

R3G500-RH52-28 ebmpapst 230V 500mm EC Centrifugal Fan

SKU: R3G500-RH52-28

Price: \$974.95

Categories: Fans

Tags: ebmpapst

Product Link:

<https://www.electspares.com/product/r3g500-rh52-28-ebmpapst-230v-500mm-ec-centrifugal-fan/>

Product Description

The ebmpapst R3G500-RH52-28 is a high-efficiency EC Centrifugal Fan with an impeller size of 500 mm and dimensions of 500 x 234 mm. Powered by the advanced M3G112-GA motor, this backward-curved fan is part 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 880 W and 3.9 A. At its maximum speed of 1150 RPM, it delivers a substantial airflow of 2943 CFM (5000 m³/h). This model is specifically engineered for EC energy-saving retrofits in Fan Filter Units (FFU). Featuring integrated GreenTech EC technology with a glass-fiber reinforced PP plastic impeller, it is designed to minimize noise and maximize static efficiency. Equipped with IP20 protection and a robust ball bearing system, it is the premier choice for upgrading cleanroom ventilation systems to intelligent, energy-efficient performance.

R3G500-RH52-28 Fan Parameters

Manufacturer: ebmpapst

Model Number: R3G500-RH52-28

Motor Model: M3G112-GA

Type: EC Centrifugal Fan (Backward-curved)

Dimensions: 500 x 234 mm

Impeller Size: 500 mm

Nominal Voltage: 230 VAC

Operating Voltage Range: 200 to 277 VAC

Frequency: 50 / 60 Hz

Speed: 1150 RPM

Power Input: 880 W

Rated Current: 3.9 A

Max. Airflow: 2943 CFM (5000 m³/h)

Max. Static Pressure: 480 Pa (1.93 inAq)

Noise Level: 68 dB(A)

Weight: 13 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, Line undervoltage detection

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

Application

The R3G500-RH52-28 is specifically designed as an "EC Retrofit Solution" for Fan Filter Units (FFU) and cleanroom ventilation systems. Its primary application is the energy-saving modernization of existing cleanroom infrastructures, such as semiconductor wafer fabs, pharmaceutical production lines, and biotechnology laboratories. The high-efficiency M3G112-GA EC motor allows for a direct replacement of traditional, energy-intensive AC fans, often reducing energy consumption by 30-50%. With its 2943 CFM (5000 m³/h) capacity and optimized RadiCal impeller, it effectively overcomes the high static pressure of HEPA/ULPA filters. The integrated Modbus RTU or 0-10V interface enables centralized control and real-time monitoring of hundreds of FFU units, allowing for dynamic adjustment of cleanroom pressure and air change rates. This fan is the definitive choice for facilities aiming to achieve green building certifications or significant operational cost reductions through intelligent airflow management.

Product Images









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