E1540H series 150 × 152 × 40 mm

Super Silent Blowers

E1540H

150×152×40
(5.9"×6.0"×1.6")
Max. airflow: 2.0 m³/min
Max. static pressure: 430 Pa
Mass: 380 g

Fan model code

E1540H12B5AZ-00
E1540H12B7AS-00
E1540H12B7AZ-00
E1540H24B5AZ-00
E1540H24B7AP-00
E1540H24B7AS-00
E1540H24B7AZ-00

Standard specification

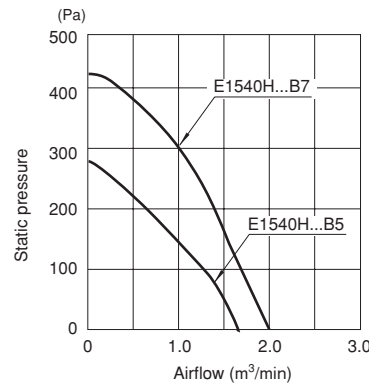| Max. Airflow		Max. Static Pressure		Noise	Speed	Input	Voltage Spec. V		Current mA		Model Code	Operating Temp. Range ℃
m³/min	CFM	Pa	inH₂O	dB	min⁻¹	W	Rating	Operating Range	Rating	Starting		
2.0	71	430	1.73	56	2700	19.4	12	8.4-13.8	1600		E1540H12B7AZ-00	-20 ~ +70
						17.8	24	16.8-27.6	740		E1540H24B7AZ-00	
1.65	58	270	1.09	51	2200	13	12	8.4-13.8	1100		E1540H12B5AZ-00	
							24	12-27.6	540		E1540H24B5AZ-00	

● Figures in the table are average measured values. Please request the product delivery specification when preparing a purchase specification.
● The characteristics are the values at rated voltage (12 V or 24 V), and normal temperature and humidity.
● The life expectancy of E1540H-7 speed products at rated voltage and in continuous operation is 30,000 hours at 60℃. (40,000 hours for other products)

General specification

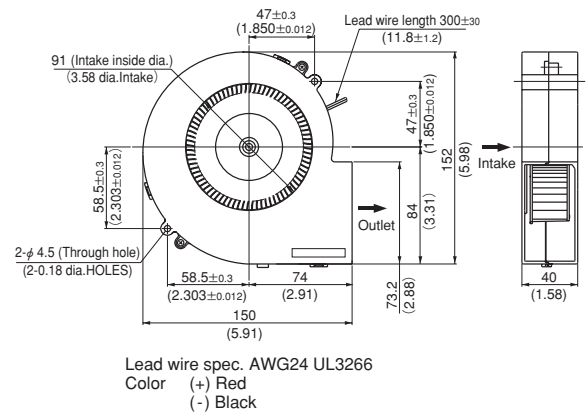| Materials Used	Venturi: ABS and PBT synthetic resins Impeller: ABS and PBT synthetic resins Bearing: Both side shielded ball bearing
Motor	Brushless DC motor, Protection type: Overcurrent detection and automatic resetting by current limiting
Common Elec. Spec.	See pages G-11, G-12, G-13.
Standard Carton	16 to a carton of (450 x 380 x 220) mm, mass 7 kg

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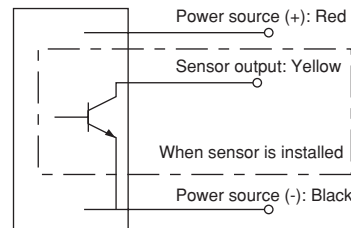
[By double chamber method]

External dimensions in mm (inches)

● Lead wire type

Lead wire spec. AWG24 UL3266
Color   (+) Red
           (-) Black

Wiring connection diagram

Power source (+): Red
Sensor output: Yellow
When sensor is installed
Power source (-): Black

Super silent blower with sensor

Rated Vol.	Model Code
12 V	E1540H12B7AS-00
24 V	E1540H24B7AS-00 E1540H24B7AP-00

● 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
● 3D data is also available at our web2-CAD site (www.cadenas.co.jp).

Fans & Blowers

Axial
DC fans
Centrifugal
Silent
Axial
Centrifugal
Option

Fans & Blowers

Axial

DC fans

Centrifugal

Silent

Axial
AC fans

Centrifugal

Option

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] → [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.

● Specification: V_{CE} = 28 V max
(55.2 V max for 48 V products)
I_C = 5 mA max
($V_{CE (SAT)}$ = 0.4 V max)

● Output waveform
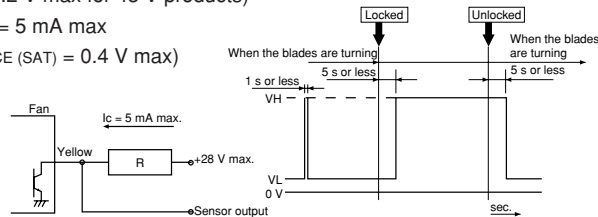
※When the power is turned on, the state sometimes becomes high [H] for several hundred ms.

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: V_{CE} = 28 V max
(55.2 V max for 48 V products)
I_C = 5 mA max
($V_{CE (SAT)}$ = 0.4 V max)

● Output waveform

$T1 \sim T4 \fallingdotseq 1/4$ $T0 = 60/4$ N (sec.)
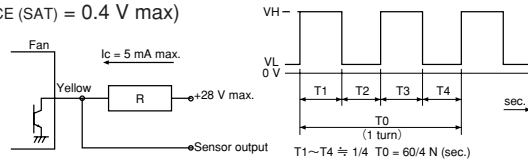
※Output signal waveform when the fan is stopped: The following two types of waveform are output, depending on the blade position when the propeller is stopped:
Pulse outputs of High - constant or restart timing (0.05 Hz to 2 Hz).

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: V_{CE} = 28 V max
(55.2 V max for 48 V products)
I_C = 5 mA max
($V_{CE (SAT)}$ = 0.4 V max at 5 mA)

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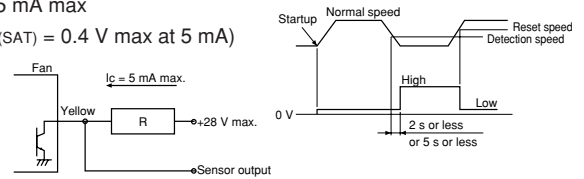
Note: The output waveform for type SQ (R) will be reversed.
The speed setting for the alarm output is about half the rated speed.
For more detailed information, please request a product delivery specification from NIDEC SERVO.