NICHICON Develops a Miniaturized Snap-In Aluminum Electrolytic Capacitor with a Long Lifespan (5,000 Hours at 105°C)

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NICHICON CORPORATION has developed a miniaturized snap-in aluminum electrolytic capacitor with a long lifespan (5,000 hours at 105°C) for the electric power supply industry, which has been advancing in terms of miniaturization and efficiency in recent years.

Overview and Development Background
Demand for miniaturization and space-saving in the server power supply/switched-mode power supply field has been strong in recent years as internal space decreases due to circuit integration. Meanwhile, the internal temperature of power supplies is trending upwards. Under these conditions, there is demand for the large aluminum electrolytic capacitors used in power supply smoothing circuits to be miniaturized and made highly reliable (long lifespan). To meet these demands, NICHICON reduced the size (maximum volume reduction of 28%) of the current LGX series (5,000 hours at 105°C) to develop the smallest product on the market that meets these specs.

Features
To achieve miniaturization, NICHICON employs a newly developed high-capacitance aluminum electrode foil as the main material for this product. It also incorporates electrolytic paper optimized for electrolyte retention to achieve a long lifespan. Employing this product in set devices can contribute to miniaturization.

Main Specifications
Rated voltage range 450 V DC
Rated capacitance range 120 to 1000 μF
Category temperature range: -25 to +105°C
Product dimensions: Φ22×25L to φ35×60L (mm) (28 sizes)
Life: 5,000 hours at 105°C
Terminal shape: Snap-in type
Samples: From September 2020
Mass production: From January 2021
[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)

Miniaturized snap-in aluminum electrolytic capacitor with a long lifespan (5,000 hours at 105°C)