



FFB0412VN-00 Delta

Brand: Delta

SKU: FFB0412VN-00

Category: DC Fans

URL: <https://www.fansco.com/item/ffb0412vn-00-delta/>

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Product Description

FFB0412VN-00 Delta 40x40x28mm 12VDC 0.83 A 23.66CFM 6.6W Ball Bearing 2.33"H₂O 4 Wire Leads Tach/PWM Axial Fan

The FFB0412VN-00 is a high-performance DC brushless axial flow fan by Delta Electronics, engineered for robust thermal management in extreme environments. Operating at a nominal voltage of 12V DC with a wide working range of 5.0–13.8V DC (starting voltage: 5.0V DC), it draws 0.55A average current (0.75A maximum, label safety current: 0.83A) for 6.60W average power consumption (9.00W maximum), featuring PWM control (0–5V DC, 25kHz recommended frequency) for adjustable speeds up to 18,000±10% RPM (20% minimum duty cycle for startup) and an FG signal (open collector output) for rotational speed feedback.

Aerodynamically, FFB0412VN-00 delivers 0.670 m³/min (23.66 CFM) maximum airflow (0.603 m³/min minimum at 0 static pressure) and 59.18 mmH₂O (2.33 inchH₂O) maximum static pressure (47.94 mmH₂O minimum at 0 airflow), with noise levels averaging 56.5 dB-A (60.5 dB-A maximum) measured 1 meter away in free air. Mechanically, the 40.0±0.2 mm (length) × 28.0±0.3 mm (width) fan features a UL 94V-0 flame-retardant plastic frame and impeller, double ball bearings for an L10 lifespan of 70,000 hours (40°C, 15–65% RH, continuous operation), and a 4-wire harness (UL1061 AWG#28: red/+, black/–, blue/FG, yellow/PWM) for easy integration.

Environmentally, it operates and stores between -40°C and +80°C, tolerating 5–90% RH (operating, non-condensing) and 5–95% RH (storage, non-condensing), with protective features including locked rotor protection (10-second auto-restart, 96-hour non-combustible under lock at nominal voltage) and polarity protection (reverse voltage tolerance).

Compliant with RoHS and UL Class A insulation (500V DC insulation resistance ≥10MΩ, 500V AC withstand voltage ≤5mA leakage), FFB0412VN-00 fan is ideal for high-speed, harsh-environment applications such as industrial electronics, server cooling, and automotive systems, requiring proper installation (avoiding impeller/cable stress, using fan guards) and an external ≥4.7μF capacitor for stable parallel operation.

Technical Specifications

| Attribute | Value |
|-----------|-------|
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| Part Number | FFB0412VN-00 |
| Dimensions | 40x40x25 mm |
| Manufacturer | Delta Electronics |
| Fan Type | DC |
| Category | Axial |
| Current Rating | 0.83 A |
| Operating Voltage | 5 ~ 13.8 VDC |
| Material Frame | Plastic |
| Material Blade | Plastic |
| Lifetime @ Temp | 70000 Hrs @ 40°C |
| Voltage Rating | 12 VDC |
| Fan Speed | 18000 RPM |
| Noise Level | 56.5 dB(A) |
| Air Flow | 23.66 CFM |
| Termination | 4 Wire Leads |
| Subcategory | DC axial fan |
| Bearing Type | Ball Bearing |
| Features | PWM Control Speed Sensor (Tach) |



