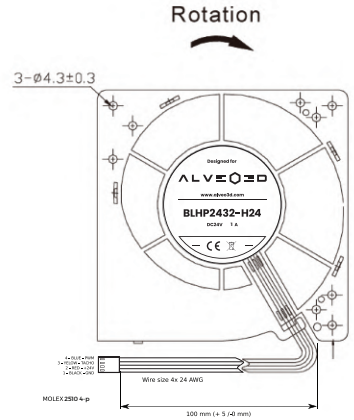
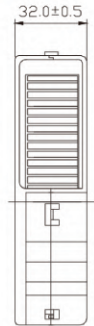
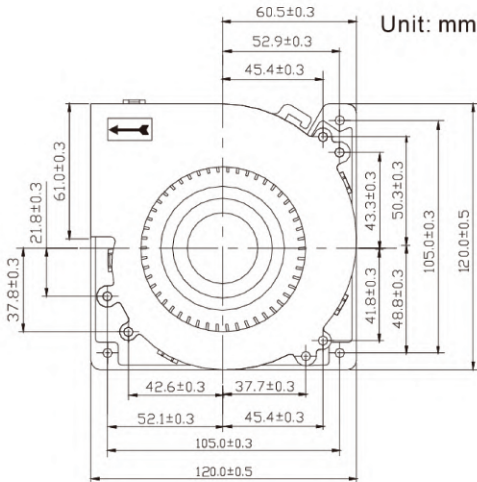


# BLHP2432-H24 FAN: DATASHEET

## DC BLOWER FAN 120x120x32MM



### ◆ DIMENSIONS DRAWING



### ◆ CONNECTORS

HOUSING	:	MOLEX 2510 4 pins connector
CONNECTION LEAD TYPE	:	UL1007 24# AWG L= 100mm
BLACK WIRE	:	NEGATIVE -
YELLOW WIRE	:	(FG OUTPUT)
RED WIRE	:	POSITIVE +
BLUE WIRE	:	PWM SIGNAL

# BLHP2432-H24 FAN: DATASHEET

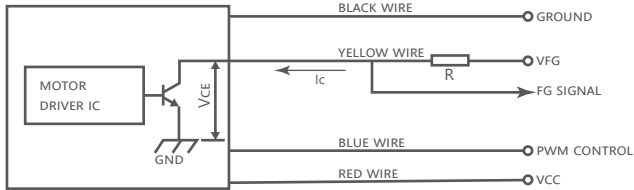
## ◆ TECHNICAL SPECIFICATIONS

DIMENSIONS	:	120*120*32mm
BEARING TYPE	:	TWO BALL BEARING 50000 hrs life expectancy at 40°C
RATED VOLTAGE	:	DC 24V
OPERATING VOLTAGE	:	DC 21.6V-26.4V
START-UP VOLTAGE	:	18.0V ON/OFF
INPUT CURRENT	:	1A±10% (max 1.1A)
INPUT POWER	:	25.2W±10% (max 26W)
RATED SPEED	:	4000±10%RPM
MAX.AIR FLOW	:	43.5 CFM ( REF.) AT ZERO STATIC PRESSURE . (Max. Static Pressure) 52.8 mm/H2O
ACOUSTICAL NOISE MAX.	:	59 dB-A REF. 1 meter away from blower
POLARITY PROTECTION	:	YES
LOCKED ROTOR PROTECTION	:	YES
SIGNAL OUTPUT	:	NO
SPEED CONTROL	:	NO
AUTO RESTART	:	YES
ROTATING DIRECTION	:	ANTI-CLOCKWISE
OPERATING TEMPERATURE RANGE	:	-10°C ~ 70°C
OPERATING HUMIDITY RANGE	:	35% ~ 85%

## TACHYMETER SPECIFICATIONS

Rotation Speed detect (FG Signal)

Output circuit-open collector mode



Caution: The FG signal lead wire must be kept away from «+» & «-» lead wire.

FG signal

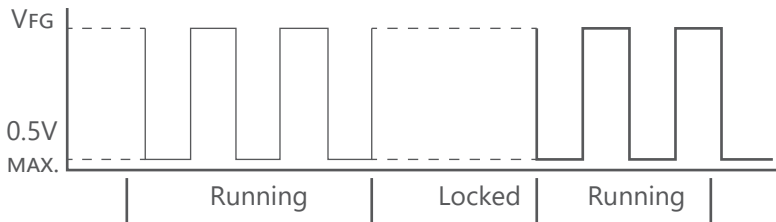
$V_{ce(sat)} = 0.5V \text{ MAX.}$

$I_c = 5mA \text{ MAX.}$

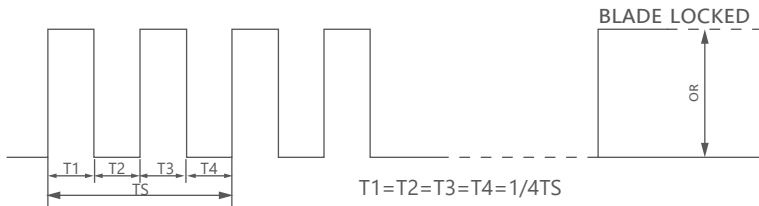
$V_{FG} = 5.5V$

$R \geq V_{FG}/I_c$

Frequency generator waveform



Fan running for 4 poles



$N=R.P.M$

$TS=60/N(\text{sec})$

Voltage level after blade locked

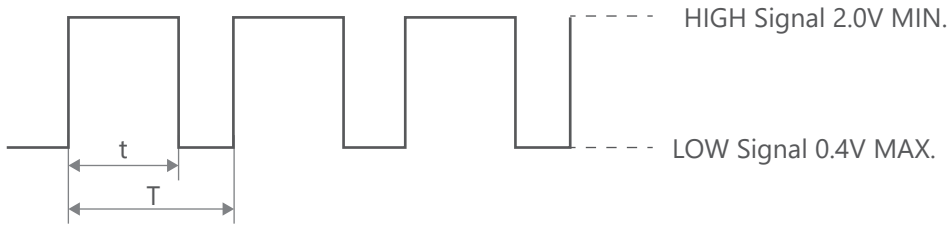
4 poles

# BLHP2432-H24 FAN: DATASHEET

## ◆ PWM CONTROL SIGNAL

The signal voltage range must be 5 volts (Signal Voltage :  $5 \pm 0.5\text{VDC}$ )  
(Signal current :  $\leq 2\text{mA}$ )

FREQUENCY GENERATOR: Waveform of the signal



$$\text{Duty Cycle} = t/T * 100(\%)$$

The frequency for control signal of the fan shall be able to accept 0.5-50 KHz.  
The preferred operating point for the fan is 25KHz.

At 100 % duty cycle, the rotor will spin at maximum speed.

With control signal lead disconnected the fan will spin at maximum speed.

Duty Cycle %	0	20	40	60	80	100
Speed RPM	0	800	1600	2400	3200	4000