



AFB0924HH-R00 Delta

Brand: Delta

SKU: AFB0924HH-R00

Category: DC Fans

URL: <https://www.fansco.com/item/afb0924hh-r00-delta/>

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Product Description

AFB0924HH-R00 Delta 24VDC 92x92x25.40mm 57.9CFM 0.221inH₂O(55.0Pa)
Ball 38dB(A) 3.12W 3200RPM 3 Wire Leads Locked Rotor Sensor DC Fan

The AFB0924HH-R00 is a 24VDC brushless axial flow fan manufactured by Delta Electronics, designed for robust thermal management in industrial and commercial applications. Operating within a wide voltage range of 14.0–27.6VDC, it features a nominal input current of 0.13A (maximum 0.25A) and power consumption of 3.12W (nominal) to 6.00W (maximum), delivering a reference rotational speed of 3200 RPM. This fan generates a maximum free airflow of 1.640 m³/min (57.92 CFM) (minimum 1.530 m³/min / 54.03 CFM) and a static pressure of 5.62 mmH₂O (0.221 inchH₂O) (minimum 5.00 mmH₂O / 0.197 inchH₂O) at zero airflow, with average noise levels of 38.0 dB-A (maximum 41.0 dB-A) measured 1 meter from the intake in an anechoic chamber.

Encased in a 92x92x25.4 mm (3.622x3.622x1.000 inch) frame weighing 99 grams, the fan utilizes UL94V-0 fire-retardant plastic for both the frame and impeller, ensuring compliance with safety standards for flame resistance. Its double ball bearing system offers a long operational life of 70,000 hours under continuous use at 40°C with 15–65% relative humidity, rotating clockwise when viewed from the nameplate side. The fan is equipped with 3-wire leads (UL1007-F AWG#24): red for positive, black for negative, and blue for the lock signal (specific to the -R00 variant), facilitating easy electrical integration.

Environmentally durable, the fan operates reliably in temperatures ranging from -10°C to +70°C and withstands storage conditions from -40°C to +75°C, tolerating 5–90% relative humidity during operation and 5–95% during storage (non-condensing). Safety features include locked rotor protection, which prevents fire for 96 hours under stalled conditions at rated voltage, and polarity protection to endure temporary reverse connections, though proper wiring is essential to avoid damage. Electrical safety is ensured by an insulation strength of ≥ 10 M Ω at 500VDC and a dielectric strength of 5mA maximum at 500VAC for 1 minute between the frame and positive terminal, adhering to UL Class A insulation standards.

Including a rotation detect (RD) signal in open collector mode, the fan enables real-time monitoring of rotor status, with defined timing parameters for start-up, lock detection, and restart sequences. This feature supports diagnostic capabilities for critical applications. The fan is RoHS compliant, free of ozone-depleting substances, and manufactured in China, Thailand, or Taiwan, making it suitable for use in industrial controls, telecommunications equipment, and

medium-duty cooling systems.

For optimal performance, proper mounting is advised to prevent resonance or vibration, and handling should avoid stress on the leads. When operating multiple fans in parallel, a $\geq 4.7\mu\text{F}$ capacitor is recommended to stabilize power supply. With its combination of high airflow, wide temperature tolerance, and robust safety features, the AFB0924HH-R00 offers a reliable cooling solution for environments where durability and consistent performance are paramount.

Technical Specifications

Attribute	Value
Part Number	AFB0924HH-R00
Manufacturer	Delta Electronics
Bearing Type	Ball Bearing
Series	AFB
Voltage Rating	24 VDC
Dimensions	92x92x25.40 mm
Air Flow	57.9 CFM
Air Flow (m3)	1.62 m ³ /min
Static Pressure	0.221 in H2O (55.0 Pa)
Features	Locked Rotor Sensor
Fan Type	DC
Noise Level	38 dB(A)
Power Rating	3.12 W
Fan Speed	3200 RPM
Termination	3 Wire Leads
Operating Temperature	14 ~ 158°F (-10 ~ 70°C)
Approval Agency	CE, CSA, UL, VDE
Weight	0.218 lb (98.88 g)