L80T12NS1A7-57T07 Nidec 12VDC 80x80x25mm Axial Fan Datasheet

Brand: Nidec

SKU: 809462012319

Category: Axial & Centrifugal Fans

Price: **$23.99**

E-mail: sales@equipspares.com

Web: https://www.equipspares.com

Product Page:
https://www.equipspares.com/product/l80t12ns1a7-57t07-nidec-12vdc-80x80x25mm-axial-fan

Product Description

Nidec L80T12NS1A7-57T07 is a 12VDC 80x80x25mm Axial Fan optimized for high-density thermal management in space-constrained enclosures. Engineered with a brushless DC motor and a precision dual ball bearing architecture, this unit minimizes thermal impedance while maintaining structural rigidity under continuous duty cycles. The aerodynamic impeller design is specifically tuned to deliver a robust 0.38A current draw, translating to high-velocity airflow and significant static pressure to overcome internal system resistance. This model integrates advanced 4-wire PWM speed control, allowing for dynamic RPM adjustments to balance acoustic output with cooling demands in mission-critical hardware.

Model Number: L80T12NS1A7-57T07
Brand: Nidec
Product Type: Axial Fan
Rated Voltage: 12 VDC
Voltage Range: 7.0 - 13.8 VDC
Rated Current: 0.38 A
Power: 4.56 W
Rated Speed: 4500 RPM
Bearing Type: Dual Ball Bearing
Max. Air Flow: 52.5 CFM (89.2 m^3/h)

Max. Static Pressure: 6.85 mmH_2O (67.2 Pa)
Dimensions: 80 x 80 x 25 mm
Weight: 85 g
Life Expectancy: 70,000 Hours at 40°C
Speed Control: PWM (Pulse Width Modulation)
Feedback: Tachometer / Frequency Generator
Noise Level: 42.0 dB(A)
Housing Material: Thermoplastic PBT (UL94V-0)
Blade Material: Thermoplastic PBT (UL94V-0)
Termination: 4-Lead Wires
Operating Temperature: -10 to +70 °C
Storage Temperature: -40 to +75 °C
Protection Features: Locked Rotor Protection, Reverse Polarity Protection
Certifications: UL, TUV, CE, RoHS

L80T12NS1A7-57T07 Applications

1. 2U Rackmount Servers: The 25mm depth and high static pressure profile make it an ideal replacement fan for overcoming the high impedance of densely packed PCB components.
2. Industrial VFD Enclosures: Utilizes PWM control to provide demand-based cooling for variable frequency drives, ensuring thermal stability in fluctuating load environments.
3. Network Switch Gear: Optimized for low-vibration operation to protect sensitive optical transceivers while maintaining consistent volumetric airflow." airflow.

Supplemental Images