

K3G310-BE90-N1/F01 ebmpapst 400V 400mm EC centrifugal fan

SKU: K3G310-BE90-N1/F01

Price: \$4,999.75

Categories: Fans

Tags: ebmpapst

Product Link:

<https://www.electspares.com/product/k3g310-be90-n1-f01-ebmpapst-400v-400mm-ec-centrifugal-fan/>

Product Description

The ebmpapst K3G310-BE90-N1/F01 is a premium-grade RadiCal EC centrifugal fan module integrated within a 400 x 400 x 245.5 mm aluminum support structure, designed for heavy-duty railway and industrial applications. Operating on a 3-phase 380 - 480 VAC supply, this module utilizes the M3G112-EA motor to deliver a powerful 1300 W output at 2900 RPM. The 310 mm sheet aluminum backward-curved impeller and galvanized inlet nozzle are engineered for high-pressure efficiency and compliance with EN 45545-2 (HL3) and EN 50155 fire and vibration safety standards. Featuring IP55 protection, an integrated PID controller, and RS-485 MODBUS-RTU interface, this fan module provides advanced thermal management and long-term reliability in extreme environments from -40 °C to 60 °C.

K3G310-BE90-N1/F01 Fan Parameters

Manufacturer: ebmpapst

Model Number: K3G310-BE90-N1/F01

Type: EC centrifugal fan

Motor Model: M3G112-EA

Phase: 3~

Nominal Voltage: 400 VAC

Nominal Voltage Range: 380 - 480 VAC

Frequency: 50/60 Hz

Dimensions: 400 x 400 x 245.5 mm

Impeller Size: 310 mm

Weight: 15 kg

[Electrical Data]

Nominal Speed: 2900 RPM

Power Consumption: 1300 W

Current Draw: 2.0 A

Control Input: 0-10 VDC / PWM / RS-485 MODBUS-RTU

Output: 10 VDC (Max. 10 mA) / Alarm relay

Motor Protection: Thermal overload protector (TOP) internally connected

Touch Current: ≤ 3.5 mA (IEC 60990 Fig. 4, TN system)

Insulation Class: F

[Performance & Technical Features]

Number of Blades: 7

Direction of Rotation: Clockwise (viewed toward rotor)

Control Functions: Integrated PID controller, Soft start, Power limiter, Motor current limitation

Monitoring: Run monitoring, Overvoltage/Undervoltage/Phase failure detection

Emergency Operation: Supported

EEPROM Write Cycles: 100,000 maximum

[Materials & Construction]

Electronics Housing: Die-cast aluminum

Impeller Material: Sheet aluminum

Inlet Nozzle Material: Sheet steel, galvanized

Support Structure: Aluminum

Rotor Surface: Painted black

Motor Bearing: Ball bearing (sealed)

Installation Position: Shaft horizontal or rotor on bottom

Condensation Drainage: On rotor side

[Reliability & Safety Standards]

Degree of Protection: IP55

Environmental Protection: H3

Min. Ambient Temperature: -40 °C

Max. Ambient Temperature: 60 °C

Min. Storage Temperature: -40 °C

Max. Storage Temperature: 80 °C

Railway Compliance: EN 45545-2 (HL3), EN 50155, EN 50121-3-2, EN 61373 (Cat. 1B), EN 15085-1 (CPC3)

Approval Agency: EAC, CE

Application

The ebmpapst K3G310-BE90-N1/F01 EC fan module is specifically engineered for mission-critical railway ventilation and industrial cooling where its 400 x 400 x 245.5 mm aluminum frame and 2900 RPM 3-phase EC motor are required to deliver high-pressure airflow under EN 45545-2 HL3 fire safety standards, while its integrated MODBUS-RTU control and 1300 W power-efficient design ensure stable 380 - 480 VAC operation and precise thermal regulation in extreme environments from -40 °C to 60 °C.

Product Images







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