

R3G400-RG53-25 ebmpapst 230V 400mm EC Centrifugal Fan

SKU: R3G400-RG53-25

Price: \$874.96

Categories: Fans

Tags: ebmpapst

Product Link:

<https://www.electspares.com/product/r3g400-rg53-25-ebmpapst-230v-400mm-ec-centrifugal-fan/>

Product Description

The ebmpapst R3G400-RG53-25 is a high-efficiency EC Centrifugal Fan with an impeller size of 400 mm and dimensions of 400 x 194 mm. Powered by the specialized M3G112-EA motor, this backward-curved fan is a key component of the aerodynamically optimized RadiCal series. Operating on a nominal 230 VAC with a wide input range of 200-277 VAC, it is rated at an input power of 470 W and an output power of 390 W. At its maximum speed of 1460 RPM, it delivers a high-volume airflow of 1836.4 CFM (3120 m³/h). Specifically engineered as an "EC Retrofit Solution" for Fan Filter Units (FFU) and cleanroom ventilation, it features integrated GreenTech EC technology with a glass-fiber reinforced composite impeller designed to minimize noise while maximizing static efficiency. Equipped with IP20 protection and a robust ball bearing system, it is the premier choice for upgrading cleanroom infrastructures to achieve intelligent, energy-saving performance.

R3G400-RG53-25 Fan Parameters

Manufacturer: ebmpapst

Model Number: R3G400-RG53-25

Motor Model: M3G112-EA

Type: EC Centrifugal Fan (Backward-curved)

Dimensions: 400 x 194 mm

Impeller Size: 400 mm

Nominal Voltage: 230 VAC

Operating Voltage Range: 200 to 277 VAC

Frequency: 50 / 60 Hz

Speed: 1460 RPM

Power Input/Output: 470 / 390 W

Rated Current: 2.1 A

Max. Airflow: 1836.4 CFM (3120 m³/h)

Max. Static Pressure: 580 Pa (2.33 inAq)

Noise Level: 69 dB(A)

Weight: 9 kg

Termination: Terminal box (Integrated electronics)

Bearing Type: Ball Bearing

Housing Material: Die-cast aluminum (Motor & Electronics housing)

Impeller Material: PP plastic, glass-fiber reinforced

Direction of Rotation: Clockwise (viewed toward rotor)

Degree of Protection: IP20

Insulation Class: B

Humidity Class: F3-1

Operating Temp. Range: -25 °C to +60 °C

Control Input: 0-10 VDC / PWM / Modbus RTU

Signal Output: Tacho signal; Alarm relay

Safety Protections: Soft start, Motor current limitation, Over-temperature protection, Locked-rotor protection, Under-voltage detection

Approvals: VDE, CE, UL, CSA, CCC, EAC

Application

The R3G400-RG53-25 is a specialized EC centrifugal fan designed for high-performance ventilation and "EC Retrofit Solutions" in Fan Filter Units (FFU). Its primary application lies in the energy-saving modernization of existing cleanroom infrastructures within semiconductor manufacturing, pharmaceutical labs, and biotechnology facilities. The integrated M3G112-EA EC motor allows for a significant reduction in energy consumption compared to traditional AC fans, while providing more precise airflow control. Its 400 mm RadiCal impeller is specifically optimized to overcome the substantial static pressure resistance posed by HEPA/ULPA filters, maintaining a steady 1836.4 CFM (3120 m³/h) airflow. Additionally, the integrated Modbus RTU interface facilitates centralized monitoring and demand-based control of hundreds of FFU units, making it the definitive choice for facilities seeking optimized air change rates and reduced operational costs in large-scale air handling and filtration systems.

Product Images









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