

109P0405H901 Sanyo Denki

Brand: Sanyo Denki SKU: 109P0405H901

Category: DC Fans

URL: https://www.fansco.com/item/109p0405h901-sanyo-denki/

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Product Description

109P0405H901 Sanyo Denki San Ace 40 DC 5VDC 40x40x10mm 5.3CFM Ball 25dB(A) 800mW 6200RPM 3 Wire Leads Locked Rotor Protection Speed Sensor (Tach) Tubeaxial fan

The Sanyo Denki 109P0405H901 is a high-performance DC axial fan from the San Ace series, renowned for its reliability in cooling applications. This report, based on available online specifications and distributor data, provides a comprehensive overview of its technical specifications, design features, and potential applications, ensuring a thorough understanding for users seeking efficient cooling solutions.

Performance Analysis

Operating at 5V DC, the 109P0405H901 consumes only 0.8W, with a current draw of 0.16A, highlighting its low-power design suitable for battery-operated or energy-efficient systems. At 6200 RPM, it delivers a maximum airflow of 0.15 m³/min (5.3 CFM) and a static pressure of 41.2 Pa (0.165 inch H2O), making it effective for cooling in medium-demand scenarios. Its noise level of 25 dB(A) ensures quiet operation, ideal for noise-sensitive environments such as offices or home electronics.

The fan's ball bearing construction enhances durability, with an expected lifespan of 40,000 hours at 60° C and extending to 70,000 hours at 40° C, as per RS Components and TME data. This longevity is crucial for continuous operation in industrial settings. The operating temperature range of -10°C to +60°C, with a storage range of -30°C to +70°C, ensures reliability across various climatic conditions.

Design and Functional Features

The 109P0405H901 incorporates several advanced features for enhanced safety and performance:

Pulse Sensor: Includes a pulse sensor for speed monitoring, enabling real-time performance tracking and predictive maintenance, as noted on the SANYO DENKI product page.

Locked Rotor Protection: Protects against damage from blockages or mechanical failures, enhancing electrical safety, as mentioned in RS Components listings.

Reverse Polarity Protection: Prevents damage from incorrect wiring, a feature highlighted in distributor descriptions.

Flame-Retardant Materials: Both frame and impeller are made from UL94V-0 rated plastic, ensuring safety in case of fire, as confirmed by TME and RS Components.

Ribbed Design: Reduces vibration and improves stability during high-speed operation, noted in official specifications.

Notably, it does not support PWM control, operating at a fixed speed, which is suitable for applications not requiring dynamic speed adjustment.

Certifications and Compliance

The fan is UL recognized, complies with CSA and EN standards, and adheres to the RoHS directive, ensuring it meets international safety and environmental regulations. These certifications, detailed on the SANYO DENKI site and distributor pages, make it a trustworthy choice for global markets.

Applications

Based on distributor insights and official documentation, the 109P0405H901 is ideal for:

Electrical Cabinets and Enclosures: Provides efficient cooling to prevent overheating in control panels.

Server Racks: Suitable for small servers and network equipment, where space and noise are concerns.

Factory Automation Equipment: Ensures reliable cooling in industrial automation systems.

Telecommunications Equipment: Supports thermal management in compact telecom devices, as suggested by RS Components and TME applications.

Its compact size, low noise, and high efficiency make it particularly valuable in environments requiring silent operation and space efficiency.

Comparison and Advantages

Compared to similar models, such as the 109P0405H902 (noted in RS Components), the 109P0405H901 offers a balance of airflow and noise, with a slight edge in power efficiency at 0.8W. While some competitors may provide higher airflow, they often come with increased noise or power consumption. Its expected lifespan and multiple safety certifications position it as a reliable, cost-effective solution for cooling needs.

Installation and Usage Recommendations

For optimal performance, users should refer to installation guidelines on the SANYO DENKI product page, ensuring proper ventilation and mounting. The 3-wire lead design (power and sensor) facilitates integration with systems requiring speed monitoring, enhancing usability in automated setups.

Conclusion

The Sanyo Denki 109P0405H901 is a compact, efficient, and reliable DC axial fan, ideal for cooling applications in space-constrained, noise-sensitive environments. Its low power consumption, long lifespan, and compliance with safety standards make it a versatile choice for electrical cabinets, server racks,

and telecom equipment, supported by detailed specifications from official and distributor sources.

Technical Specifications

Attribute	Value
Part Number	109P0405H901
Manufacturer	Sanyo Denki
Fan Type	DC
Series	San Ace 40
Voltage Rating	5 VDC
Dimensions	40x40x10 mm
Air Flow	5.3 CFM
Air Flow (m3)	0.148m³/min
Static Pressure	0.165 in H2O (41.1 Pa)
Bearing Type	Ball Bearing
Features	Locked Rotor Protection, Speed Sensor (Tach)
Noise Level	25 dB(A)
Power Rating	800 mW
Fan Speed	6200 RPM
Termination	3 Wire Leads
Operating Temperature	14 ~ 140°F (-10 ~ 60°C)
Approval Agency	CSA, TUV, UL
Weight	0.042 lb (19.05 g)
Subcategory	Tubeaxial





