

512F ebmpapst 12VDC 50x50x15mm 1W Axial Fan Datasheet



Brand: ebmpapst

SKU: 897511279789

Category: Axial & Centrifugal Fans

Price: \$52.99

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Product Page: <https://www.equipspares.com/product/512f-ebmpapst-12vdc-50x50x15mm-1w-axial-fan>

Product Description

The ebmpapst 512F is a compact DC axial fan engineered for high-density electronic cooling applications requiring minimal acoustic resonance and reliable thermal management. Featuring a robust electronically commutated external rotor motor, this unit utilizes ebmpapst's proprietary Sintec sleeve bearing system to ensure low-noise operation and optimized thermal impedance over extended lifecycles. The aerodynamic design of the impeller, constructed from glass-fiber reinforced PBT plastic, maximizes airflow efficiency while maintaining structural rigidity under thermal stress. This 12VDC model delivers consistent performance with a compact footprint, making it ideal for precision instrumentation and telecommunications equipment where space and noise are critical constraints.

Model Number: 512F

Brand: ebmpapst

Product Type: DC Axial Fan

Rated Voltage: 12 VDC

Voltage Range: 10.0 - 14.0 VDC

Rated Current: 0.085 A

Power Consumption: 1.0 W

Rated Speed: 5000 RPM

Max. Air Flow: 11.8 CFM (20 m³/h)

Max. Static Pressure: 42 Pa (0.17 inH₂O)

Bearing Type: Sintec Sleeve Bearing

Noise Level: 30 dB(A)

Dimensions: 50 x 50 x 15 mm

Weight: 0.027 kg

Housing Material: PBT Plastic (UL94V-0)

Impeller Material: PBT Plastic (UL94V-0)

Operating Temperature: -20 to +65 °C

Life Expectancy: 50,000 Hours (40 °C)

Termination: 2-Wire Leads (AWG 28)

Motor Protection: Impedance Protected

Direction of Rotation: Counter-clockwise (viewed toward rotor)

Airflow Direction: Exhaust over struts

The 512F is specifically calibrated for thermal management in space-constrained environments such as compact server racks, network switches, and telecommunications cabinets. Its low acoustic profile makes the 512F suitable for medical diagnostic devices and office-based automation systems where noise suppression is critical. Additionally, the 512F serves as an effective cooling solution for industrial control units and embedded power supplies requiring consistent airflow.

Supplemental Images

