

1606KL-04W-B69-B03 NMB 12V 0.15A 40mm DC Axial Fan

SKU: 1606KL-04W-B69-B03

Price: \$11.99

Categories: Fans

Tags: NMB

Product Link:

<https://www.electspares.com/product/1606kl-04w-b69-b03-nmb-12v-0-15a-40mm-dc-axial-fan/>

Product Description

The NMB 1606KL-04W-B69-B03 is a high-performance 12 V industrial axial fan with dimensions of 40 x 40 x 15 mm, purpose-built to deliver elite-level thermal cooling in high-resistance airflow paths. This unit features a heavy-duty brushless DC motor capable of sustaining a 1.8 W power input to drive its specialized 7-blade impeller at a consistent 9500 RPM. Engineered specifically for concentrated air displacement in space-constrained enclosures, it utilizes a high-velocity profile to overcome significant backpressure. The mechanical design relies on a precision-shielded dual ball bearing system and a fiberglass-reinforced PBT housing to ensure 50,000 hours of continuous operation at a 25 °C ambient temperature. Featuring a robust 3-wire interface with a dedicated Tachometer (FG) output for real-time speed monitoring and a specialized "B03" signal circuit, this fan is a critical component for medical ventilators, rail vehicle cooling, and industrial server modules where long-term reliability and precise heat dissipation are mandatory.

1606KL-04W-B69-B03 Fan Parameters

Manufacturer: NMB-MAT (MinebeaMitsumi)

Model Number: 1606KL-04W-B69-B03

Series: 1606KL Series

Industry Size Code: 4015

Type: DC Axial Fan

Bearing Type: Dual Ball Bearing

Nominal Voltage: 12 VDC

Voltage Range: 10.2 - 13.8 VDC

Starting Voltage: 10.2 VDC

Dimensions: 40 x 40 x 15 mm

Weight: 25 g

[Electrical Data]

Input Power: 1.8 W

Nominal Current: 0.15 A

Max. Current: 0.22 A (Peak startup current)

Nominal Speed: 9500 RPM (Tolerance $\pm 10\%$)

Motor Design: Brushless DC Motor

Signal Output: FG (Frequency Generator / Tachometer)

Signal Type: B03 (Tachometer/Square Wave)

Motor Protection: Auto Restart, Polarity Protection

Insulation Class: Class E

Insulation Resistance: >10M ohm at 500 VDC

Dielectric Strength: 700 VAC for 1 minute

Termination: 3-Lead wires (UL1007, AWG 26, Red/Black/White)

[Performance & Acoustics]

Max. Air Flow: 10.6 CFM (18.0 m³/h / 0.30 m³/min)

Max. Static Pressure: 9.93 mmH₂O (97.4 Pa / 0.39 inH₂O)

Sound Pressure Level: 38.0 dB(A) (Measured at 1 meter)

Number of Blades: 7

Direction of Rotation: Clockwise (viewed toward rotor)

Airflow Direction: Intake over struts

[Materials & Construction]

Frame Material: Plastic (PBT reinforced with 30% glass fiber, UL94V-0)

Impeller Material: Plastic (PBT reinforced with 15% glass fiber, UL94V-0)

Installation Position: Any

Degree of Protection: IP20

[Reliability & Safety Standards]

Min. Ambient Temperature: -10 °C

Max. Ambient Temperature: 70 °C

Storage Temperature: -40 °C - 70 °C

Life Expectancy (L10): 50,000 hours at 25 °C

Standard Compliance: UL 507, CSA C22.2, EN 60950-1

Approval Agency: UL, CUL, TUV, CE, RoHS

Application

The NMB 1606KL-04W-B69-B03 axial fan is used in medical ventilators, railway signaling electronics, industrial drive cooling, hotel automation systems, and high-density electronic products.

Product Images



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