

K3G450-PB29-L1/F01 ebmpapst 400V 450mm EC Centrifugal Fan

SKU: K3G450-PB29-L1/F01

Price: \$6,999.65

Categories: Fans

Tags: ebmpapst

Product Link:

<https://www.electspares.com/product/k3g450-pb29-l1-f01-ebmpapst-400v-450mm-ec-centrifugal-fan/>

Product Description

The ebmpapst K3G450-PB29-L1/F01 is a mission-critical RadiPac EC centrifugal fan assembly featuring a 450 mm aluminum impeller and a heavy-duty support bracket. Powered by the M3G150-IF motor, this 3-phase unit operates at 400 VAC (380 - 480 VAC range), delivering a massive 6800 W output at 2800 RPM. The fan is integrated into a robust support structure with dimensions of 630 x 630 x 536.5 mm, providing a stable footprint for high-capacity industrial installations. The /F01 variant integrates advanced factory-customized electronics, including MODBUS V6.4 RTU communication and a high-precision vibration sensor for real-time condition monitoring. Achieving a static overall efficiency of 68.8% (ErP 2015 N70.7), this 45.1 kg powerhouse is capable of moving 9035 m³/h (5318 CFM) at a high pressure increase of 1749 Pa (7.02 inAq), providing an intelligent thermal management solution for large-scale AHU FanGrids and data center cooling towers.

K3G450-PB29-L1/F01 Fan Parameters

Manufacturer: ebmpapst

Model Number: K3G450-PB29-L1/F01

Motor Model: M3G150-IF

Motor Design: EC Motor (Electronically Commutated)

Phase: 3-phase

Type: EC Centrifugal Fan

Nominal Voltage: 400 VAC

Nominal Voltage Range: 380 - 480 VAC

Frequency: 50/60 Hz

Dimensions: 630 x 630 x 536.5 mm

Impeller Size: 450 mm

Number of Blades: 5

Weight: 45.1 kg

[Electrical Data]

Nominal Speed: 2800 RPM

Power Consumption: 6800 W

Current Draw: 10.3 A

Control Interface: RS-485 MODBUS-RTU (V6.4), 0-10V, PWM

Voltage Output: 3.3 - 24 VDC (Pmax = 800 mW)

External Input: 15 - 50 VDC (for parameterization)

Motor Bearing: Maintenance-free Ball Bearings

Protection Class: I (with protective earth)

Insulation Class: F

Environmental Protection: H1

[Performance & ErP Data]

Max. Air Flow: 9035 m³/h (5318 CFM)

Pressure Increase (pfs): 1749 Pa (7.02 inAq)

Overall Efficiency (η_{es}): 68.8%

Efficiency Grade: N 70.7

Direction of Rotation: Clockwise (looking at rotor)

Airflow Direction: Radial (Centrifugal)

Mode: S1 (Continuous operation)

[Materials & Construction]

Impeller Material: Sheet aluminum

Electronics Housing: Die-cast aluminum

Support Plate/Nozzle: Sheet steel, galvanized

Support Bracket: Steel, painted black

Installation Position: Any (Shaft horizontal preferred)

Condensation Drainage: On rotor side

Termination: Terminal box

[Reliability & Protection]

Degree of Protection: IP55

Min. Ambient Temperature: -40 °C (Occasional start-up permitted)

Max. Ambient Temperature: 40 °C (Storage up to 80 °C)

Technical Features: Integrated PI controller, Vibration sensor, Soft start, Phase failure detection

EMC Immunity: According to EN 61000-6-2 (Industrial)

EMC Emission: According to EN 61000-6-4 (Industrial)

Motor Protection: Electronic motor protection; Thermal overload protection

Approval: UL, CSA, EAC, CE

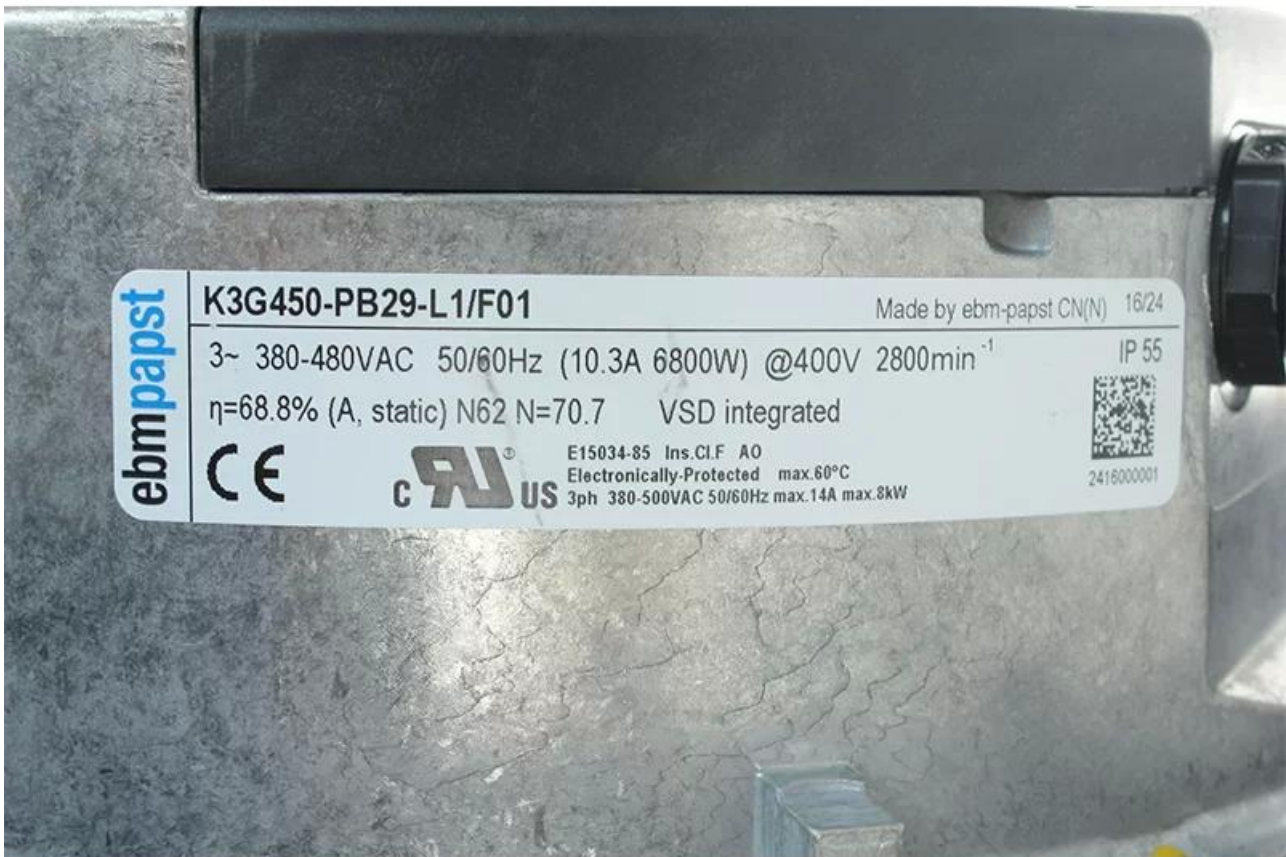
Application

The K3G450-PB29-L1/F01 is specifically designed for high-capacity industrial Air Handling Units

(AHU) and refrigeration plants where its 630 x 630 x 536.5 mm structural footprint and 6800 W power output are required to maintain constant airflow through dense filters, while the /F01 variant's vibration sensor and MODBUS RTU integration allow for advanced predictive maintenance in mission-critical 400 VAC data center FanGrids that demand 45.1 kg of structural stability and operation in extreme environments down to -40 °C.

Product Images









Scan for product details:

