### **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.

Standard specification

Max. Airflow Max. Static Pressure Noise

Ра

265

inH<sub>2</sub>O

1.07

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

10.9

0.31

# 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

- **Dimensions almost** equivalent to those of E0720H, yet features higher airflow and lower noise.
- Suitable for equipment that prioritizes high airflow over high static pressure.

# Fan model code

E0720L12B8AZ-00

# • The life expectancy of E0720L-8 speed products at rated voltage and in continuous operation is 18,000 hours at 60 °C. (25,000 hours for other products) General specification

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

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

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

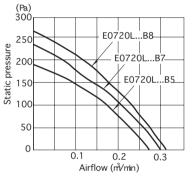
E0720L12B8AZ-00

Operating

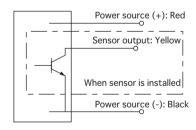
Temp. Range℃

-20 ~ +70

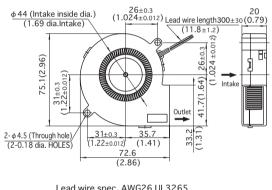
## Standard airflow and static pressure characteristics (At rated voltage) [By double chamber method]



#### Wiring connection diagram



#### External dimensions in mm (inches) Lead wire type



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

**G-40** 

- Our company 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 Our company during your product planning and development stage.
- The listed products are registered in the following overseas standards files, UL/cUL: E48889, TUV: R50004410



Blowers with Sensors

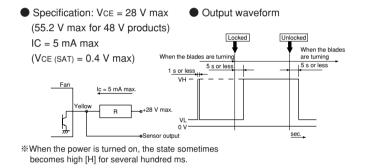
#### DC axial fans & blowers with sensors

The DC fans and blowers of Our company 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.



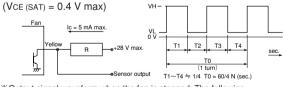
#### 2. Pulse output type (Product code: P)

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)

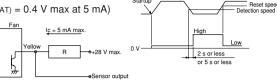
The output signal indicates the [H] state when the propeller revolutions are slower than the preset speed, changing to the [L] state when the propeller revolutions exceed the reset speed.

[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}1

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

Normal sp

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



Startun

Output waveform

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 Our company