

Specification

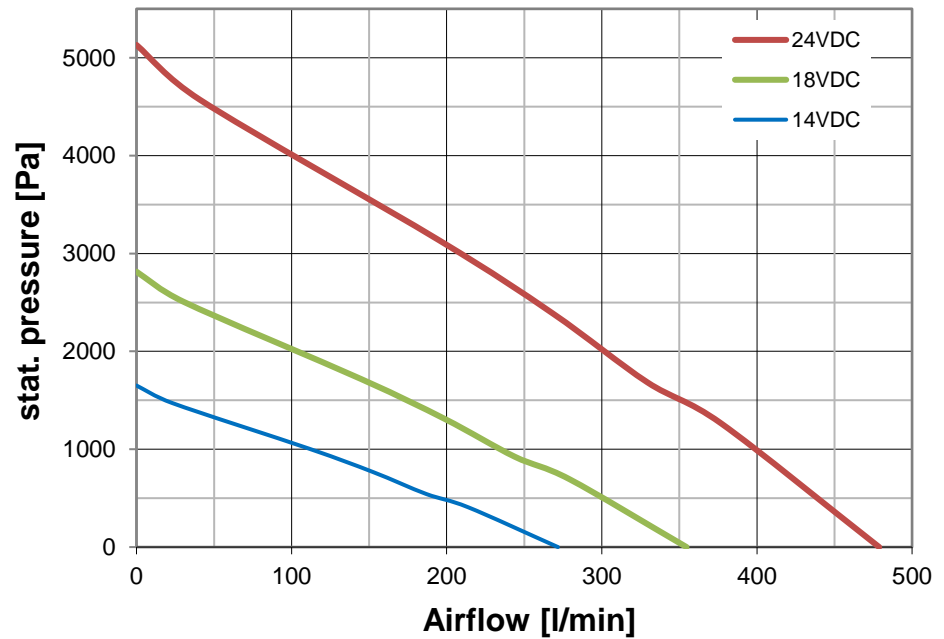
Product	U51DX-024KK-5	
Product type	Radial blower	
Customer	-	
Modification No.	-	
Modification	Standard Product	
Design	Motor	Electronic commutated Motor (brushless) Neodym - Ferrit Magnet 2 Ball bearing
	Impeller	Mat. Polyamide (PA6)
	Housing	Mat. Polycarbonate (PC)
	Motor support	Mat. Aluminium, anodised, natural colour
	Electric connection	Lead wire AWG 24, UL1007, PVC Lengths see dimensional drawing.
	Label	Mat. Plastic, size 16x26mm

Performance
 Density 1.2 g/dm³

Operating range	Nominal voltage	[V]	24
	Voltage range	[V]	12 to 24
Free blowing	Current	[mA]	1'850
	Power	[W]	45.0
	Speed	[min ⁻¹]	45'100
	Air flow	[l/min]	480
Typ. Working point (Appr. 50% Q _{max})	Current	[mA]	1,800
	Power	[W]	43
	Speed	[min ⁻¹]	45'800
	Air flow	[l/min]	270
	Pressure	[Pa]	2'380
Static pressure	Current	[mA]	1'170
	Power	[W]	28
	Speed	[min ⁻¹]	54'000
	Pressure	[Pa]	5'120

p/Q-Diagram

Density 1.2g/dm³



Blower limits



Maximum speed 45'000 1/min

Max. allowed temperature on motor surface: 65°C

**Exceeding the blower limits during continuous operation may cause permanent damage!
 Handle only in currentless condition!**

Power supply requirements

Ripple voltage < 5%
 2000 mA (nominal voltage)

Mechanical

Acoustic emission level at nominal voltage LpA 1m [dB(A)] Distance: 1 m 62 at 1'000 Pa (10mbar)

Weight m [gr.] 90

Balancing class G [mm/s] <6.3

Tests

MTTF 15'000h at nominal voltage

Test conditions
 Outlet orifice: 4.5 mm
 Ambient temperature: 25°C
 Cycle: 2.2 / 2.2 sec.
 10k / 40k rpm
 Air quality: free of dust, fumes and unnatural concentrations of gases.

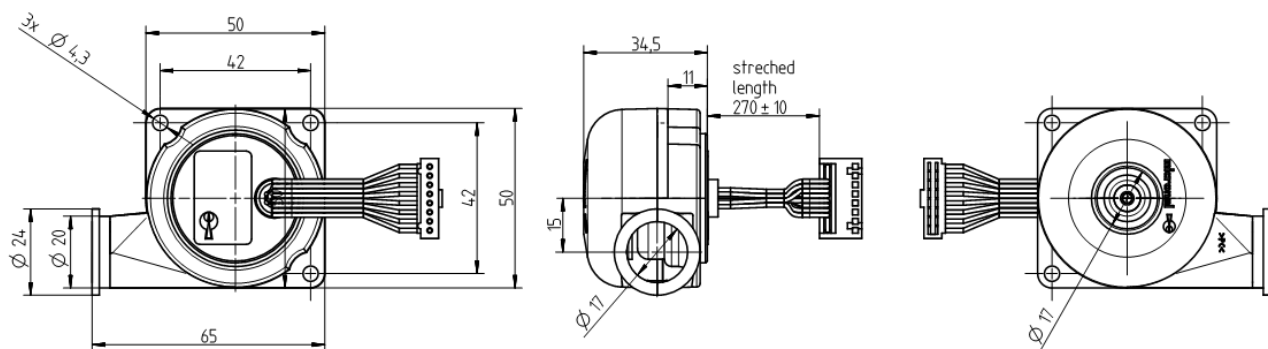
Environmental


Temperature range (operating and stock) [°C] -20 to +40

Humidity % RH 10 to 85

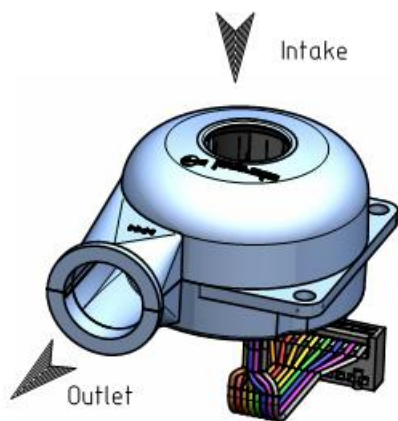
Protection class (Norm EN60529) IP40

Dimensional Drawing



Direction of rotation CCW 

Picture



Electrical circuit

Connector pin assignment
 Connector type: Stocko MKF 13268-6-0-808

AWG	PIN	Description	Colour
24	1	Motorwinding 1	Brown
24	2	Motorwinding 2	Red
24	3	Motorwinding 3	Orange
24	4	Vhall 4.5...18VDC	Yellow
24	5	GND	Green
24	6	Hall sensor 1	Blue
24	7	Hall sensor 2	Violet
24	8	Hall sensor 3	Grey

Standards

CE Document: CE-KE-X2012-U-Line.pdf
 RoHS II Document: Conformity-
 REACH Declaration_Micronel_Apr_2013.pdf

Additional document -

Disclaimer

General All data can be subject to change without advanced notice.
 Performance data Values listed are nominal and can vary due to component tolerances.

Revision

0 26.11.09 DH Basic Spec.
1 28.06.11 LP Performance: Operating Voltage range 12 – 24 V
2 28.06.11 Mp Blower limits, final inspection parameters
3 05.06.13 LT Housing and impeller material updated
4 02.04.14 CP Layout updated
5 04.11.19 RZ Performance update