D1751S48B9CP-83 Nidec 48VDC 172x51mm 2.3A Axial Fan Datasheet

Brand: Nidec

SKU: 897583221147

Category: Axial & Centrifugal Fans

Price: **$206.99**

E-mail: sales@equipspares.com

Web: https://www.equipspares.com

Product Page:
https://www.equipspares.com/product/d1751s48b9cp-83-nidec-48vdc-172x51mm-2-3a-axial-fan

Product Description

The Nidec D1751S48B9CP-83 is a high-performance industrial axial fan engineered specifically for heavy-duty thermal management in power conversion systems. Utilizing a robust DC motor architecture housed within a die-cast aluminum frame, this unit offers superior structural rigidity and effective vibration damping under high-speed operation. The aerodynamic impeller design is optimized to deliver high-velocity airflow while overcoming significant system impedance, making it highly effective for dense component cooling. Featuring a precision dual ball bearing system, the D1751S48B9CP-83 ensures exceptional longevity and operational stability, significantly reducing thermal impedance in critical electronic enclosures.

Model Number: D1751S48B9CP-83
Brand: Nidec (Nidec Servo)
Product Type: DC Axial Fan
Rated Voltage: 48 VDC
Voltage Range: 36.0 - 56.0 VDC
Rated Current: 2.30 A
Input Power: 110.4 W
Rated Speed: 5300 RPM
Bearing Type: Dual Ball Bearing
Max. Air Flow: 310.0 CFM (526.7 m^3/h / 8.77 m^3/min)

Max. Static Pressure: 28.5 mmH_2O (279.5 Pa / 1.12 inH_2O)
Dimensions: 172 mm x 150 mm x 51 mm
Frame Style: Side Cut (Oval)
Frame Material: Die-Cast Aluminum
Impeller Material: Reinforced Plastic (UL94V-0)
Weight: 850 g
Life Expectancy: 70,000 Hours at 40°C
Termination: 4-Wire Leads
Speed Control: PWM / Tachometer Output
Operating Temperature: -10°C to +70°C
Storage Temperature: -40°C to +70°C
Ingress Protection: IP20
Certifications: UL, cUL, TUV, CE, RoHS

Designed for aggressive cooling requirements, the D1751S48B9CP-83 is extensively used in variable frequency drives (VFDs), solar inverters, and high-capacity power supplies where heat dissipation is critical. Its high-pressure capabilities make it an ideal solution for cooling server racks, telecommunication base stations, and CNC control cabinets. The D1751S48B9CP-83 provides reliable continuous operation in industrial automation environments, protecting sensitive electronics from thermal overload and ensuring system uptime in medical devices and railway applications.

Supplemental Images