Boreasa

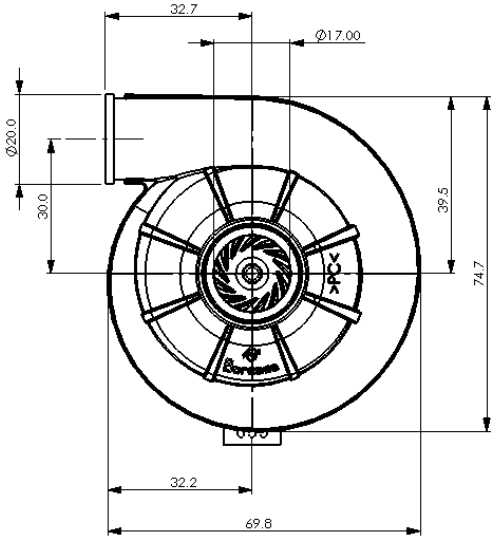
E-mail: sales@boreasa.com, URL: www.boreasa.com

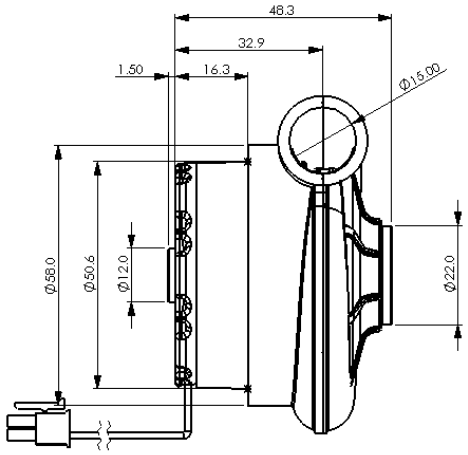
Miniature Radial Blower

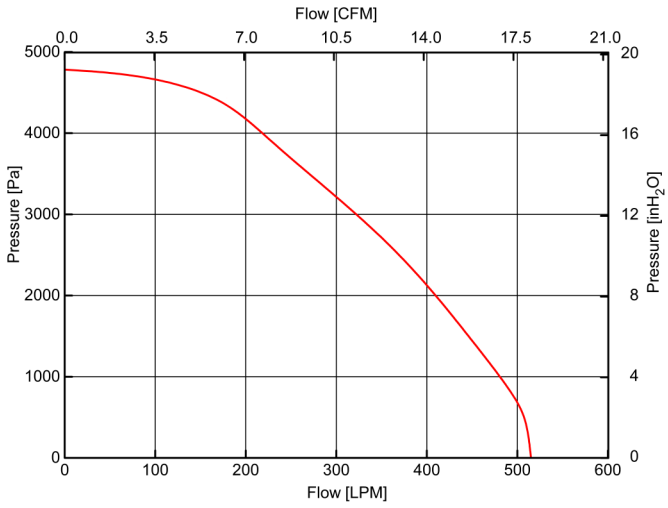
C75M1-24PS-01-L2

70.3 x 74.7 x 48.3 mm (2.77 x 2.94 x 1.90 in)

* Housing and Impeller materials: Medical Grade Thermoplastics
* Lead Wire: 300±10 mm (AWG22)
* Weight: 175 gr. (6.17 oz)
* Operational Temperature: -20 to 40ºC / -4 to 104ºF
* Three Phase Brushless Motor w/ Hall Sensor
* Connector: Molex Microfit 43025-0800 or 43025-1000
* Optional Motor Internal Temperature Signal
* **Note: This blower uses a brushless motor and needs a driver to operate**







NOTES:
- Performances are dependent on the driver used and the test conditions. The data in this spec. sheet was obtained using Boreasa test chamber at 20°C (±2° C) and sea level, and using a Boreasa D30/5/4Q-E2 driver. It may be different than data measured in other conditions or with other drivers.
- When used as a vacuum, the blower performance might be less then shown herein, depending on the operating point.
- Specifications are subject to change without notice.
- Boreasa blowers have been designed and are manufactured to meet the medical device industry requirements. However, it is not possible to test blowers in all conceivable customer application configurations. Consequently, to be used in life support equipment, blowers must be life tested and validated by customers, in their actual application conditions, in a statistically meaningful quantity.

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Technical Data

		C75M1-24PS-01-L2
V_{CC} Nominal Voltage	V	24
V_{CC} Voltage Range	V	12~27
R Phase-Phase	Ohm	-
L Inductance	mH	-
I_N freeblowing @Nom. Volt.	A	1.80
I_N work. point @Nom. Volt.	A	1.30
I_N static @Nom. Volt.	A	0.75
n freeblowing @Nom. Volt.	rpm	29’130
n work. point @Nom. Volt.	rpm	31’280
n static @Nom. Volt.	rpm	34’330
V freeblowing @Nom. Volt.	l/min	515
V work. point @Nom. Volt.	l/min	230
P work. point @Nom. Volt.	Pa	3’833
P static @Nom. Volt.	Pa	4’783
MTTF (L10)	Hr	>18’000
I Inertia	g*mm^2	3’475
LpA work. point	dB(A)	-

NOTES:
- Working point is an example close to 50% max flow.
- Measured at distance of 1 meter from inlet, with open inlet, outlet connected to breathing tube and 4 mm orifice in sound chamber at 1 kPa.
- The phase inductance and impedance are measured by LCR at 1 kHz, including the connector.
- Tolerances based on specified speed data according to ISO 13348, Grade 4: pressure ±10%, power ±16%, speed ±5% and flowrate ±5%.

RoHS CE

For information, to receive a quotes or to place an order, e-mail us at sales@boreasa.com

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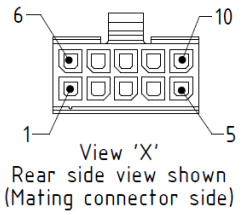
Electrical Connections



Wire		Description	Connector Pin 8 wires (option)	Connector Pin 10 wires (standard)
Blue	H_A	Hall sensor A	PIN 1	PIN 1
Purple	H_B	Hall sensor B	PIN 2	PIN 2
Yellow	V_{Hall}	V_{hall} 4.5 ... 24 V_{CC}	PIN 3	PIN 3
Orange	W_3	Motorwinding W	PIN 4	PIN 4
White	IT	Internal Temperature	N/A	PIN 5
Grey	H_C	Hall sensor C	PIN 5	PIN 6
Green	GND	Ground	PIN 6	PIN 7
Brown	W_1	Motorwinding U	PIN 7	PIN 8
Red	W_2	Motorwinding V	PIN 8	PIN 9
White	IT	Internal Temperature	N/A	PIN 10

Blower Limits and Warning

* No Hot-Swap allowed
* Max. allowed temperature on Heat Sink: 75º C
* Max. cont. speed: 52'000 rpm
* Max. cont. current allowed at 25º C / 50º C -12: 4'000 mA / 3'000 mA
  -24: 2'500 mA / 2'000 mA
* Blocking the impeller more than 20 seconds may result in damages or destruction of the blower, unless current is limited to values listed above.
* A minimum air flow is required at V_{CC} higher than Nominal Voltage to avoid the air in the blower to overheat by compressing and mixing.

Manufacturing System

Blowers manufactured by ISO9001-2015 certified manufacturer

Motor Internal Temperature Signal (IT)

The temperature of the inside of the motor is indicated by resistance of the NTC. The 100 KΩ NTC (AVX p/n NB12P00104JBB) is connected between the IT outputs (PIN5 & PIN10).