

W4D400-CP12-31 ebmpapst 230/400V 135W 400mm AC Axial Fan

SKU: W4D400-CP12-31

Price: \$659.96

Categories: Fans

Tags: ebmpapst

Product Link:

<https://www.electspares.com/product/w4d400-cp12-31-ebmpapst-230-400v-135w-400mm-ac-axial-fan/>

Product Description

The ebmpapst W4D400-CP12-31 is a high-performance 230/400 V industrial AC axial fan with an impeller size of 400 mm, purpose-built to deliver elite-level thermal cooling in high-resistance airflow paths. This unit features a heavy-duty M4D074-EI external rotor motor capable of sustaining a 135 W power input (at 50 Hz) or 185 W (at 60 Hz) to drive its specialized 5-blade black-painted sheet steel impeller at speeds of 1450 RPM or 1690 RPM respectively. Engineered specifically for air displacement in large-scale cooling systems, it utilizes a 400 mm diameter housing to provide balanced pressure and airflow for mission-critical hardware. The mechanical design relies on precision maintenance-free ball bearings and a pre-galvanized sheet steel frame coated with black plastic (RAL 9005) to ensure reliable continuous operation across an ambient temperature range of -25 °C to 40 °C. Featuring a versatile 3-phase electrical interface supporting Delta (230 VAC) or Star (400 VAC) wiring, this fan is a critical component for condenser cooling, industrial ventilation, and power electronics thermal management where long-term durability and high aerodynamic efficiency are mandatory.

W4D400-CP12-31 Fan Parameters

Manufacturer: ebmpapst

Model Number: W4D400-CP12-31

Motor Model: M4D074-EI

Series: AC Axial Series

Fan Size: 400 mm

Type: AC Axial Fan

Bearing Type: Ball Bearing

Nominal Voltage: 230 VAC (Delta) / 400 VAC (Star)

Voltage Range: 220 - 480 VAC

Frequency: 50/60 Hz

Weight: 7980 g

[Electrical Data]

Input Power: 135 W (50 Hz) / 185 W (60 Hz)

Nominal Current (400V): 0.44 A (50 Hz) / 0.39 A (60 Hz)

Nominal Current (230V): 0.76 A (50 Hz) / 0.68 A (60 Hz)

Starting Current: 1.7 A (at 400V) / 3.0 A (at 230V)

Nominal Speed: 1450 RPM (50 Hz) / 1690 RPM (60 Hz)

Motor Design: AC External Rotor Motor (3-Phase)

Wiring: Δ (Delta) for 230V / Y (Star) for 400V

Motor Protection: Locked-rotor protection (Customer must install overheating protection)

Insulation Class: Class B

Touch Current: < 0.75 mA

Termination: Variable cable connection

[Performance & Acoustics]

Max. Air Flow: 2265.9 CFM (3850 m³/h / 64.17 m³/min)

Max. Static Pressure: 12.24 mmH₂O (120.0 Pa / 0.48 inH₂O)

Efficiency Grade: N 43.6 (Overall efficiency η_{es} 32.7%)

Number of Blades: 5

Direction of Rotation: Clockwise (Viewed toward rotor)

Airflow Direction: "A"

Mode of Operation: S1 (Continuous operation)

[Materials & Construction]

Fan Housing Material: Sheet steel, pre-galvanized, black plastic coated (RAL 9005)

Blade Material: Sheet steel, painted black

Guard Grille Material: Steel, black plastic coated (RAL 9005)

Rotor Surface: Painted black

Installation Position: Shaft horizontal or rotor on bottom

Condensation Drainage: Rotor side holes

Degree of Protection: IP44

[Reliability & Safety Standards]

Min. Ambient Temperature: -25 °C

Max. Ambient Temperature: 40 °C

Storage Temperature: -40 °C - 80 °C

Standard Compliance: EN 60335-1, CE

Approval Agency: CCC

Application

The ebmpapst W4D400-CP12-31 axial fan is used in commercial refrigeration units, industrial heat exchangers, agricultural ventilation systems, large power transformer cooling, and factory climate control modules.

Product Images







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