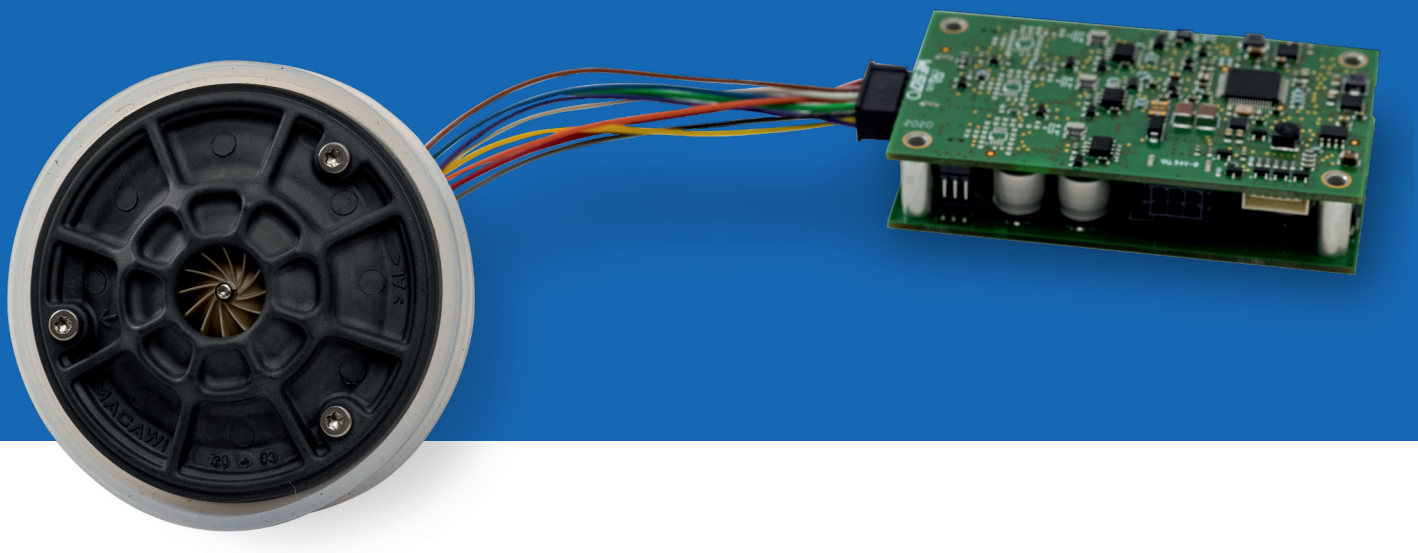
DEMCON | MACAWI RESPIRATORY SYSTEMS

Macawi Turbine Blower specifications.



MACAWI TURBINE BLOWER

The Macawi Turbine Blower for respiratory applications is especially designed for high dynamic pressure and flow capabilities. In combination with its very high durability characteristics and low power consumption, it results in the best blower for all medical ventilation applications.

BLOWER PERFORMANCE

Property	Value
Power Supply Voltage	24 V_{DC}
P_{el} at 2 kPa at 0 flow	≈ 4 W (1
P_{el} at 6 kPa at 0 flow	≈17 W (1
Max. pressure at 0 flow	>10 kPa (2
Max. output flow	> 300L/min (1
Max. speed	100.000 RPM
Max. pressure response	>5 kPa / 100 msec (1 (dependent of resp. circuit compliance)
Operating temperature	-20 – +60 °C
Relative air humidity	0 – 95% R.H.
Expected life time at moderate ventilation loads	> 45.000 hours (3
Gas media compliancy	Compatible for use in O_2 enriched environment
Dimensions	Ø 75 mm x 55 mm
Blower mass excl. electronics	< 150 g

(1 at 101 kPa environmental pressure
(2 not continuously, depends on thermal management
(3 at 50 °C motor temperature

MOTOR CONTROLLER

ELECTRICAL OPERATING CONDITIONS

Property	Value	Remark
Peak current	≤ 6A	Max. 250 ms during maximum pressure ramp-up
Continuous current	≤ 3A	@ 10 kPa
Nominal power consumption	5 – 30 W	Depending on ventilation conditions

DIGITAL INTERFACE

Property	Value	Remark
Serial interface	UART compatible	3.3V
Commands	• Speed control mode • Get speed and status info • Set baud rate • Firmware update	Speed control Digital or Analog - - -
Digital speed control	0 – 100.000 RPM	-
Analog speed control	0 – 5 V DC = 0 – 100.000 RPM	Standard active from start up
Digital output tacho signal	1 pulse per rotation	Open collector
Digital input motor disable	3.3V	-

DIMENSIONS

Property	Value	Remark
Controller	86mm x 50mm x 21mm	≈ Matchbox size