

R1G175-RB33-G01 ebmpapst 48V 175mm EC Centrifugal Fan

SKU: R1G175-RB33-G01

Price: \$159.49

Categories: Fans

Tags: ebmpapst

Product Link:

<https://www.elecspares.com/product/r1g175-rb33-g01-ebmpapst-48v-175mm-ec-centrifugal-fan/>

Product Description

The ebmpapst R1G175-RB33-G01 is a high-performance 48 V RadiCal EC centrifugal fan with an impeller size of 175 mm, purpose-built to deliver elite-level thermal cooling in high-resistance airflow paths. This unit features a heavy-duty brushless EC motor capable of sustaining a 75.0 W power input to drive its specialized 7-blade glass-fiber reinforced PA plastic impeller at a consistent 3950 RPM. Engineered specifically for high-efficiency air displacement in complex thermal systems, it utilizes a backward-curved design to generate high velocity and pressure without the need for a scroll housing. The mechanical design relies on a precision-shielded dual ball bearing system and a painted black rotor surface to ensure continuous S1 mode operation. Featuring integrated electronics for PWM speed control, a tachometer output, and an IP24 protection rating, this fan is a critical component for telecommunications base stations, networking hardware, and industrial power systems where maximum energy efficiency and precise air density are mandatory.

R1G175-RB33-G01 Fan Parameters

Manufacturer: ebmpapst

Model Number: R1G175-RB33-G01

Series: RadiCal

Impeller Size: 175 mm

Type: EC Centrifugal Fan (Backward-curved)

Bearing Type: Ball Bearing

Nominal Voltage: 48 VDC

Voltage Range: 36.0 - 57.0 VDC

Weight: 0.94 kg

[Electrical Data]

Input Power: 75.0 W

Nominal Current: 1.85 A

Nominal Speed: 3950 RPM

Motor Design: Brushless DC Motor (Electronically Commutated)

Control Input: PWM (Pulse Width Modulation) / 0-10 VDC

Signal Output: FG (Frequency Generator/Tachometer)

Motor Protection: Soft start, Reverse polarity, Locked-rotor, and Over-temperature protection

Insulation Class: Class B

Termination: 4-Lead wires (AWG 22)

[Performance & Acoustics]

Max. Air Flow: 359.0 CFM (610.0 m³/h / 10.17 m³/min)

Max. Static Pressure: 52.01 mmH₂O (510.0 Pa / 2.05 inH₂O)

Sound Power Level: 73.0 dB(A)

Number of Blades: 7

Direction of Rotation: Clockwise (viewed toward rotor)

Airflow Direction: Radial

Mode of Operation: S1 (Continuous operation)

[Materials & Construction]

Impeller Material: PA plastic, glass-fiber reinforced

Rotor Surface: Painted black

Installation Position: Any

Condensation Drainage: None, open rotor

Degree of Protection: IP24

[Reliability & Safety Standards]

Min. Ambient Temperature: -25 °C

Max. Ambient Temperature: 70 °C

Storage Temperature: -40 °C - 80 °C

Life Expectancy (L10): 70,000 hours at 40 °C

Standard Compliance: EN 60950-1, CE

Approval Agency: VDE, UL, CSA

Application

The ebmpapst R1G175-RB33-G01 centrifugal fan is used in telecommunications base stations, networking switches, industrial battery storage systems, server cabinet ventilation, and high-wattage power supply cooling.

Product Images







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