NICHICON Develops JUH Series of Heat-Resistant Electric Double-Layer Capacitors Rated to 85°C

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NICHICON CORPORATION has developed a new series of lead-type electric double-layer capacitors, the JUH series, which is rated to higher temperatures than currently available products.

Overview and Development background
Demand is increasing worldwide for smart meters as IoT solutions in the utilities field that enable remote measuring of electricity and water usage. Smart meters are expected to improve productivity in measuring usage of such utilities and enhance customer service. The smart meters have also garnered attention because smart meters make the electricity consumption of various home appliances visible, thereby making it easier for households to conserve electricity.

Electric double-layer capacitors have also drawn attention for their application in backup power sources for smart meters and gas meters thanks to recent advances in performance, and their use is becoming more widespread. Electric double-layer capacitors are used in smart meters and other equipment that are fixed outside of buildings, demand for them to be highly heat-resistant and durable has increased.

Features
By employing an electrolyte solution that remains highly stable through long periods of heat exposure, the JUH series reduces degeneration caused by high-temperature environments. By employing a new material that ensures stable electrical characteristics over a long period of time in the activated carbon electrodes, NICHICON has increased durability to the highest level in the industry (1,000 hours at 85°C [2.5V]). The JUH series is ideal for applications that call for heat-resistance and high durability.
Main Specifications
Rated voltage range 2.5 V DC
Rated capacitance range 1 to 10 F
Category temperature range -40 to +85°C
Product dimensions Φ8×11.5L to Φ12.5×31.5L (mm) (five sizes)
Life 1,000 hours at 85°C
Terminal shape Lead type
Samples From April 2020
Mass production From October 2020
[Planned production volume: 300,000/month]
Production plant NICHICON (OHNO) CORPORATION,
No. 3 Factory
4085 Toyoshina, Azumino, Fukui Prefecture
(ISO 9001, IATF 16949, and ISO 14001 certified)

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