

Enhancement of Product Lineup of Lithium-Ion Batteries for PHEVs and EVs

Exhibited at the 42nd Tokyo Motor Show 2011

Hitachi Vehicle Energy, Ltd. (hereinafter Hitachi Vehicle Energy) has developed high-capacity lithium-ion batteries with 30 Ah and has enhanced the product lineup of its lithium-ion batteries for plug-in hybrid electric vehicles and electric vehicles (PHEVs and EVs), in response to growing demand for environmentally friendly vehicles.

There is a growing demand for safe, high-capacity batteries for PHEVs and EVs. Hitachi Vehicle Energy announced a lithium-ion battery for PHEVs with high-capacity (25Ah-120Wh/kg) and high-power (2,400W/kg) in January 2010. The newly developed lithium-ion battery has higher capacity 30Ah and higher specific energy 130Wh/kg. That is, the battery has 20% more capacity compared to the former product therefore it can increase the distance of EV cruising.

The specifications of the newly developed batteries are as follows:

Items	Specifications
Dimensions (mm)	W 155 × D 25 × H 105
Weight (kg)	0.82
Average Voltage (V)	3.6
Nominal Capacity (Ah)	30
Specific Power (W/kg)	2100
Specific Energy (Wh/kg)	130



Since its foundation in 2004, Hitachi Vehicle Energy has been the global leader in beginning volume production of safe, high-performance, and long life lithium-ion batteries for hybrid electrical vehicles (HEVs). It has supplied a total of 2 million cells*¹ to the market, mainly for hybrid buses and trucks, passenger vehicles as well as for hybrid trains and other applications. The lithium-ion batteries being released today will serve to further expand the range of applications, not only for PHEVs and EVs, but also in the Social Innovation Business, which is a core area of business for the Hitachi Group; for example, in railway, construction machines energy storage systems, and other industrial fields. To achieve this goal, Hitachi Vehicle Energy will provide the battery system solutions to the customers.

The newly developed lithium-ion battery with 30 Ah was exhibited at the 42nd Tokyo Motor Show 2011, which was held at Tokyo Big Sight between December 3 and 11, 2011.

These development activities used some of the results of research contracted by the New Energy and Industrial Technology Development Organization (NEDO). Hitachi has been participating in a national project related to large-scale lithium-ion batteries being promoted by NEDO and the Japanese Ministry of Economy, Trade and Industry since 1992, and will continue its efforts to incorporate the results of such contracted research into practical applications as quickly as possible.

*1. As of November 2011.

■Outline of Hitachi Vehicle Energy, Ltd.

Company Name: Hitachi Vehicle Energy, Ltd.

Representative: Masafumi Yuhara, President

Common Stock: 7.5 billion yen (Hitachi, Ltd. 65.3%; Shin-Kobe Electric Machinery Co., Ltd. 24.7%; Hitachi Maxell Energy, Ltd. 10.0%)

Established: June 25, 2004

Principal Office: 1410 Inada, Hitachinaka-shi, Ibaraki, Japan

Business: Marketing, development and manufacture of lithium-ion batteries for hybrid electric vehicles, etc.

* For more details about the product, please contact us through our Web site.