



## R3G310-AN43-71 ebmpapst

Brand: ebmpapst

SKU: R3G310-AN43-71

Category: AC Fans

URL: <https://www.fansco.com/item/r3g310-an43-71-ebmpapst/>

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## Product Description

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R3G310-AN43-71 ebmpapst 230VAC 318x167.2mm Ball 470W 2435RPM IP54 8 Wire Leads with Splice Terminals Tubeaxial Thermal Overload Protector AC Fan High-Efficiency EC Centrifugal Fan R3G310-AN43-71

Engineered for demanding industrial and commercial environments, the **R3G310-AN43-71** by ebm-papst is a **backward-curved, single-inlet EC centrifugal fan** optimized for precision airflow management, energy efficiency, and rugged reliability. Combining advanced EC motor technology with intelligent controls, this fan sets a new standard for performance in ventilation, heat dissipation, and air circulation systems.

Key Features

1. Unrivalled High-Efficiency EC Technology

1. **Exceptional Energy Savings:** Boasting an **overall efficiency of 60.7%**, far surpassing the EU ErP 2015 standard requirement of 48%, the R3G310-AN43-71 slashes energy costs significantly. It's a green choice that also protects your bottom line.
2. **Precision Variable Speed Drive:** Outfitted with a state-of-the-art frequency-controlled EC motor (M3G084-FA), this fan offers pinpoint speed adjustment via 0-10 VDC or PWM input (1-10 kHz). Whether handling light or heavy loads, it optimizes performance, ensuring consistent operation.

2. Robust Build for Demanding Environments

1. **Durable and Resilient Materials:** Crafted with a die-cast aluminum electronics housing and a sheet aluminum impeller with a sleek black painted finish, the fan resists corrosion, promising an extended lifespan even in harsh conditions.
2. **IP54 Rated Protection:** Dust-tight and shielded against water splashes, it's the perfect fit for dusty, damp, or industrial settings, where exposure to elements is the norm.
3. **Extensive Temperature Tolerance:** Operating reliably from **-25°C to +45°C** (ambient) and withstanding storage and transport from -40°C to +80°C, it performs flawlessly across a wide range of temperatures.

3. Intelligent Control and Protection

1. **Advanced Integrated Electronics:** Equipped with features like soft start, motor current limitation, thermal overload protection, and line undervoltage

detection, it safeguards against potential faults, minimizing downtime and maintenance hassle.

2. **Comprehensive Alarm & Feedback System:** The built-in alarm relay (normally closed) and 10 VDC output (1.1 mA max.) enable seamless system monitoring and diagnostics, giving you full visibility and control over its operation.
  3. **Superior EMC Compliance:** Meeting EN 61000 standards for industrial immunity and household-level interference emission, it ensures seamless compatibility with sensitive systems, eliminating concerns about electromagnetic interference.
4. Flexible Installation and Quiet Operation
1. **Adaptable Design:** Offering the flexibility of horizontal shaft or “rotor on top” installation (with “rotor on bottom” available upon request), it can be customized to fit diverse installation requirements.
  2. **Quiet Performance:** Thanks to its backward-curved blades, the fan operates quietly while delivering consistent air pressure and flow, ideal for applications where noise reduction is crucial.
  3. **Global Recognition:** Certified for CE, UL, CSA, CCC, EAC, and more, it adheres to international safety and performance standards, making it a trusted choice across the globe.

## Technical Specifications

**Category Details Model** R3G310-AN43-71 **Motor Type** EC motor (M3G084-FA), single-phase (1~) **Voltage** 230 VAC (range: 200-277 VAC), 50/60 Hz **Speed (Rated)** 2435 RPM (at max. load, "ml" condition) **Power Consumption** 470 W (rated), 0.46 kW (at optimal efficiency) **Air Flow** Up to 1810 m<sup>3</sup>/h (optimal efficiency point) **Pressure Increase** 507 Pa (optimal efficiency point) **Dimensions** 310 mm (impeller diameter), 4.56 kg weight **Protection Class** IP54 (dust/water resistance), Class I (with PE connection) **Insulation Class** B (130°C temperature rating) **Control Inputs** 0-10 VDC / PWM (1-10 kHz, 1-10 V)

Performance & Versatility

1. **Broad Operating Spectrum:** With a stable air flow reaching up to 2870 m<sup>3</sup>/h at free air and a pressure capacity of up to 750 Pa, it performs across 1400-2560 RPM, adapting effortlessly to diverse load demands.
2. **Proven Reliability:** Its performance data, validated per ISO 5801

(Installation Category A) and EN 17166, guarantees consistent operation under standardized conditions, ensuring you can rely on it every time.

### Ideal Applications

1. **Industrial Ventilation:** Perfect for factories, warehouses, and processing plants, ensuring efficient air circulation and ventilation.
2. **HVAC Systems:** Ideal for commercial buildings, maintaining optimal indoor air quality and comfort.
3. **Machinery Cooling:** A trusted choice for automotive, textile, and manufacturing equipment, preventing overheating and ensuring smooth operation.
4. **Air Purification:** Well-suited for air purifiers and filtration systems that require precise pressure control for effective performance.

### Benefits at a Glance

**Substantial Energy Savings:** The EC motor and variable speed drive cut power consumption by up to 30% compared to traditional AC fans, delivering significant savings over time.

**Minimal Maintenance:** Thanks to ball bearings and rugged construction, it reduces downtime and service needs, keeping your operations running smoothly.

**Seamless Integration:** Compatible with standard control systems (0-10V/PWM) and featuring built-in protective features, it offers easy plug-and-play operation.

**Universal Compatibility:** With its multi-voltage design (200-277 VAC) and international certifications, it's suitable for use in any corner of the world.

### Elevate Your Ventilation System with ebm-papst's Excellence

The R3G310-AN43-71 seamlessly blends German engineering precision with cutting-edge EC technology, offering unparalleled efficiency, durability, and control for all your air movement needs. Backed by ebm-papst's 50+ years of expertise, it's the smart choice to optimize performance while reducing operational costs.

Contact us today to explore customization options, get installation support, or request a quote. Let the R3G310-AN43-71 transform your ventilation experience!

## Technical Specifications

Attribute	Value
Part Number	R3G310-AN43-71
Manufacturer	ebm-papst
Series	R3G310
Fan Type	AC
Voltage Rating	230 VAC
Dimensions	318x167.2 mm
Bearing Type	Ball Bearing
Subcategory	Tubeaxial
Features	Thermal Overload Protector (TOP)
Power Rating	470 W
Fan Speed	2435 RPM
Termination	8 Wire Leads with Splice Terminals
IP Rating	IP54
Operating Temperature	-13 ~ 113°F (-25 ~ 45°C)
Approval Agency	CCC, CE, CSA, EAC, UL
Weight	10.1 lbs (4.6 kg)