

S4D450-AA14-02 ebmpapst 400V 450mm AC Axial Fan

SKU: S4D450-AA14-02

Price: \$707.10

Categories: Fans

Tags: ebmpapst

Product Link:

<https://www.electspares.com/product/s4d450-aa14-02-ebmpapst-400v-450mm-ac-axial-fan/>

Product Description

The ebmpapst S4D450-AA14-02 is a high-performance 400 VAC AC Axial Fan with an impeller size of 450 mm, specifically engineered for demanding thermal management in industrial frequency converters and electrical control cabinets. Driven by a robust three-phase M4D094-HA external rotor motor with a max. power consumption of 585 W at 50 Hz and up to 660 W at 60 Hz, this precision unit operates at a rated speed of up to 1540 RPM, delivering a powerful airflow for efficient heat extraction. Constructed with a 5-blade painted black sheet steel impeller featuring high-precision ball bearings and a PP plastic terminal box, this 10.3 kg unit provides a dependable and energy-efficient air-moving solution with an overall efficiency of 39.4% and IP54 protection, ensuring maximum cooling performance and long-term mechanical stability with integrated thermal overload protection for high-power inverters, variable frequency drives (VFD), and integrated electrical switchgear systems at the end.

S4D450-AA14-02 Fan Parameters

Model Number: S4D450-AA14-02

Manufacturer: ebmpapst

Motor Model: M4D094-HA

Phase: 3~

Nominal Voltage: 400 VAC

Wiring: Δ (Delta) / Y (Star)

Frequency: 50 / 60 Hz

Max. Power Consumption: 585 W (50 Hz, Δ) / 390 W (50 Hz, Y)

Max. Power Consumption: 660 W (60 Hz, Δ) / 400 W (60 Hz, Y)

Max. Current Draw: 1.1 A (50 Hz, Δ) / 0.67 A (50 Hz, Y)

Max. Current Draw: 1.16 A (60 Hz, Δ) / 0.7 A (60 Hz, Y)

Rated Speed: 1330 RPM (50 Hz, Δ) / 1000 RPM (50 Hz, Y)
Rated Speed: 1540 RPM (60 Hz, Δ) / 1060 RPM (60 Hz, Y)
Static Pressure Increase: 200 Pa (50 Hz, Δ) / 110 Pa (50 Hz, Y)
Static Pressure Increase: 110 Pa (60 Hz, Δ) / 55 Pa (60 Hz, Y)
Starting Current: 3.9 A (50 Hz, Δ) / 1.3 A (50 Hz, Y)
Starting Current: 3.5 A (60 Hz, Δ) / 1.2 A (60 Hz, Y)
Max. Air Flow: 62.23 CFM (105.7 m³/h / 1.76 m³/min)
Max. Static Pressure: 9.81 mmH₂O (96.24 Pa / 0.39 inAq)

ErP Data (Optimum Efficiency Level)

Overall Efficiency η_{es} : 39.4% (50 Hz, Δ) / 31.3% (50 Hz, Y)
Efficiency Grade: N 48.1 (50 Hz, Δ) / N 40 (50 Hz, Y)
Measurement Category: A
Efficiency Category: Static
Variable Speed Drive: No
Power Consumption P_e : 0.42 kW
Working Air Flow: 4500 m³/h
Static Pressure Increase pfs: 135 Pa
Rated Speed n: 1385 RPM
Specific Ratio: 1.00

Mechanical Specifications

Impeller Size: 450 mm
Weight: 10.3 kg
Motor Size: 94
Number of Blades: 5
Airflow Direction: A
Direction of Rotation: Clockwise (viewed toward rotor)
Impeller Material: Sheet steel, painted black
Rotor Surface: Painted black
Terminal Box Material: PP plastic
Degree of Protection: IP54
Insulation Class: Class F
Moisture/Environmental Class: H2
Installation Position: Shaft horizontal or rotor on bottom
Condensation Drainage Holes: On rotor side
Motor Bearing: Ball bearing
Touch Current (IEC 60990): ≤ 3.5 mA
Electrical Hookup: Terminal box
Motor Protection: Thermal overload protector (TOP) with basic insulation
Operating Temperature: -40 - +70 °C
Storage Temperature: -40 - +80 °C
Standard Compliance: EN 60034-1; CE

Approval Agency: CCC; EAC

Application

The ebmpapst S4D450-AA14-02 AC fan is primarily utilized in industrial frequency converters, power inverters, and electrical control cabinet heat dissipation systems.

Product Images









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