

# Specification

## Radial Blower U71HL-024KM-5



### General Information

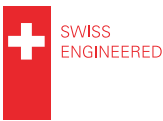
Item	
Product type	Radial blower
Part no.	U71HL-024KM-5 U71HL-024KM-51 with inlet port (option) U71HL-024KM-52 with outlet port (option) U71HL-024KM-53 with inlet and outlet port (option)
Customer	N/A
Project no.	N/A
Modification	Standard product

### Description

This versatile and powerful blower has been designed for cost sensitive applications. It is optionally available with inlet and outlet nozzles.

### Features

- Static pressure: 69 hPa, freeflow: 470 l/min
- 24 V<sub>DC</sub> brushless DC-motor
- Aluminum heat sink
- Options for in- and outlet ports

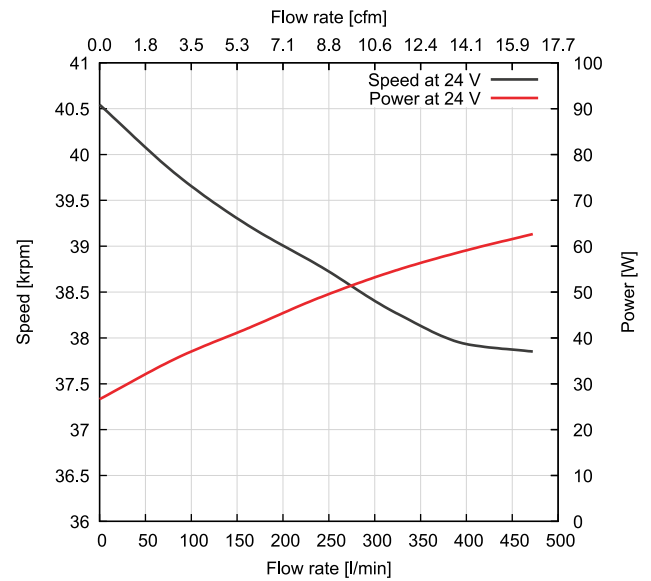
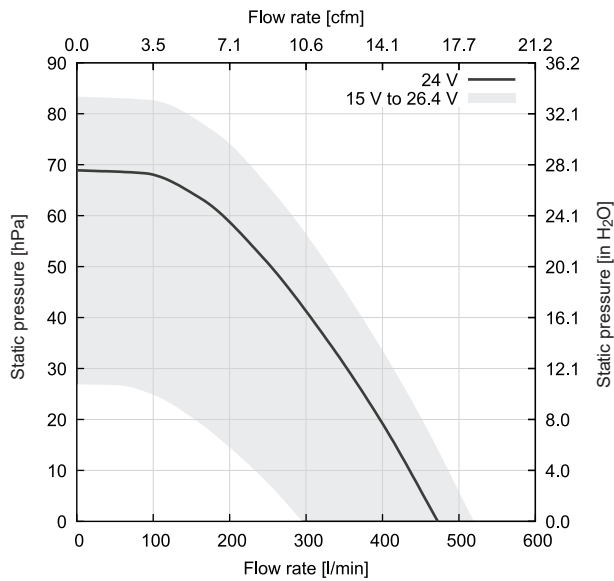


### General Conditions

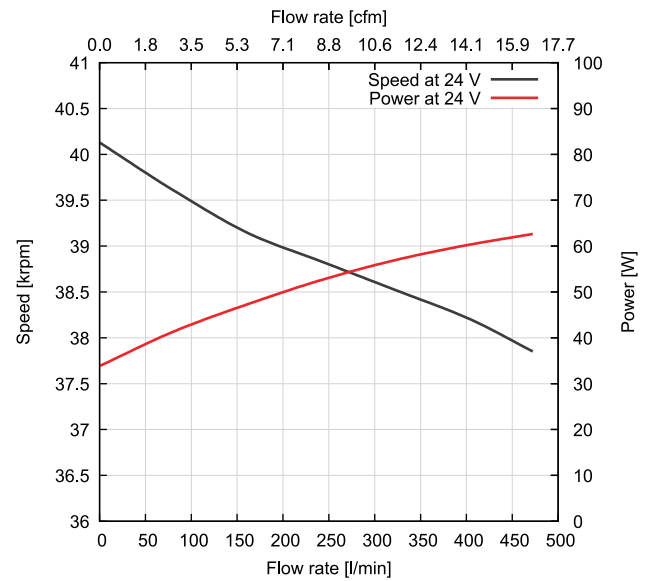
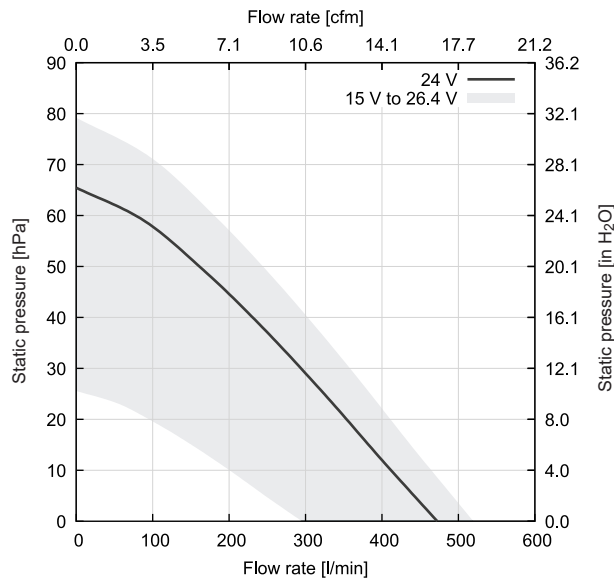
Unless otherwise stated all data are measured at nominal voltage and are valid at 20 °C ambient temperature and 1.2 kg/m<sup>3</sup> standard air density. Values listed are nominal and can vary depending on the installation conditions and due to component tolerances. Test setup according to ISO 5801 with standardized inlet and outlet chambers. Tolerances based on specified speed data according to ISO 13348, grade 4: pressure +/-10 %, power +16 %. Tolerances based on constant voltage: speed +/-10 %, pressure +/-21 %, power +33 %. For continuous blower operation please refer to specified maximum ratings. Performance data outside normal operating range plotted for information only.

## Performance

### Pressure Operation at Outlet



### Vacuum Operation at Inlet



#### Shut-Off in Pressure Operation (Zero Flow Rate)

	Unit	Value
Static pressure	[hPa]	69
Power consumption	[W]	27
Speed	[rpm]	40 500

#### Shut-Off in Vacuum Operation (Zero Flow Rate)

Static pressure	[hPa]	64
Power consumption	[W]	34
Speed	[rpm]	40 100

#### Free-Air (Zero Static Pressure)

Flow rate	[l/min]	470
Power consumption	[W]	63
Speed	[rpm]	37 900

## Technical Data

Electrical	Unit	Value
Nominal supply voltage	[V <sub>DC</sub> ]	24
Supply voltage range	[V <sub>DC</sub> ]	15 to 26.4
<b>Maximum Ratings for Continuous Operation</b>		
Minimum flow rate	[l/min]	N/A
Maximum speed	[rpm]	45 000
Maximum acceleration	[rpm/ms]	N/A
Maximum power consumption	[W]	63
Maximum housing surface temperature	[°C]	65
Maximum NTC temperature	[°C]	N/A
<b>Environmental</b>		
Ambient temperature (operating)	[°C]	-20 to 45
Ambient temperature (storage)	[°C]	-20 to 45
Relative humidity (non-condensing)	[%RH]	10 to 95
Ingress protection (EN60529)		IP40
Maximum oxygen concentration	[%]	N/A
<b>Motor</b>		
Type		Brushless direct current motor
Winding insulation class		H, 180 °C
Phase to phase resistance	[Ω]	0.536
Phase to phase inductance	[mH]	0.043
Speed constant	[rpm/V]	1717
Torque constant	[mNm/A]	5.56
Number of pole pairs		1
Hall sensor type		AKE, EW-632 2.2-18 V <sub>DC</sub>
NTC type		N/A
<b>Lifetime</b>		
L10 at 25 °C ambient temperature <sup>(1)</sup>	[h]	20 000
<b>Acoustics</b>		
Sound pressure level	[dB(A)]	N/A
<b>Leak Tightness</b>		
Maximum leak flow rate	[l/min]	N/A
<b>Mechanical</b>		
Blower weight	[g]	330
Rotor weight	[g]	36
Rotor moment of inertia	[g · cm <sup>2</sup> ]	20.8

<sup>(1)</sup> Accelerated aging test at 45 °C ambient temperature, continuous operation, normal cleanliness according to ISO 281.  
Temperature dependency of lifetime according to IPC-9591: factor 1.5 per 10 °C.



Identification

Label

Design

Part number

Nominal voltage

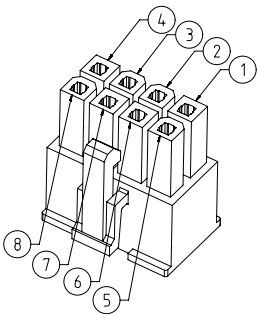


Identification number:

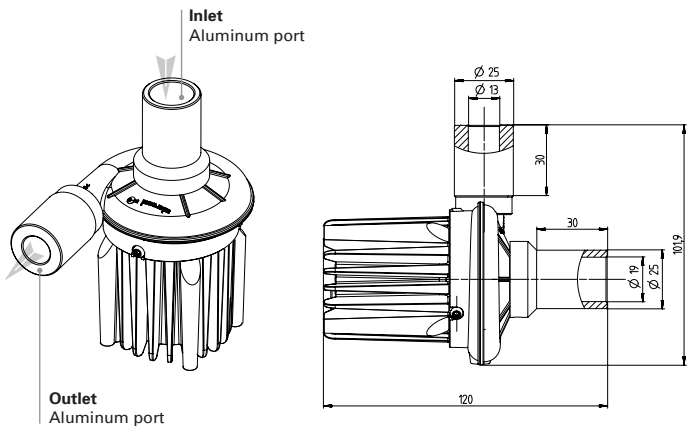
- Year, calendar week (YYWW)
- Fabrication number (6 digits)
- Serial number (3 digits)

Blower Pinout

Pin	Color	Description	AWG
1	Blue	Hall sensor 1	30
2	Black	Hall sensor 2	30
3	Yellow	V <sub>Hall</sub>	30
4	Orange	Motor winding W	24
5	Grey	Hall sensor 3	30
6	Green	GND	30
7	Brown	Motor winding U	24
8	Red	Motor winding V	24



Options for Inlet and Outlet Ports\*



Article with options	Inlet port	Outlet port
Radial Blower U71HL-024KM-5		
Radial Blower U71HL-024KM-51	●	
Radial Blower U71HL-024KM-52		●
Radial Blower U71HL-024KM-53	●	●

\* The drawings show inlet and outlet ports. Both options are independent of each other.

No application of forces on ports allowed!

Notice



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.

All data are subject to change without advanced notice.  
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