

**Specification**

Flat Fan C5010H24BPLB2a-7



**General Information**

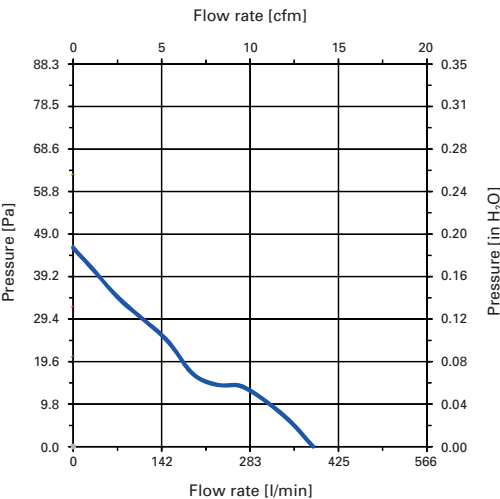
Item	
Product type	Flat fan with integrated electronic motor driver
Part no.	C5010H24BPLB2a-7
Customer	N/A
Project no.	N/A
Modification	Standard product

**Features**

- Static pressure 46 Pa, freeflow 380 l/min
- 24 V<sub>DC</sub> brushless DC-motor
- Frequency Generator
- Auto-Restart



**Performance**



## Technical Data

Material	Valuec
Frame	Thermoplastic PBT (GF 30%), class UL94-V0
Impeller	Thermoplastic PBT (GF 15%), class UL94-V0
Lead wire	UL1007, AWG 26, 280±10mm, red (+), black (-), yellow (FG)

Item	Value	Test Condition
Rated voltage	24 V <sub>DC</sub>	Measured by multi-meter with +/- 1 % error
Operating voltage	15-27 V <sub>DC</sub>	Measured by multi-meter with +/- 1 % error
Rated speed	6000 rpm	Average reading, 5 minutes after power up (+/- 10 %)
Input current	0.060 A	At rated voltage and free flow
Input power	1.44 W	At rated voltage and free flow
Free flow	380 l/min (13.57 CFM)	At rated voltage and zero static pressure (+/- 10 %)
Static pressure	46 Pa (0.18 in-H <sub>2</sub> O)	At rated voltage and zero air flow
Operating temperature	-10 to 70 °C	At 45-65 % humidity
Storage temperature	-40 to 90 °C	After 100 h storage keep for 24 h at 23-25 °C The product must maintain original specifications
Insulation resistance	> 10 MΩ	At 500 V <sub>DC</sub> between frame and (+/-) terminals
Dielectric strength	600 V <sub>AC</sub>	
Acoustical noise	33 dB(A) Weighted (B&K equipment)	At rated voltage, in free air; Background noise 17 dB(A) Measured at 1 meter from the fan and perpendicular to the direction of the airflow.
Bearing system	2 ball bearings	
Weight	20 g	

### Particular Tests

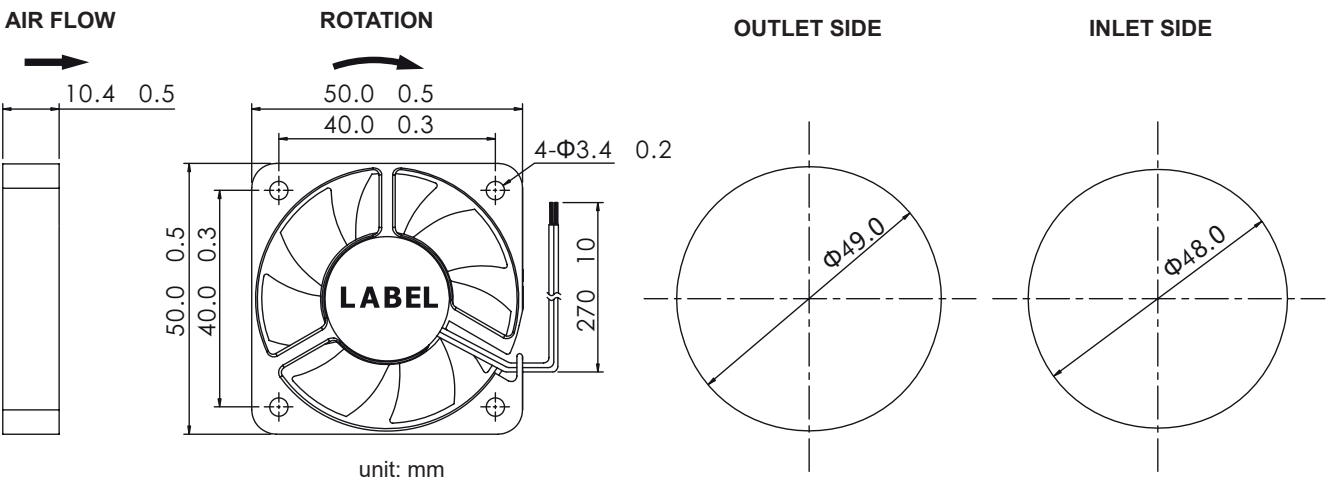
Vibration test	In minimum packaging condition, fan motor withstands 0.2 mm movement of 55 Hz vibration for 30 minutes each towards: Up-down, right-left and back-forth.
Drop test	In minimum packaging condition, motor withstands each one-drop of three faces from 30 cm distance high onto wooden board of 10 mm thickness.
Life expectancy	Minimum 70 000 h at 30 °C @ 6000 rpm The life is defined as the time duration until the fan motor speed is decreased more than 30 % compared to its initial speed.

## Protection

### Product Features

Locked rotor protection	Fan will automatically re-start in about 5 seconds after motor is released from locked condition.
Polarity protection	No damage if positive and negative leads are reversed under maximum operating voltage conditions.
Weather proofing	Stator, PCB and coils are varnished.

Drawings

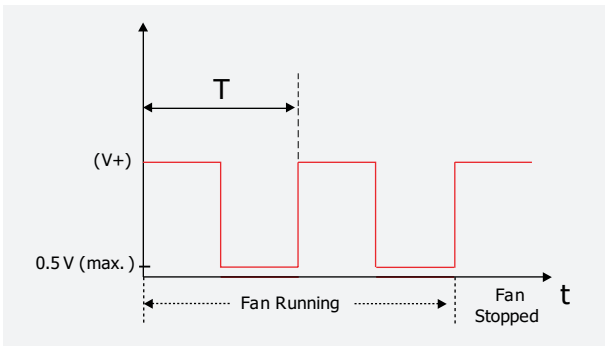


Rotation

Orientations

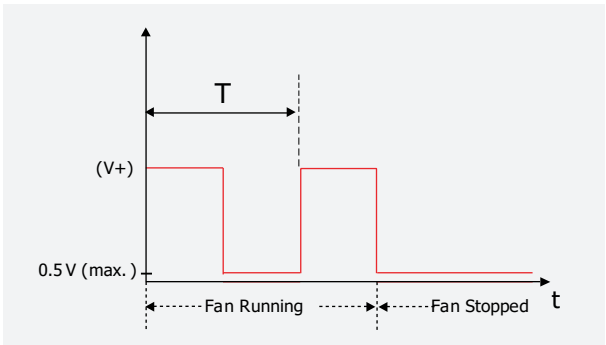
Direction of rotation	↻ Clockwise (view on inlet)
Mounting position	Any direction

Electronic Functions



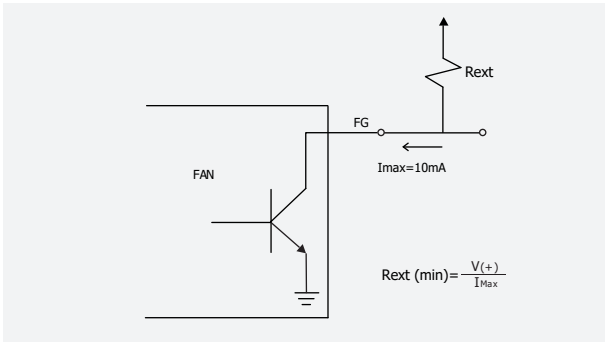
Open Collector Tachometer „FG“ output voltage waveforms

Function „FG“	Tachometer Output YELLOW wire
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Tacho Frequency	RPM=60/2T=30 f (f= frequency)
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Electronic Functions



Open Collector

Fan Rated	48 V	24 V	12 V	5 V
V (+) max.	57 V	27 V	14 V	6 V

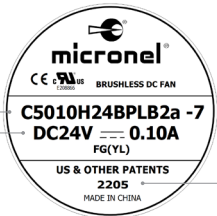
Identification

Label

Design

- Identification number (Micronel)
- Fan type (C)
  - Construction size (4 digits)

Nominal voltage



Serial number



Handle in power-off conditions only!  
Read operating manual!



Please see separate accessories list or contact  
Micronel Sales for a full list of options and  
accessories.