

# A3G400-BK13-P1 ebmpapst 110VDC 400mm EC Axial Fan

**SKU:** A3G400-BK13-P1

**Price:** \$317.48

**Categories:** Fans

**Tags:** ebmpapst

**Product Link:**

<https://www.elecspares.com/product/a3g400-bk13-p1-ebmpapst-110vdc-400mm-ec-axial-fan/>

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## Product Description

The ebmpapst A3G400-BK13-P1 is a high-performance 110V DC EC Axial Fan featuring a 400 mm impeller diameter and powered by the advanced M3G084-DF motor. This unit is specifically engineered for demanding environments, operating on a nominal 110 VDC with a wide range of 77-138 VDC. It delivers a rated speed of 1670 RPM at maximum load, consuming 460 W with a current draw of 4.2 A. The fan features 5 blades made of PA plastic (UL94 V0) and a black-painted die-cast aluminum electronics housing. With an IP55 protection rating, H3 environmental protection class, and Class F insulation, the A3G400-BK13-P1 is optimized for S1 continuous duty in railway and heavy-duty industrial applications. It is fully equipped with modern control features including RS-485 MODBUS-RTU, 0-10V/PWM speed control, and comprehensive thermal and electrical protections.

A3G400-BK13-P1 Fan Parameters

Manufacturer: ebmpapst

Model Number: A3G400-BK13-P1

Motor Model: M3G084-DF (Size 84)

Type: EC Axial Fan (DC)

Nominal Voltage: 110 VDC

Nominal Voltage Range: 77-138 VDC

Dimensions: 392 x 139.3 mm

Impeller Size: 400 mm

Weight: 4.32 kg

[Electrical Data]

Speed: 1670 RPM

Power Consumption: 460 W

Current Draw: 4.2 A

Method of Obtaining Data: ml (Max. load)

Control Input: 0-10 VDC / PWM

Output: 10 VDC, max. 10 mA

Interface: RS-485 MODBUS-RTU

Insulation Class: F

Motor Bearing: Ball bearing (Sealed)

**[Performance & Protection]**

Max. Back Pressure: 170 Pa

Degree of Protection: IP55

Moisture (F) / Environmental (H) Protection Class: H3

Protection Class: I (with protective earth)

Touch Current: <= 3.5 mA (IEC 60990)

**[Technical Features]**

- Soft start
- Operation and alarm display / Alarm relay
- Motor current limitation
- Overvoltage and line undervoltage detection
- Thermal overload protection for electronics/motor
- Reverse polarity protection
- EEPROM write cycles: 100,000 maximum
- Control interface with SELV potential
- RS-485 MODBUS-RTU

**[Materials & Construction]**

Impeller Material: PA plastic UL94 V0

Electronics Housing: Die-cast aluminum, painted black

Rotor Surface: Painted black

Number of Blades: 5

Airflow Direction: V

Direction of Rotation: Counterclockwise, viewed toward rotor

Installation Position: Shaft horizontal or rotor on bottom (Rotor on top on request)

Condensation Drainage Holes: On rotor side

Mode: S1

Cable: Lateral exit

**[Reliability & Standards]**

Min. Ambient Temperature: -40 °C

Max. Ambient Temperature: 60 °C

Min./Max. Storage Temp: -40 °C to +80 °C

Motor Protection: Thermal overload protector (TOP) internally connected

Conformity: EN 15085-1; EN 45545-2 (HL3); EN 50155; EN 61373 (Cat. 1B)

Approval: EAC

#### Application

The ebmpapst A3G400-BK13-P1 is a specialized EC axial fan designed for mission-critical railway and transportation infrastructure, meeting stringent fire protection (EN 45545-2) and vibration (EN 61373) standards. Its 110V DC operation and RS-485 MODBUS-RTU interface allow for seamless integration into vehicle control systems for cooling traction inverters, brake resistors, and HVAC units. The PA plastic UL94 V0 blades and IP55/H3 rating provide exceptional resistance to moisture and fire hazards. With features like soft start and thermal overload protection, it is ideal for high-static pressure environments requiring precise speed regulation and high reliability in sub-zero or high-temperature ambient conditions.

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## Product Images

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