

8300100550 VBH0450CTRLS ebmpapst

Brand: ebmpapst

SKU: 8300100550

Category: EC Fans

URL: <https://www.fansco.com/item/8300100550-ebmpapst/>

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Product Description

The ebmpapst 8300100550 VBH0450CTRLS is a high-performance 400VAC EC Centrifugal Fan featuring a RadiPac backward-curved, single-intake impeller with a support bracket, specifically engineered for mission-critical cooling in Industrial Frequency Converters and high-precision HVAC systems. Driven by a 3-phase high-efficiency EC external rotor E11229-60 motor with integrated electronics and maintenance-free ball bearings, this unit operates on a 380 - 480 VAC supply delivering a Max. Power Consumption of 1430 W and a Max. Current Draw of 2.2 A at a rated speed of 2110 RPM. This High-performance unit achieves a Max. Air Flow of 3507.9 CFM (5960.0 m³/h / 99.33 m³/min) and a Max. Static Pressure of 57.51 mmH₂O (564.0 Pa / 2.27 inAq). Featuring intelligent speed regulation via 0-10V/PWM and RS-485 MODBUS-RTU (V5.1), integrated PID controller, and passive PFC, this 5-blade unit with PP plastic construction is optimized for industrial VFD systems requiring advanced motor protection and massive airflow in a black-painted rotor design at the end.

8300100550 Fan Parameters

Model Number: 8300100550

Ident Number: VBH0450CTRLS

Manufacturer: ebmpapst

Type: EC Centrifugal Fan (RadiPac, backward-curved, single-intake, with support bracket)

Impeller Size: 450 mm

Motor Model: E11229-60

Weight: 45 kg

Dimensions: 560 x 560 x 360 mm

Bearing Type: Ball bearing

Phase: 3~

Nominal Voltage: 400 VAC

Nominal Voltage Range: 380 - 480 VAC

Frequency: 50 / 60 Hz

Method of Obtaining Data: ml (Max. load)

Max. Current Draw: 2.2 A

Max. Power Consumption: 1430 W

Rated Speed: 2110 RPM

Max. Air Flow: 3507.9 CFM (5960.0 m³/h / 99.33 m³/min)
 Max. Static Pressure: 57.51 mmH₂O (564.0 Pa / 2.27 inAq)
 Working Air Flow: 5960.0 m³/h
 Static Pressure Increase: 564.0 Pa
 Efficiency Grade N: 80.4
 Overall Efficiency η_{es} : 71.4%
 Control Interface: Control input 0-10 VDC / PWM; RS-485 MODBUS-RTU (V5.1)
 Output Signal: Status relay; Output 10 VDC (max. 10 mA)
 Technical Features: Integrated PID controller; Passive PFC; MODBUS V5.1; Soft start; Power limiter; Motor current limitation; Line undervoltage / phase failure detection; EEPROM write cycles (100,000 max)
 Motor Protection: Thermal overload protector (TOP) internally connected; Electronic motor protection
 Number of Blades: 5
 Insulation Class: Class F
 Degree of Protection: IP55
 Protection Class: I (if protective earth is connected)
 Impeller Material: PP plastic
 Housing Material: Sheet steel, galvanized (Support plate); Steel, painted black (Support bracket)
 Inlet Nozzle Material: ABS plastic
 Rotor Surface: Painted black
 Direction of Rotation: Clockwise (viewed toward rotor)
 Installation Position: See legend on product drawing
 Mode: S1
 Ambient Temperature (Max.): 40 °C (Transport/Storage: +80 °C)
 Min. Operating Temperature: -40 °C (Transport/Storage: -40 °C)
 Standard Compliance: EN 61800-5-1; CE; UKCA
 Approval: UL 1004-7 + 60730-1; EAC; CSA C22.2 No. 77 + CAN/CSA-E60730-1

Application

The ebmpapst 8300100550 RadiPac module is the primary cooling component for industrial frequency converters and ventilation systems requiring high-efficiency EC performance, PID control, and integrated MODBUS-RTU communication.

Technical Specifications

Attribute	Value
Part number	8300100550
Manufacturer	ebm-papst
Bearing Type	Ball Bearing