black-start capability and rapid load response

Fully autonomous power system can start and operate independently without external power sources, making it ideal for remote or emergency applications.

Integrated lithium-ion battery system for rapid load response and modulation.

Safe

Holistic concept covering electrical safety, explosion protection, fire detection and alarming.

Specifications. [1]

	G240	G500	G750	G1000
Rated continuous power	150 kW	300 kW	450 kW	600 kW
Rated peak power	240 kW	500 kW	750 kW	1000 kW
Integrated battery capacity (custom)	80 kWh	150 kWh	250 kWh	300 kWh
Output voltage	AC 3-phase 400 V, CCS2 fast charger or alternative			
Hydrogen supply pressure	10 - 380 bara			
System efficiency [2]	52 - 62.2%			
Fuel consumption at net rated power [2]	8.65 kg/h	17.30 kg/h	25.95 kg/h	34.60 kg/h
Fuel consumption at 50% net rated power [2]	3.81 kg/h	7.62 kg/h	11.43 kg/h	15.24 kg/h
Lifetime	20 000 hours			
Dimensions	10 ft ISO container: 2.99 x 2.44 x 2.59 m (L x W x H)		20 ft ISO container: 6.06 x 2.44 x 2.59 m (L x W x H)	
Weight	5 250 kg	7 350 kg	12 100 kg	15 000 kg
Emitted noise	< 68 dB			
Ambient temperature	-30 to 50 °C			
Maximum altitude	2000 m			
Safety and certifications	CE, following EU Directives (Machine Directive 2006/42/EC, Low Voltage Directive 2014/35/EU, EMC Directive 2014/30/EU, Pressure Equipment Directive 2014/68/EU, ATEX Directive 2014/34/EU and EU Battery Regulation 2023/1542)			
Remote monitoring	4G connectivity			
External communication	Touch HMI, ethernet			
Transportation	Forklift pockets, twistlocks corner castings at top and bottom			

1. Specifications can be subject to change without notice.
2. Performance at beginning of life, 20 °C ambient and sea level, with ±3% tolerance

An operational setup of a hydrogen generator set consists of a hydrogen supply and the generator set. All hardware and software required to turn the hydrogen gas into usable electric energy is integrated in the generator set. The table below shows the usable energy content (net output) for some common storage options.

	Dimensions	Hydrogen content	Usable energy at 50% power	Usable energy at 100% power
Cylinder bundle	0.75 x 0.99 x 1.95 m	14.4 kg	283 kWh	250 kWh
Hydrogen container (MEGC)	ISO 20 ft container	484 kg	~ 9.5 MWh	~ 8.4 MWh
Tube trailer	ISO 13.6 m trailer	400 - 900 kg	~ 7.9 - 17.7 MWh	~ 6.9 - 15.6 MWh

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