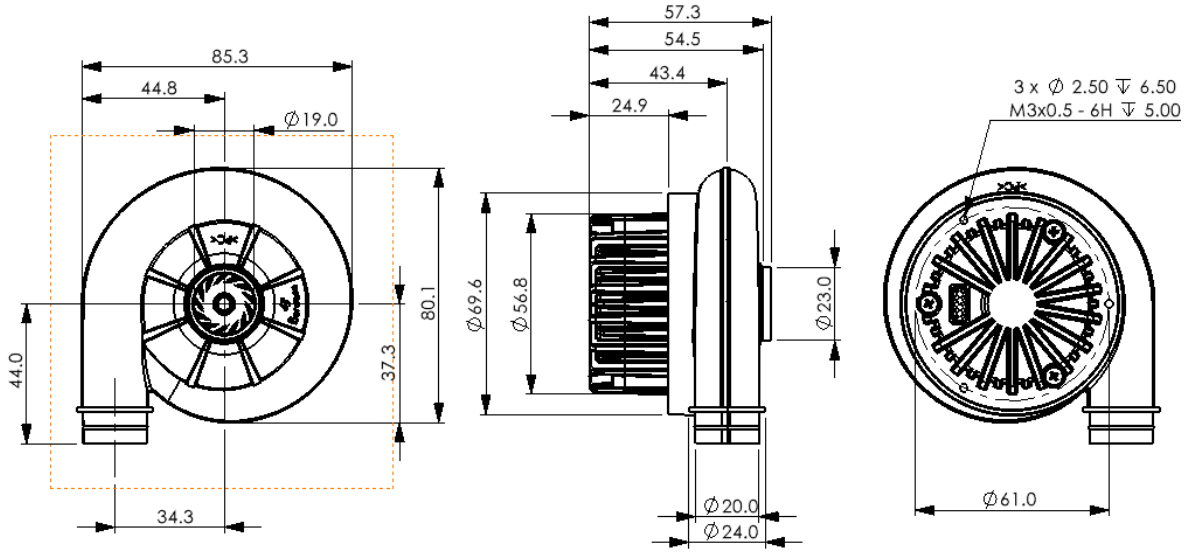
E-mail: sales@boreasa.com, URL: www.boreasa.com

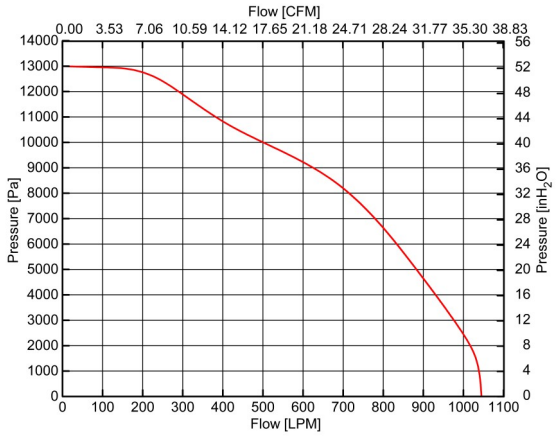
Miniature Centrifugal Blowers

C85MS1-24PR-0B-L4

85.3 x 80.1 x 57.3 mm (3.36 x 3.15 x 2.26 in)

* Housing and Impeller materials: Medical Grade Thermoplastics
* Lead Wire: 300±10 mm (AWG20 & AWG26)
* Weight: 450 gr. (15.9 oz)
* Operational Temperature: -20 to 40ºC / -4 to 104ºF
* Three Phase Brushless Motor w/ Hall Sensor
* Connector: Molex Microfit 43025-1000
* Standard 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 D30/15/4Q-E1 driver. It may be different than data measured in other conditions or with other drivers.
- 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

		C85MS1-24PR-0B-L4
V_{CC} Nominal Voltage	V	24
V_{CC} Voltage Range	V	12~27
R Phase-Phase	Ohm	0.32
L Inductance	mH	0.03
I_N freeblowing @Nom. Volt.	A	8.00
I_N work. point @Nom. Volt.	A	5.50
I_N static @Nom. Volt.	A	3.00
n freeblowing @Nom. Volt.	rpm	39’000
n work. point @Nom. Volt.	rpm	40’500
n static @Nom. Volt.	rpm	43’000
V freeblowing @Nom. Volt.	l/min	1’045
V work. point @Nom. Volt.	l/min	402
P work. point @Nom. Volt.	Pa	10’500
P static @Nom. Volt.	Pa	13’000
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.
- 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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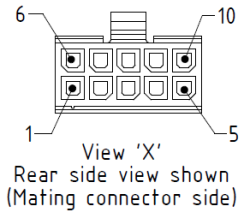
Electrical Connections



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

Blower Limits and Warning

* No Hot-Swap allowed
* Max. allowed temperature on Heat Sink: 75º C
* Max. cont. speed: 52'000 rpm
* Blocking the impeller more than 10 seconds may result in damages or destruction of the blower.

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 the resistance of a NTC. The 10 KΩ NTC (EPCOS B57421V2103J62, B value: 3980), is connected between the IT outputs (PIN5 & PIN10).