Brushless DC Fans & Blowers

E1027H series 97 × 95 × 25 mm

Super Silent Blowers
E1027H

97×95×25
(3.8"×3.7"×1.0")
Max. airflow: 0.78 m³/min
Max. static pressure: 520 Pa
Mass: 120 g (〜7), 125 g (〜A)

Fan model code

E1027H12B7AZ-00

E1027H12BAAZ-00

■ Standard specification

Max. Airflow		Max. Static Pressure		Noise	Speed	Voltage Spec. V		Current mA		Model Code	Operating
m³/min	CFM	Pa	inH₂O	dB	min⁻¹	Rating	Operating Range	Rating	Starting		Temp. Range ℃
0.78	28	520	2.09	55	5000	12	8.4-13.8	1000	2200	E1027H12BAAZ-00	-20 〜 +60
0.57	20	315	1.27	47	3600	12	5-13.2	550	1670	E1027H12B7AZ-00	-20 〜 +70

● 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), and normal temperature and humidity.
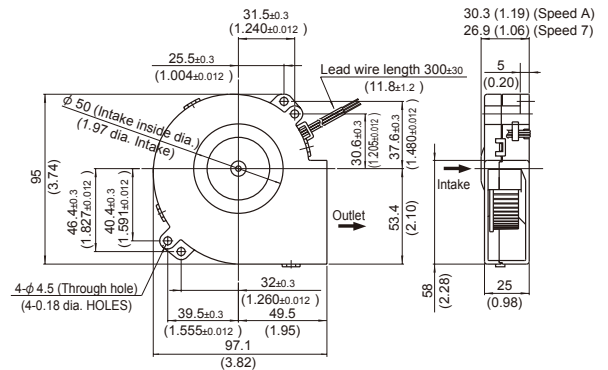
■ General specification

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 airflow and static pressure characteristics (At rated voltage)
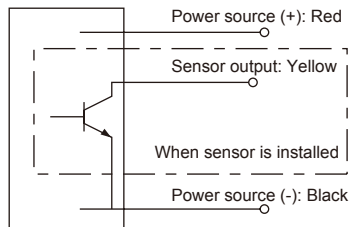[By double chamber method]
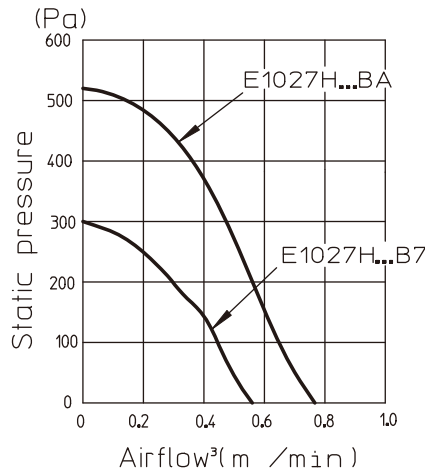
■ External dimensions   in mm (inches)
● Lead wire type

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

■ Wiring connection diagram

Power source (+): Red

Sensor output: Yellow

When sensor is installed

Power source (-): Black

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

Fans & Blowers

Axial

DC fans

Centrifugal

Silent

Axial

Centrifugal

Option

Sensor Spec. ▶ G-15

G-45

Technical Data

Fans & Blowers

Axial

DC fans

Centrifugal

Silent

Axial
AC fans

Centrifugal

Option

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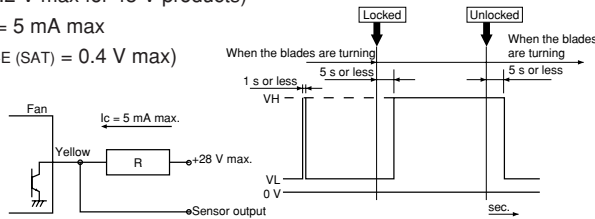
※When the power is turned on, the state sometimes becomes high [H] for several hundred ms.

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

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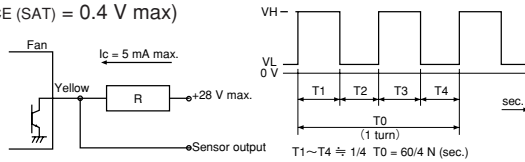
※Output signal waveform when the fan is stopped: The following two types of waveform are output, depending on the blade position when the propeller is stopped:
Pulse outputs of High - constant or restart timing (0.05 Hz to 2 Hz).

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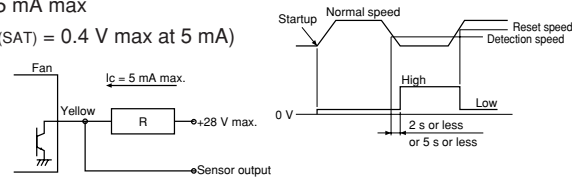
Note: The output waveform for type SQ (R) will be reversed.
The speed setting for the alarm output is about half the rated speed.
For more detailed information, please request a product delivery specification from us.