



Development of KMQ Series of Screw Terminal Type Aluminum Electrolytic Capacitors Realizing up to 44mm Lower Profile and about Two Times Higher Ripple Current

Nippon Chemi-Con has developed the KMQ Series of screw terminal type aluminum electrolytic capacitors that feature a greatly reduced size and high ripple current for general purpose inverter applications.

General purpose inverters are widely used to obtain higher efficiencies in machine tools, industrial robots, and servo motors, and the market is expected to continue expanding.

Nippon Chemi-Con's KMQ Series realizes a significant size reduction as a smoothing capacitor for general purpose inverters compared to our existing KMH Series. Comparing products with a rated voltage of 400V, the KMQ Series realizes a profile that is up to 44mm lower (a volume ratio that is up to 31% smaller) than the KMH Series, which has the same capacitance. In addition, rated ripple current of up to twice the previous value has been achieved.



Technical Advantages:

For development, we used our original high capacitance aluminum electrode foil with excellent thermal stability and optimized the structure to achieve small size and high ripple current.

The KMQ Series will help our customers reduce the size of their inverter systems.

Mass Production Schedule:

Mass production of the KMQ Series has already started at Chemi-Con Fukushima Corp. (a 100% owned subsidiary of Nippon Chemi-Con) and is planned to be produced at overseas production bases (United Chemi-Con, Inc. in the United States and Chemi-Con (Wuxi) Co., Ltd. in China).

Specifications:

- Category temperature range: -25 ~ +105
- Endurance: 2000 hours at 105
- Rated voltage range: 315 ~ 450V
- Capacitance range: 330 ~ 10000 μ F
- Case size: ϕ 35 \times 55 ~ ϕ 89 \times 170Lmm
- Rated ripple current: 1.8 ~ 21.6Arms

Features:

Case Size and Ripple Current Comparison Chart for 400V Products

[Size in mm]

Capacitance[μ F]	KMQ Series 		KMH Series (Existing Products)	
820	ϕ 35 \times 90L	3.6Arms	ϕ 35 \times 120L	2.0Arms
1200	ϕ 50 \times 75L	4.9Arms	ϕ 50 \times 100L	2.7Arms
3300	ϕ 63.5 \times 105L	10.8Arm	ϕ 63.5 \times 120L	5.5Arms
4700	ϕ 76.2 \times 105L	14.3Arms	ϕ 76.2 \times 130L	7.6Arms
5600	ϕ 89 \times 96L	13.9Arms	ϕ 89 \times 140L	9.4Arms