

Hydrogen Fuel Cell & Eco-friendly Marine Propulsion System

Empowering Maritime Decarbonization through Innovation

VINSSEN, a leader in eco-friendly marine mobility, is driving the sustainable maritime industry today with carbon-free energy solutions, delivering real impact for a greener future.

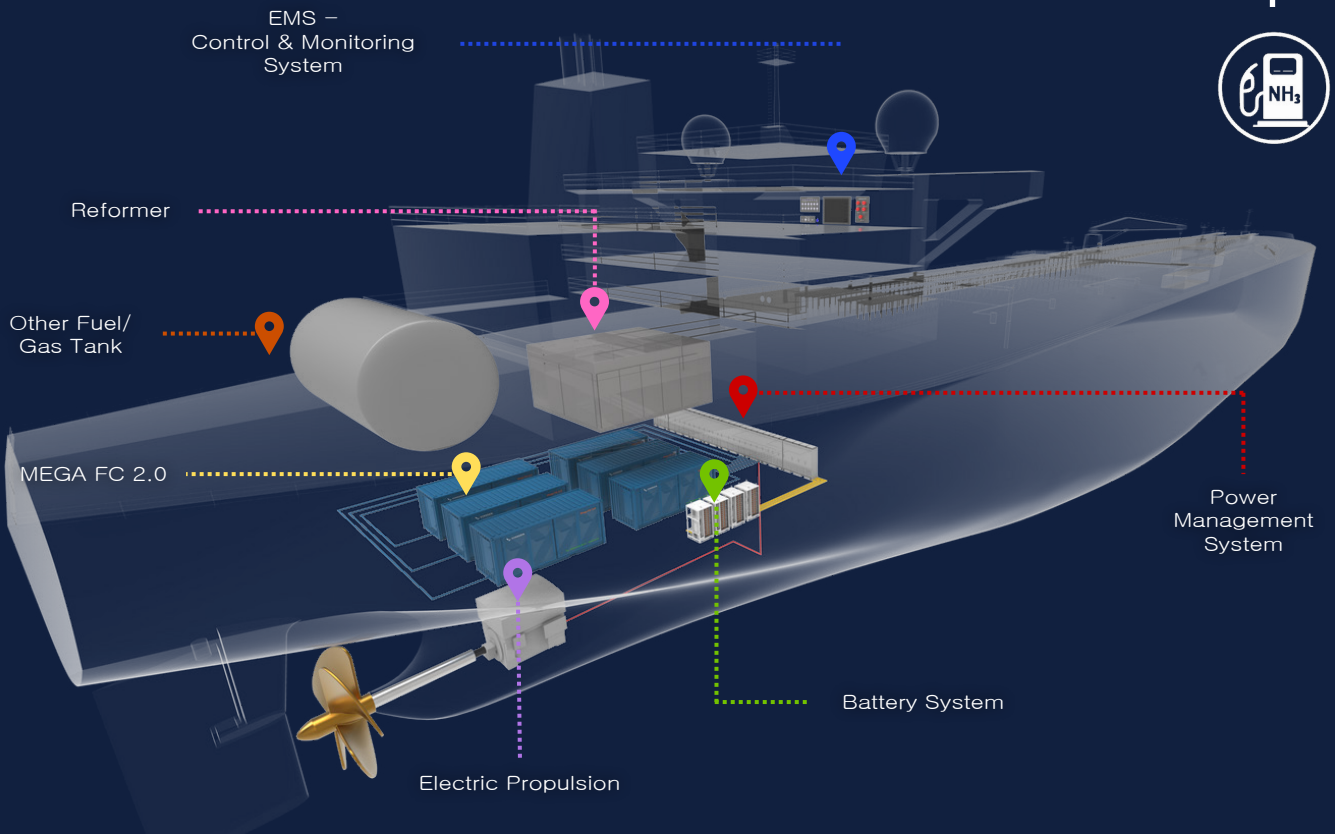
- Hydrogen Fuel Cell (PEM FC) Systems
- Marine Battery Systems
- Integrated Electric Propulsion
- Engineering & System Integration

250kW Proton Exchange Membrane Fuel Cell (250kW FCPI)

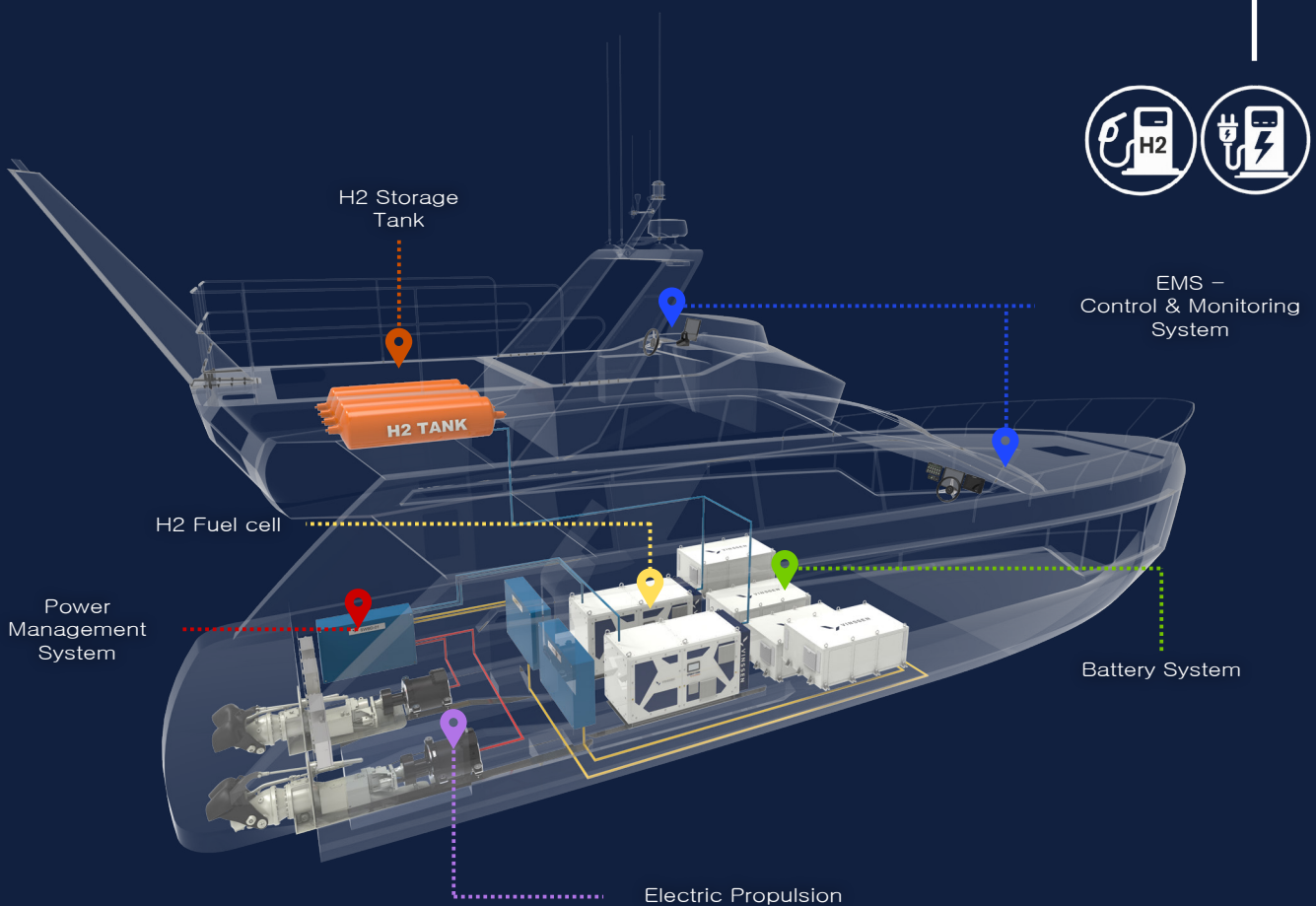



VINSSEN

Application to Commercial & Special-purpose Vessels



Application to Multi-Propulsion Vessels



Fuel Cell System for Marine Applications



MegaFC 2.0

Fuel Type	Hydrogen or Reformed gas	
Rated Power	(kW)	2,000
Size	(WxDxH, m)	6.5 x 3.0 x 2.8
Weight	(ton)	17.5



250kW FCPI

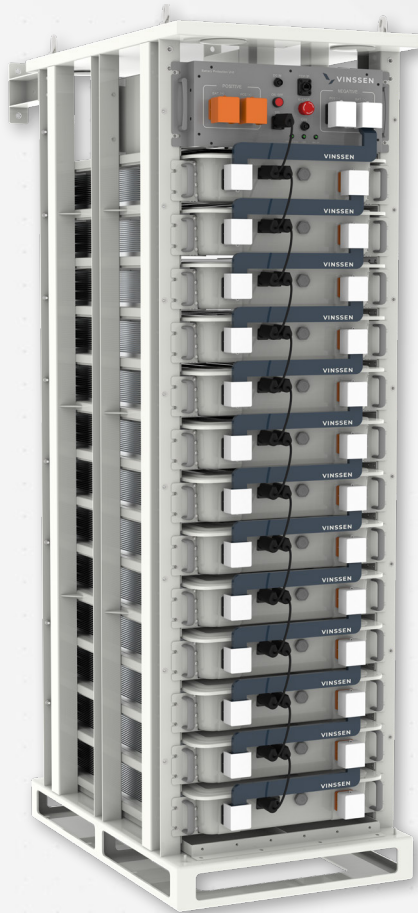
Fuel Type	Hydrogen	
Rated Power	(kW)	250
Size	(WxDxH, m)	1.4 x 1.3 x 1.9
Weight	(ton)	1.2
Classification	KR, RINA, ABS, KOMSA('26)	



100kW FCPI

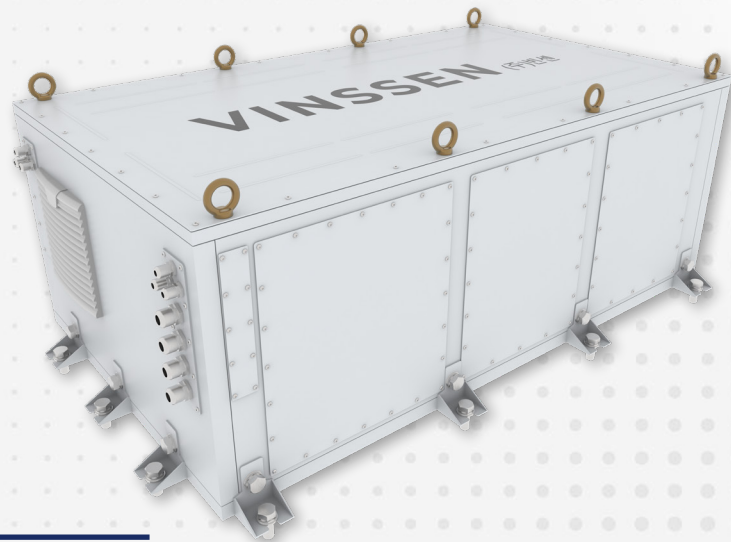
Fuel Type	Hydrogen	
Rated Power	(kW)	100
Size	(WxDxH, m)	1.9 x 0.8 x 1.0
Weight	(ton)	0.9
Classification	KR, RINA, ABS, KOMSA('26)	

 *High Voltage Battery for Marine Application*



| *NCM 106kWh*

Capacity	(kWh)	106
Voltage	(V)	600~749
C Rate		3.0
Size	(WxDxH, m)	0.56 x 0.85 x 1.90
Weight	(ton)	0.85
Cooling Type		IMMERSION (INSULATING OIL)
Classification		KR, KOMSA



| *NCA 92kWh*

Capacity	(kWh)	92
Voltage	(V)	396 - 541
C rate		1.0
Size	(WxDxH, m)	1.45 x 0.85 x 0.62
Weight	(ton)	0.75
Cooling Type		Air Cooling
Classification		KR, KOMSA

Business

01

Fuel Cell-Based Marine Power Generation Systems

Pure hydrogen-based PEM fuel cell power generation systems. PEM fuel cell power generation systems based on reformed gas from ammonia(NH₃).

02

Lithium Battery-Based Marine Propulsion Systems

Marine propulsion systems comprised of lithium-ion batteries, power conversion systems, and power management system

03

Marine PEM Fuel Cell/Lithium-ion Battery Systems

Scalable marine PEM fuel cell and lithium-ion battery systems capable of supplying large amounts of power.

04

Electric Propulsion-Based Multi-Propulsion Vessels

Multi-propulsion vessels with propulsion systems that combine various combinations of electric or hybrid electric propulsion.

Philosophy

01

Responsibility

To minimize environmental impact throughout the entire lifecycle of our vessels and lead the sustainable shipping industry.

02

Pioneer

Undeterred by the uncertainties of eco-friendly technology, we pursue innovative leadership through bold R&D investments, market leadership, and the establishment of new industry standards.

03

Harmony

To achieve a harmonious coexistence of cutting-edge technology and nature.

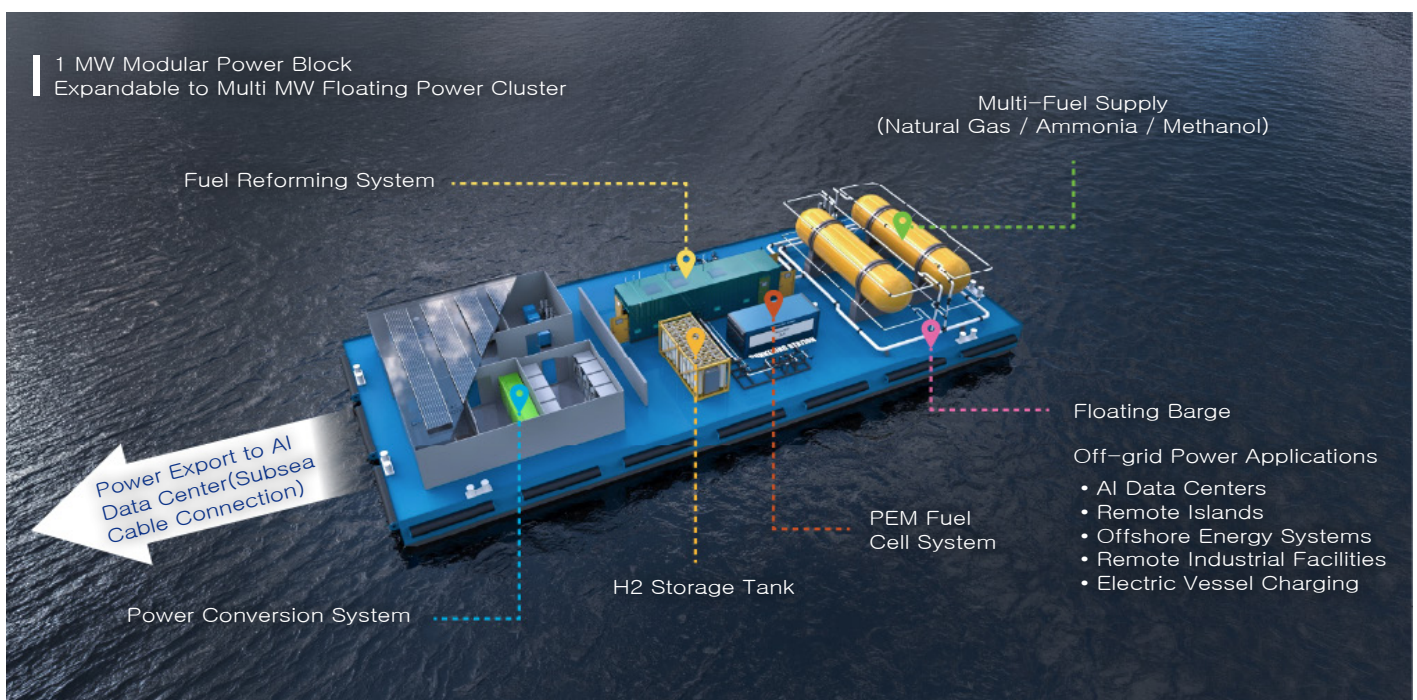
04

Future-oriented

To flexibly respond to increasingly stringent environmental regulations and energy transitions, providing sustainable assets to our customers

Barge-Mounted Hydrogen Power Platform

A Scalable Offshore Hydrogen Power Platform for Off-Grid Energy Application



World Wide Network Service



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