# **Brushless** DC Fans & Blowers

# *E0720L series* 72 × 75 × 20 mm

dB

41

• The characteristics are the values at rated voltage (12 V), and normal temperature and humidity.

Speed

min<sup>-1</sup>

4200

12

• Figures in the table are average measured values. Please request the product delivery specification when preparing a purchase specification

• The life expectancy of E07201 -8 speed products at rated voltage and in continuous operation is 18,000 hours at 60 °C. (25,000 hours for other products)

Voltage Spec. V

4.5-12.8

Rating Start up Voltage Range Operating Range

10.8-12.8

Current mA

Rating Starting

620

300

Model Code

E0720L12B8AZ-00

Operating

Temp. Range℃

-20 ~ +70

Standard specification

Max. Airflow Max. Static Pressure Noise

Ра

265

General specification

inH<sub>2</sub>O

1.07

m<sup>3</sup>/min CFM

0.31

10.9

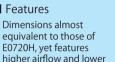
# F072



72×75×20  $(2.8" \times 3.0" \times 0.8")$ Max. airflow: 0.31 m 3/min Max. static pressure: 265 Pa Mass: 50 g

#### Features

- equivalent to those of E0720H, yet features higher airflow and lower noise.
- that prioritizes high airflow over high static pressure.



- Suitable for equipment

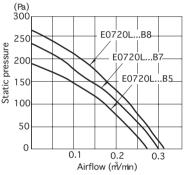
### Fan model code E0720L12B8AZ-00



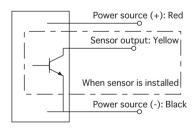
Ν	laterials Used	Impeller: ABS and PBT synthetic resins Bearing: Both side shielded ball bearing
N	lotor	Brushless DC motor, Protection type: Current shut off by detecting lock state, automatically reset
С	ommon Elec. Spec.	See pages G-11, G-12, G-13.
S	tandard Carton	150 to a carton of (450 x 380 x 295) mm, mass 8 kg

Venturi: ABS and PBT synthetic resins

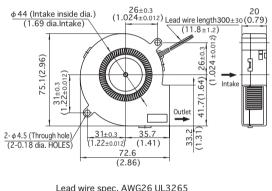
# Standard airflow and static pressure characteristics (At rated voltage) [By double chamber method]



# Wiring connection diagram



# External dimensions in mm (inches) Lead wire type



Lead wire spec. AWG26 UL3265 Color (+) Red (-) Black

- NIDEC SERVO can meet many of your requirements for customization, such as special connectors, other sensors not listed above, variable speed specifications, and other modifications. Please contact NIDEC SERVO during your product planning and development stage.
- The listed products are registered in the following overseas standards files, UL/cUL: E48889, TUV: R50004410



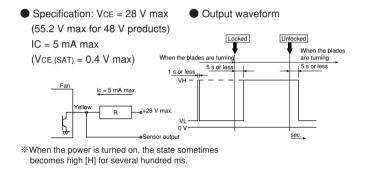
# DC axial fans & blowers with sensors

The DC fans and blowers of NIDEC SERVO have a function to send an alarm signal when the fan motor revolutions slow down. Several systems are used to cut off the system power supply by this alarm signal, with three types of sensors available. Select the right type of sensor in accordance with the purpose of use. The lead wire for the sensor is yellow. The output type is an open collector output for all three types.

## Sensor type

### 1. Lock detection type (Product code: S)

The output signal indicates an [L] state (transistor is ON) while the propeller is rotating, changing to an [H] state (transistor is OFF) less than five seconds after the propeller stops rotating. The propeller automatically restarts operation within five seconds when the lock is unlocked. ([H]  $\rightarrow$  [L] 5 s). If the pull-up voltage is live, the [H] state (transistor is OFF) will engage in less than five seconds, even when the power is turned off.



#### 2. Pulse output type (Product code: P)

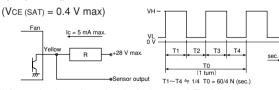
A rectangular wave of two pulses will be output for each turn of the propeller while the propeller is rotating, outputting two types of signal depending on the propeller position when the propeller is locked. (See the note below %)

Specification: VCE = 28 V max Output waveform (55.2 V max for 48 V products)

IC = 5 mA max







\*Output signal waveform when the fan is stopped: The following two types of waveform are output, depending on the blade position when the propeller is stopped: Pulse outputs of High - constant or restart timing (0.05 Hz to 2 Hz).

# 3. Speed detection type (Product code: Q)

The output signal indicates the [H] state when the propeller revolutions are slower than the preset speed, changing to the [L] state when the propeller revolutions exceed the reset speed.

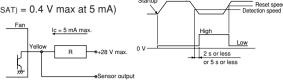
[Products with a reversed output waveform are also available, suitable for a wired OR connection when several fans are installed. Contact NIDEC SERVO for further information. {Former code: SQ, new code (15 - digit code products): R}]

Specification: VCE = 28 V max (55.2 V max for 48 V products) IC = 5 mA max

Output waveform

Normal sp

(VCE(SAT) = 0.4 V max at 5 mA)



Startun

Note: The output waveform for type SQ (R) will be reversed. The speed setting for the alarm output is about half the rated speed. For more detailed information, please request a product delivery specification from NIDEC SERVO.

Fans &

Blowers

Contact Commercial Secteur OUEST +33 (0)134 947 710 - Mob : +33 (0) 622 920 278 Direct Contact Commercial Secteur EST : onelectro Direct : +33 (0)134 947 711 - Mob : +33 (0) 680 923 780



RD 11 - BP20 – 78650 Beynes – France Tel : +33 (0) 134 947 700 - Fax : +33 (0) 134 875 340 www.alcvonelectronique.fr