

DS05020R12U AVC 12V 0.30A 50mm 5020 DC Axial Fan

SKU: DS05020R12U

Price: \$9.99

Categories: Fans

Tags: AVC

Product Link:

<https://www.elecspares.com/product/ds05020r12u-avc-12v-0-30a-50mm-5020-dc-axial-fan/>

Product Description

The AVC DS05020R12U is a high-velocity DC axial fan, commonly referred to as a "5020" size, engineered for intensive thermal management in space-constrained, high-impedance environments. This 50 x 50 x 20 mm unit features a specialized Hydraulic Bearing system and a 5-blade high-torque impeller optimized for maximum air pressure. Operating at a nominal 12 VDC with a 0.30 A current draw, it achieves a powerful 6000 RPM rotational speed. The 4-wire configuration provides a sophisticated interface including both a Speed Sensor (FG) and Pulse Width Modulation (PWM) input for dynamic, demand-based speed control. Built with a brushless DC motor and advanced electronic protection, this fan is a critical component for 1U server modules, high-density power supplies, and industrial communication controllers requiring precise, high-velocity air displacement.

DS05020R12U Fan Parameters

Manufacturer: AVC (Asia Vital Components)

Model Number: DS05020R12U

Industry Size Code: 5020

Type: DC axial fan

Bearing Type: Hydraulic Bearing (Hydro-dynamic)

Nominal Voltage: 12 VDC

Voltage Range: 10.8 - 13.2 VDC

Starting Voltage: 10.8 VDC

Dimensions: 50 x 50 x 20 mm

[Electrical Data]

Input Power: 3.60 W

Nominal Current: 0.30 A

Max. Current: 0.38 A

Nominal Speed: 6000 RPM (Tolerance $\pm 10\%$)

Motor Design: Brushless DC Motor, 4-pole

Signal Output: FG (Frequency Generator/Tachometer)

Speed Control: PWM (Pulse Width Modulation)

Motor Protection: Auto Restart, Polarity Protection, Locked Rotor Protection

Insulation Class: Class A (105 °C)

Insulation Resistance: 10M ohm at 500 VDC

Termination: 4-Lead wires (UL1007, AWG#26, Red/Black/White/Blue)

[Performance & Acoustics]

Max. Air Flow: 18.25 CFM (31.01 m³/h / 0.52 m³/min)

Max. Static Pressure: 6.85 mmH₂O (67.18 Pa / 0.27 inH₂O)

Sound Pressure Level: 39.5 dB(A)

Number of Blades: 5

Direction of Rotation: Counter-clockwise (viewed toward impeller)

Airflow Direction: Intake over struts

[Materials & Construction]

Frame Material: Thermoplastic PBT (UL94V-0)

Impeller Material: Thermoplastic PBT (UL94V-0)

Installation Position: Any

Degree of Protection: IP54

[Reliability & Safety Standards]

Min. Ambient Temperature: -10 °C

Max. Ambient Temperature: 70 °C

Life Expectancy (L10): 50,000 hours at 40 °C

Standard Compliance: IEC 60950-1, EN 61000-6-1

Approval Agency: UL, TUV, CE, RoHS

Application

The AVC DS05020R12U axial fan is used in 1U server chassis, compact power supplies, network routers, industrial IPC controllers, and medical monitoring devices.

Product Images



Scan for product details:

