San Ace 40 9CRJ type

Counter Rotating Fan

Features

High Static Pressure and High Airflow

This fan delivers a maximum static pressure of 2400 Pa and a maximum airflow of 1.06 m^3/min.
Compared with our current model,* the maximum static pressure has increased by 1.4 times and the maximum airflow has increased by 1.1 times.
This fan can efficiently cool high-density equipment that is hard to ventilate, contributing to system downsizing.

Energy Saving

Power consumption has been reduced by approximately 20% compared with the current model.*
The PWM control function enables the control of fan speed, contributing to energy saving.

* *San Ace 40* 9CRH type 40 × 40 × 56 mm Counter Rotating Fan (model: 9CRH0412P5J001).

40 × 40 × 56 mm

Specifications

The models listed below **have pulse sensors with PWM control function.**

Model no.	Rated voltage [V]	Operating voltage range [V]	PWM duty cycle* [%]	Rated current [A]	Rated input [W]	Rated speed [min^{-1}] Inlet	Outlet	Max. airflow [m^3/min]	[CFM]	Max. static pressure [Pa]	[inchH_2O]	SPL [dB(A)]	Operating temperature [°C]	Expected life [h]
9CRJ0412P5J001	12	10.8 to 12.6	100	3.1	37.2	36200	32000	1.06	37.4	2400	9.64	72	-20 to +70	30000/60°C (53000/40°C)
			20	0.1	1.2	4500	4000	0.11	3.9	40	0.16	28		

* PWM input frequency is 25 kHz; models without specifications at 0% PWM duty cycle have zero fan speed at 0%.

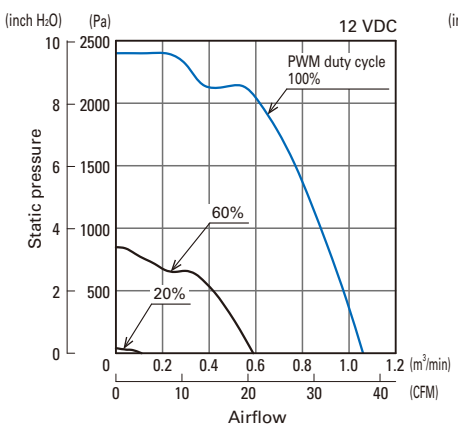
Models with the following sensor specifications are also available as options: Without sensor Lock sensor

Common Specifications

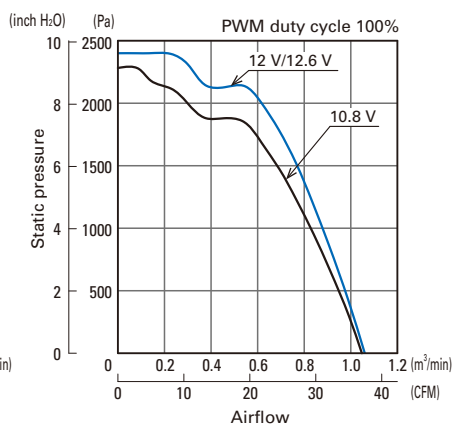
- ☐ Material ····· Frame: Plastic (Flammability: UL 94V-0), Impeller: Plastic (Flammability: UL 94V-0)
- ☐ Expected life ····· Refer to specifications
  (L10 life: 90% survival rate for continuous operation in free air at 60˚C, rated voltage)
  Expected life at 40°C is for reference only.
- ☐ Motor protection function ····· Locked rotor burnout protection, Reverse polarity protection
- ☐ Dielectric strength ····· 50/60 Hz, 500 VAC, for 1 minute (between lead wire conductors and frame)
- ☐ Insulation resistance ····· 10 MΩ or more with a 500 VDC megger (between lead wire conductors and frame)
- ☐ Sound pressure level (SPL) ····· At 1 m away from the air inlet
- ☐ Operating temperature ····· Refer to specifications (Non-condensing)
- ☐ Storage temperature ····· -30 to +70°C (Non-condensing)
- ☐ Lead wire ····· Inlet ⊕ Red ⊖ Black (Sensor) Yellow (Control) Brown
  Outlet ⊕ Orange ⊖ Gray (Sensor) Purple (Control) White
- ☐ Mass ····· 110 g

Airflow - Static Pressure Characteristics

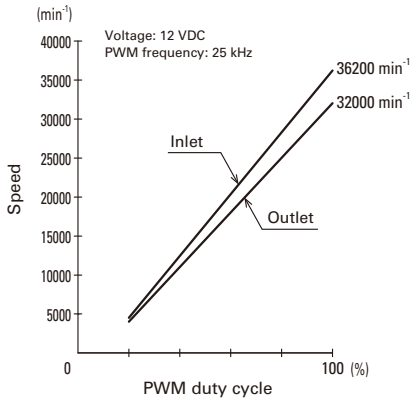
• PWM duty cycle



• Operating voltage range

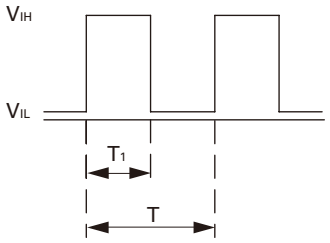


PWM Duty - Speed Characteristics Example



PWM Input Signal Example

Input signal waveform



V_{IH} = 2.8 to 5.25 V V_{IL} = 0 to 0.4 V

PWM duty cycle (%) = $\frac{T_1}{T} \times 100$ PWM frequency 25 (kHz) = $\frac{1}{T}$

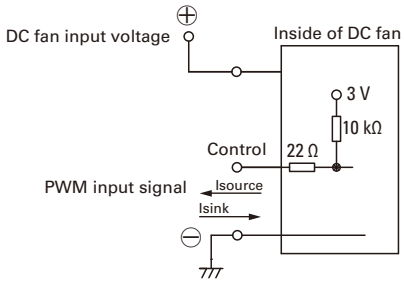
Current source (Isource) = 2 mA max. (when control voltage is 0 V)

Current sink (Isink) = 2 mA max. (when control voltage is 5.25 V)

Control terminal voltage = 5.25 V max. (when control terminal is open)

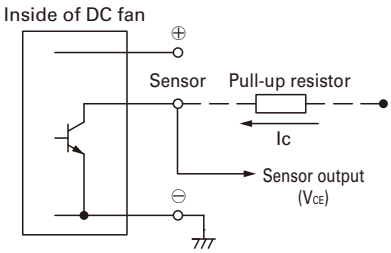
When the control terminal is open,
fan speed is the same as when PWM duty cycle is 100%.
Either TTL input, open collector or open drain can be used for PWM control input signal.

Example of Connection Schematic



Specifications for Pulse Sensors

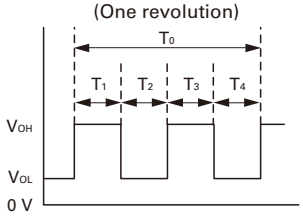
Output circuit: Open collector



V_{CE} = +12.6 V max.
Ic=5 mA max. [V_{OL}=V_{CE} (SAT)=0.6 V max.]

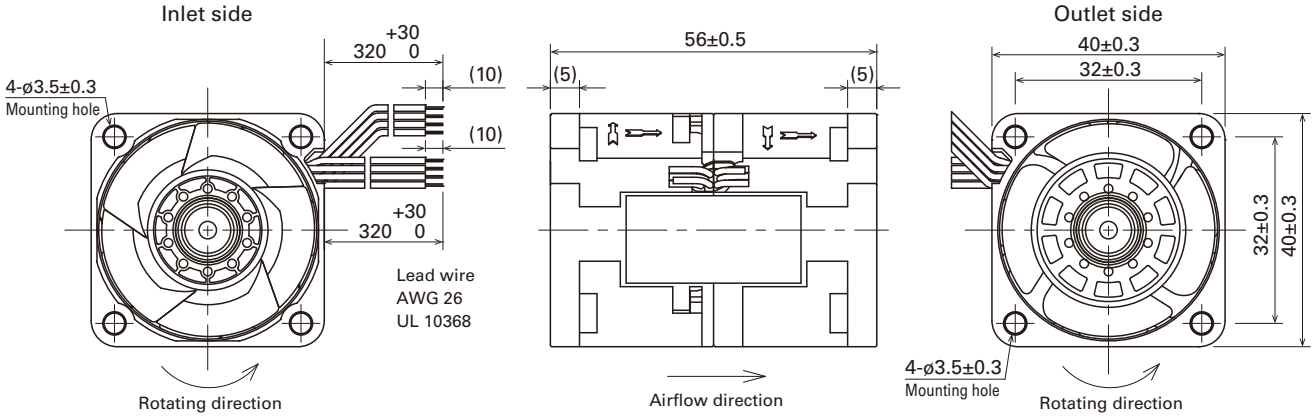
Output waveform (Need pull-up resistor)

In case of steady running



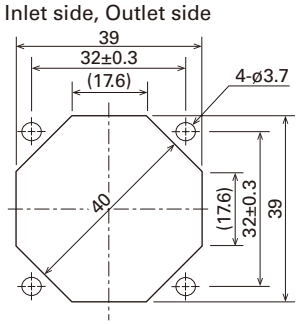
$T_{1\ to\ 4} \fallingdotseq$ (1/4) T_0
$T_{1\ to\ 4} \fallingdotseq$ (1/4) T_0=60/4N (s)
N=Fan speed (min^{-1})

Dimensions (unit: mm)



Reference Dimensions of Mounting Holes and Vent Opening (unit: mm)

Inlet side, Outlet side



Notice

- Please read the "Safety Precautions" on our website before using the product.
- The products shown in this catalog are subject to Japanese Export Control Law. Diversion contrary to the law of exporting country is prohibited.
- For protecting fan bearings against electrolytic corrosion near strong electromagnetic noise sources, we provide effective countermeasures such as Electrolytic Corrosion Proof Fans and EMC guards. Contact us for details.

SANYO DENKI CO.,LTD. 3-33-1 Minami-Otsuka, Toshima-ku, Tokyo 170-8451, Japan TEL: +81 3 5927 1020 https://www.sanyodenki.com

CATALOG No. C1109B001 '20.8

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for DC Fans ***category:***

Click to view products by Sanyo Denki ***manufacturer:***

Other Similar products are found below :

F1238H24B-FHR F1238X24B1-FSR-TTL PMD1204PBB1-A (2).GN AUB0612L F6025X12B1-RHR G4020H05B2-RSR-EM 4318/12T AUB0912H-F00 3412N/2ME W2G110-AM39-01 USTF501005HW 8412GLV 8412NGL-12 6448-384 3258JH 4114N/17-251 4412F/2D OD127AP-28HTB 424JMU 3110KL-05W-B50-G00 1608KL-04W-B29-L00 EF40101BX-1000U-G99 4414/2HH 512F/2P-549 4112 N/12GL-175 9GA0924L4021 9GA0924M4021 9GA0924M4011 9GA0912M4D011 9GA0924W4D01 9GA0912F4021 9GA0912H4D011 9GA0824L20021 9GA0824L20011 9GA0812A2002 9GA0812B2D001 9GA0812L20021 9WP1248M1021 9GA0812A2D001 9GA0824L2D001 9GA0924W4D011 9GA0912W402 9GA0912M402 9GA0824B2D001 9GA0824A20021 9GA0912W4021 9GA0924W402 9GA0812L2D0011 9GA0812A20021 9GA0824L2001