News Release

Sep 3, 2014

GS Yuasa Corporation

GS Yuasa's Lithium-ion Battery System Installed in the New-Generation Electric Powered Carrier NeGEM, the World's First Carrier With Storage Batteries as the Main Power Source

A lithium-ion battery system manufactured and sold by GS Yuasa Corporation (Tokyo Stock Exchange: 6674; "GS Yuasa") has been adopted by Nippon Sharyo Ltd. (Tokyo Stock Exchange: 7102; "Nippon Sharyo") for its new-generation electric powered carrier NeGEM that was released in July 2014 as the first of its type in the world.

Nippon Sharyo recently developed NeGEM as an environmentally-friendly and highly-economic carrier. Up until now, it has been common for large diesel engines to be used as the power source for heavy load vehicles that carry heavy objects (carriers) at locations such as steelworks or shipyards. In contrast, GS Yuasa's lithium-ion battery module LIM50E-8 has been installed as the power source for NeGEM. This lithium-ion battery system has been jointly developed by GS Yuasa and Nippon Sharyo through many running tests.

GS Yuasa's lithium-ion batteries have been widely adopted for special uses such as satellites, railway cars and material handling systems. GS Yuasa will work towards developing automotive batteries in response to growing demand for electric vehicles including hybrid cars and plug-in hybrid cars while working to increase applications in industrial fields in order to contribute to the reduction of our society's burden on the environment.

[Characteristics of NeGEM]

・During EV operations there are no exhaust gas emissions or engine noise, which provides a comfortable working environment.

・Plug-in charging is supported from AC 200V power sources that are commonly used in locations such as factories.

・In the case of long cruising ranges, operation is possible while recharging with a small engine driven generator.

[LIM50E-8 specifications]

Capacity (Ah)	47. 5	Weight (kg)	17. 5
Nominal voltage (V)	29. 6	External dimensions (mm)	W:215 x D:414 x H:135
Maximum charging current (A)	125	Operating temperature limit (℃)	Discharging: －20 to 40 Charging: －10 to 40
Maximum discharge current (A)	300	Operating humidity range (%)	0 to 90

[Specifications for storage batteries installed in NeGEM]

Structure	LIM50E-8, 20 units connected in series / 2 units connected in parallel
Amount of electricity (kWh)	57
Nominal voltage (V)	592

[Images]

1. Industrial-use lithium-ion battery module LIM50E-8

2. NeGEM developed by Nippon Sharyo

GS Yuasa International Ltd.

GS Yuasa is one of the world's leading battery manufacturers for automotive, telecom, and industrial applications and has produced commercial lead acid batteries for more than one hundred years. GS Yuasa manufactures a variety of specialty battery technologies, among them Lithium-ion, Nickel-Metal Hydride, Thermal batteries and Silver Zinc.

GS Yuasa Lithium Power

GS Yuasa Lithium Power, Inc. is the United States subsidiary of GS Yuasa focused on large format lithium ion battery system manufacturing for US customers. Primary products are lithium-ion battery systems for aerospace, defense, commercial, and industrial applications.

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