HONDA

News Release

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Honda Reveals Specification for its Next-generation Fuel Cell Module

– **Compared to the current model, cost reduced by half, durability more than doubled and volumetric power density increased more than three times**

TOKYO, Japan, February 19, 2025 – Honda Motor Co., Ltd. today made its first global release of specifications for Honda Next Generation Fuel Cell Module and Honda Fuel Cell Power Generator at H2 & FC EXPO – the 23rd Int'l Hydrogen & Fuel Cell Expo – which started today at Tokyo Big Sight, Japan.
Mass production of the Honda Next Generation Fuel Cell Module is scheduled to begin in 2027 (fiscal year ending March 31, 2028), with mass production of the Honda Fuel Cell Power Generator scheduled to begin in 2026.

■ Honda Next Generation Fuel Cell Module

The Honda Next Generation Fuel Cell Module unveiled today is being independently developed by Honda as a successor to the current model Honda jointly developed with General Motors (GM).

In addition to achieving a rated output of 150 kW, the Honda Next Generation Fuel Cell Module will feature **half of the production cost** and **more than double the durability** compared to the current model. Moreover, the module was **downsized by increasing the volumetric power density**[*1] **by more than three times**, **which increased the flexibility of installation layouts.**

By further expanding domains for application of the system and sales regions of this next-generation fuel cell module, Honda is striving to make a greater contribution to the realization of a sustainable, energy-oriented society.

Mockup model of Honda Next Generation Fuel Cell Module

*1 Volumetric Power Density: The amount of electrical energy that can be output per unit volume.

<Advancements compared to previous FC modules>

- CLARITY FUEL CELL equipped model:
  First-generation Honda FC module introduced in 2016; production discontinued in 2019.
- CR-V equipped model:
  Current FC module codeveloped with GM and installed in CR-V e:FCEV in 2024.

<Honda Next Generation Fuel Cell Module Specifications>

Maximum Output (Net)	150 kW
Output Voltage	450 - 850 V
Maximum Efficiency (Net)	59.8 %
FC Refrigerant	Honda Genuine FC refrigerant
Hydrogen Gas Composition	Equivalent to ISO 14687
Low Voltage Power Supply	DC24V
Module Dimensions	DC24V W730 x D580 x H700 mm
Volume ・ Volumetric Density	300 L ・ 0.50 kW/L
Weight ・ Weight Density	250 kg ・ 0.60 kW/kg
Operating Temperature	-30℃ - +60℃
Storage Temperature	-40℃ - +60℃
Max Altitude	3,500 m
Ingress Protection Rating	Equivalent to IP67
CAN Communication Standard	ISO11898
Communication Protocol	SAE J1939 / Honda Hi-Speed CAN (selectable)
Compatible Communication Speeds	500kbps

*Note: These are target values for development and may change in the future

■ Honda Fuel Cell Power Generator

The Honda Fuel Cell Power Generator, scheduled for mass production in 2026, is a stationary power storage system capable of supplying hydrogen-derived, clean electricity to large facilities such as factories and offices. It utilizes the fuel cell also being used for the Honda CR-V e:FCEV fuel cell vehicle.

The compact size of the Honda Fuel Cell Power Generator realized through the optimization of the design of its cooling system and internal layout enables flexible fit to the installation environments of each customer. Moreover, to promptly provide highly reliable backup power, the Honda Fuel Cell Power Generator is being developed to feature high responsiveness that enables it to begin supplying power within 10 seconds of startup.

In addition to supplying power that accommodates the diverse power needs of customers through this product, Honda will contribute to the decarbonization initiatives of customers by offering comprehensive support ranging from product installation to after-sales service.

Mockup model of the Honda Fuel Cell Power Generator

<Honda Fuel Cell Power Generator System Specifications>

Usage	Emergency Backup Power Generator
Output	Up to four 250kW units (1,000kW total) can be connected in series It can be configured in parallel based on 4 units to exceed a total capacity of 1,000 kW
Rated Voltage	AC 200-480V, 3-phase, 4-wire system
Compliant Standards	ANSI/CSA FC1 / IEC 62282-3-100
Startup Time	Within 10sec
Installation Environment	Temperature: -25°C – +45°C Altitude: MAX 2,000m / Performance guaranteed 1,000m
Noise Level	76dBA (@7m) or less
Exhaust	Zero Emission (No CO_2, NOx)

*Note: Information based on standard products working under standby operating conditions. Specifications are subject to change without notice.

About Honda hydrogen business

Honda was one of the first companies to focus on the potential of hydrogen toward the realization of a carbon-neutral society and has been conducting research and development of hydrogen technologies and FCEVs for more than 30 years.

Working toward the realization of carbon neutrality for all products and corporate activities Honda is involved in by 2050, Honda has identified four core domains for its fuel cell system application – fuel cell electric vehicles (FCEVs), commercial vehicles, stationary power generator and construction machinery – and has been working to further expand opportunities for its hydrogen business to grow it as one of the new core businesses of Honda.