

# TFA0412CN-BK1U Delta 12VDC 0.81A 40x40x28mm Axial Fan Datasheet



**Brand:** Delta

**SKU:** [946373886777](#)

**Category:** Axial & Centrifugal Fans

**Price:** **\$12.99**

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**E-mail:** [sales@equipspares.com](mailto:sales@equipspares.com)

**Web:** <https://www.equipspares.com>

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Product Page:

<https://www.equipspares.com/product/tfa0412cn-bk1u-delta-12vdc-0-81a-40x40x28mm-axial-fan>

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## Product Description

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The Delta TFA0412CN-BK1U is a specialized Axial Fan engineered for high-density server applications requiring substantial static pressure. This 40mm unit integrates a robust DC motor architecture with precision ball bearings, ensuring minimal friction and superior longevity under continuous thermal stress. Its aerodynamic impeller design maximizes volumetric efficiency, delivering concentrated airflow to penetrate dense heatsinks and restricted chassis zones. The fan features a 4-wire PWM control interface, enabling precise speed modulation based on real-time thermal telemetry. Constructed with industrial-grade materials to ensure structural rigidity, the TFA0412CN-BK1U effectively mitigates thermal impedance, making it a critical component for maintaining system stability in high-performance computing environments.

Model Number: TFA0412CN-BK1U

Brand: Delta Electronics

Product Type: DC Axial Fan

Rated Voltage: 12VDC

Voltage Range: 7.0 - 13.2 VDC

Rated Current: 0.81 A

Power Consumption: 9.72 W

Rated Speed: 17500 RPM

Bearing Type: Precision Ball Bearing

Max. Air Flow: 26.5 CFM (45.0 m<sup>3</sup>/h / 0.75 m<sup>3</sup>/min)  
Max. Static Pressure: 48.5 mmH<sub>2</sub>O (475 Pa / 1.91 inH<sub>2</sub>O)  
Dimensions: 40 x 40 x 28 mm  
Weight: 48 g  
Life Expectancy: 70,000 Hours at 40°C  
Speed Control: PWM (Pulse Width Modulation)  
Signal Output: Tachometer (Frequency Generator)  
Noise Level: 58.5 dBA  
Frame Material: Thermoplastic PBT (UL94V-0)  
Impeller Material: Thermoplastic PBT (UL94V-0)  
Ingress Protection: IP20  
Insulation Class: Class A  
Operating Temperature: -10°C to +70°C  
Storage Temperature: -40°C to +75°C  
Termination: 4-Wire Leads (Red +, Black -, Blue PWM, Yellow Tach)  
Mounting Orientation: Any  
Safety Certifications: UL, cUL, TUV, CE  
Protection: Locked Rotor Protection, Polarity Protection

The TFA0412CN-BK1U is primarily deployed in high-density computing environments such as 1U rackmount servers and blade chassis where space is limited but cooling demands are extreme. Its high static pressure capabilities make the TFA0412CN-BK1U ideal for forcing air through dense copper or aluminum heatsinks found in telecommunications equipment, network switches, and industrial automation controllers.

## Supplemental Images

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