SANYO

Battery Systems
for Hybrid Electric Vehicles

Higher performance and smaller space

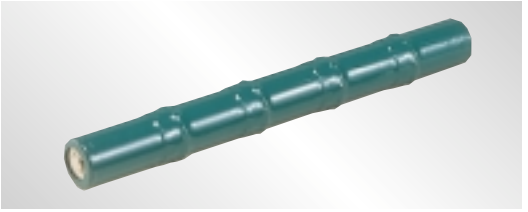
Nickel-Metal Hydride Battery

Battery System
240HR-DP

Nominal voltage : 288V
Weight : 66kg
Dimensions : W820 × D500 × H110mm

Battery Module

5HR-DP
Nominal voltage : 6.0V
Nominal capacity : 6.5Ah
Weight : 0.9kg (including tube)
Dimensions : Diameter 36.3mm (including tube) Length 300mm



Battery Holder

120HR-DP
Nominal voltage : 144V
Weight : 27kg (including batteries)
Dimensions : W410 × D504 × H105mm

Battery ECU

Weight : 0.9kg
Dimensions : W210 × D45 × H110mm
Communication Protocol : CAN (example)

Batteries for Hybrid Electric Vehicles

Nickel-Metal Hydride Battery

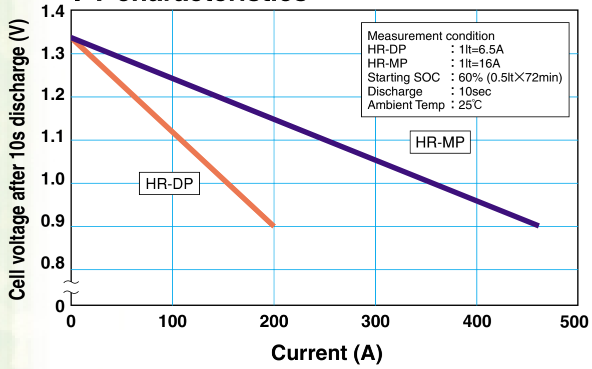
HR-DP

HR-MP

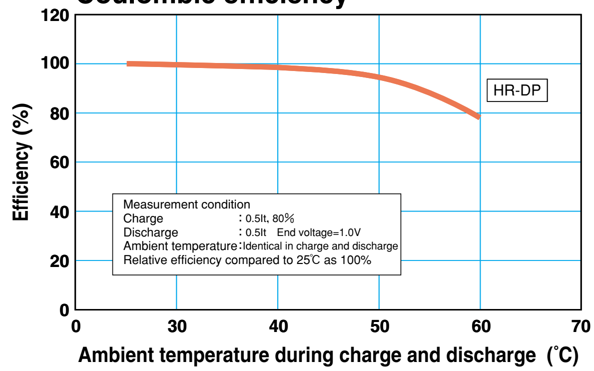
Battery Specifications

	HR-DP	HR-MP
Maximum Current	200A	470A
Power Density	1000W/kg	880W/kg
Nominal Voltage	1.2V	1.2V
Nominal Capacity	6.5Ah	16Ah
Weight	180g	480g
Dimension (diameter)	32.3mm	42.1mm
Dimension (length)	58.5mm	90.0mm
Energy density (volume)	163Wh/l	153Wh/l
Energy density (weight)	43.3Wh/kg	40.0Wh/kg

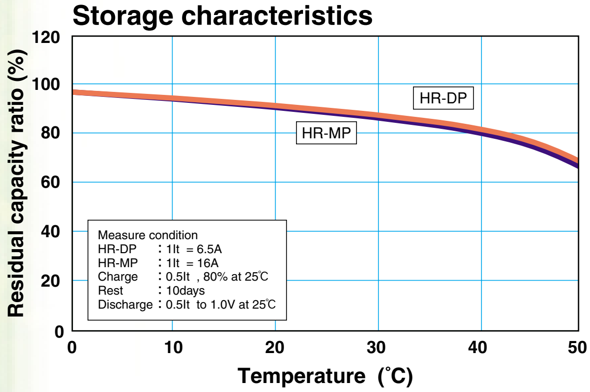
I-V characteristics



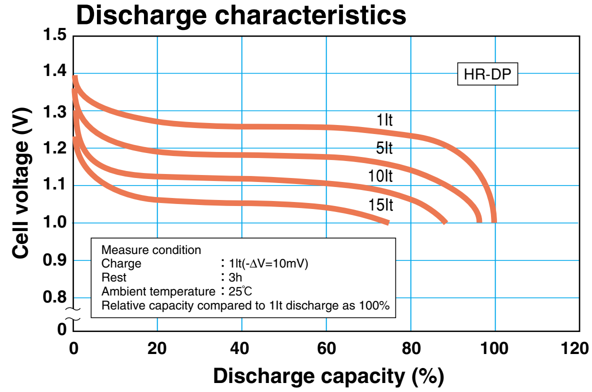
Coulombic efficiency



Storage characteristics



Discharge characteristics



Features

High power

Lower resistance has been achieved by development of new current collector and improvement of electrode structure. It realized 200A (HR-DP) and 470A (HR-MP) discharge for 10sec.

Excellent storage characteristics

Self discharge has been suppressed by optimization of electrolyte and other technologies. Excellent storage characteristics has been achieved even under high temperature and during long storage period.

Excellent high temperature charge efficiency

Developed positive electrode composition leads to higher charge efficiency even in 60℃ ambient.

Discharge characteristics

High-rate discharge has become possible as a result of lower resistance by new current collector and improvement of electrode structure.

Note:The data are based on single cell.

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