



July 19, 2024 Yanmar Holdings Co., Ltd.

Yanmar Commercializes Compact Hydrogen Fuel Cell Power System



The HP35FA1Z hydrogen fuel cell power generation system.

Osaka, Japan (July 19, 2024) -Yanmar Energy Systems Co., Ltd. (Yanmar ES), a subsidiary of Yanmar Holdings, has commercialized the "HP35FA1Z", a compact and multi-unit controllable hydrogen fuel cell power generation system, and will begin accepting orders in Japan from September 2, 2024.

With the increased focus on renewable energy to achieve a decarbonized society, government and municipalities in Japan are advancing efforts to promote the use of hydrogen as a fuel, including the enactment of the Hydrogen Society Promotion Bill in May 2024. In September 2023, Yanmar ES opened the <u>YANMAR CLEAN ENERGY SITE in Okayama Prefecture</u> to develop and demonstrate hydrogen-related technologies, which are expected to be lead the way in decarbonizing society.

The HP35FA1Z hydrogen fuel cell power generation system with a power output of 35kW does not emit greenhouse gases such as carbon dioxide (CO₂) or air pollutants like nitrogen oxides (NOx) during operation, ensuring a clean power supply. The system's compact design includes all necessary operating equipment, simplifying installation and achieving one of the smallest footprints in its power output class. It supports the integrated control of up to 16 units, allowing for easy adjustment of operating units and output control based on power demand and available hydrogen supply, as well as straightforward expansion to meet decarbonization goals.

Product Overview

Product Name: Hydrogen Fuel Cell Power Generation System HP35FA1Z

Order Start Date: September 2, 2024 (Japan)

Туре	HP35FA1Z
Power Generation Efficiency	51.2%
Power Output	35kW, during grid connection
	35kVA, during standalone operation
Type of Fuel Cell	Proton Exchange Membrane Fuel Cell (PEFC)
Fuel	Hydrogen, purity ≥99.97%
Control Units	Up to 16 units, During Grid-Connected Operation
Size	Width 2,340mm x Depth 900mm x Height 2,290mm
Weight	1,650kg

Main features

- 1. Zero emissions of greenhouse gases and air pollutants during power generation.
- 2. Simplified on-site installation due to the inclusion of related equipment such as grid-interconnected power conversion devices.
- 3. Compact design achieving one of the smallest installation footprints in its power output class.
- 4. Capable of integrated control of up to 16 units, adjustable based on power demand and available hydrogen supply.
- 5. Autonomous power output (blackout specification) enabling power supply during outages.

About YANMAR GREEN CHALLENGE 2050:

https://www.yanmar.com/global/about/ygc/

About Yanmar

With beginnings in Osaka, Japan, in 1912, Yanmar was the first ever to succeed in making a compact diesel engine of a practical size in 1933. A pioneer in diesel engine technology, Yanmar is a global innovator in a wide range of industrial equipment, from small and large engines, agricultural machinery and facilities, construction equipment, energy systems, marine, to machine tools, and components — Yanmar's global business operations span seven domains. On land, at sea, and in the city, Yanmar provides advanced solutions to the challenges customers face, towards realizing A Sustainable Future. For more details, please visit the official website of Yanmar Holdings Co., Ltd.

https://www.yanmar.com/global/about/

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