

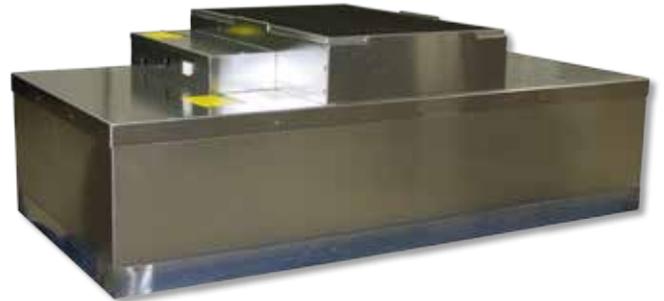
TECHNICAL SPECIFICATION

■ MAC 10[®] IQ LAF

Programmed for Low Flow and Low Sound applications.

■ Introduction

The MAC 10[®] IQ LAF is the world's first smart fan filter unit to take advantage of torque programming to achieve low airflow set-points using a microcomputer-controlled ECM motor. This was previously not possible with units programmed for constant airflow. With the advancement in ECM motor technology, we are able to provide a fan filter unit that delivers low airflow and maintains airflow within 10% for up to .2" WC changes in static pressure. The ability to adjust to limited changes in static pressure gives the fan the ability to supply reduced airflow for critical applications requiring low flow and low sound.



A Universal Control Card with three different control modes, provides installation versatility by allowing the FFU to be controlled via a MODBUS RTU network, an analog 0-10 VDC control signal, or by adjusting the onboard potentiometer.

The MAC 10[®] LAF FFU uses a combination of ECM motor technology with Envirco's unique baffling system and forward curve fan to make it intelligent and energy-efficient. The electronically commutated (ECM) motor with internal micro-computer provides low energy consumption high performance and long motor life. The LAF utilizes Envirco's VE5 baffling technology, offering you versatility in your design that are a MAC 10[®] family benchmark.

■ Standard Features

- » Universal control card offering manual, Modbus, or analog options.
- » ECM brushless motor with internal microprocessor
- » High Efficiency Particulate Air (HEPA) UL 900 Filter: 99.99% efficient @ 0.3 micron
- » Forward-curved centrifugal fan
- » Walkable plenum (excluding prefilter), rated to 250 lbs.
- » Snap-in Prefilter: allows for easy replacement and maintenance
- » Mill finished aluminum exterior
- » Tested to IEST recommended standards
- » UL listed (115V, 208-240V, 277V) with standard UL 900 filter, File number E152685 (UL507)

■ Applications

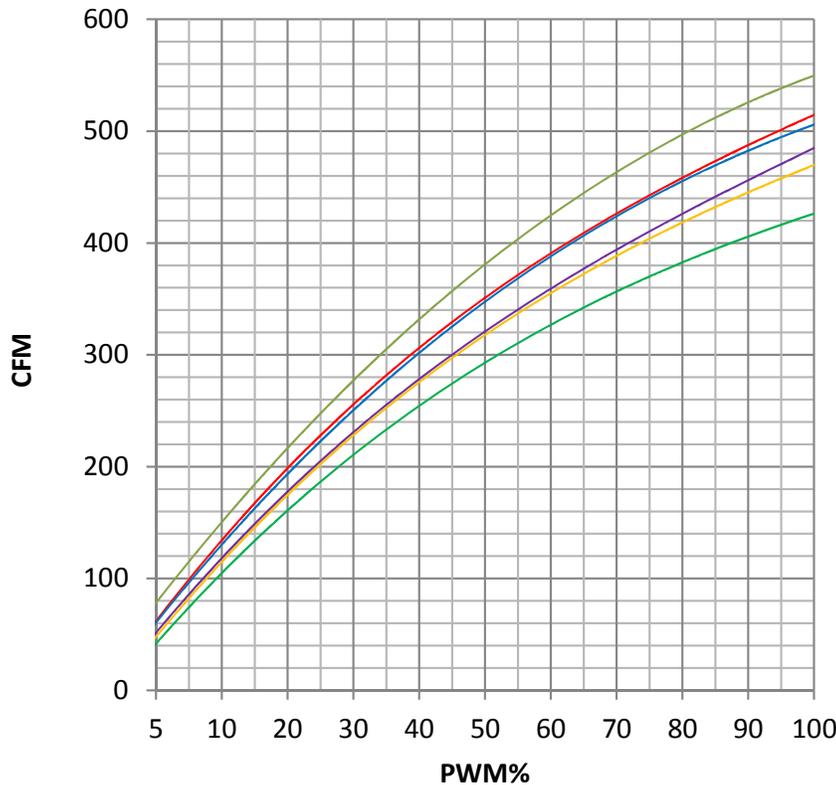
- » Low airflow applications
- » Sound Sensitive applications:
 - » Vivariums, Hospital Rooms, Labs
 - » Operating Rooms
 - » Museums
 - » Semi-Conductor Tools
 - » Pharmacies
 - » Small Ante rooms

■ Optional Features

- » Room-Side Replacement (RSR) available with gel seal filter element; filter is replacement from the room side
- » RSRE provides filter and motor/blower assembly replacement from the room side
- » Infrared Speed Control: Room-side airflow adjustment
- » Duct Collar 10" (254 mm) and 12" (305 mm): Allows direct connection to the air conditioning supply (shipped loose)
- » CE Marked: 230V units available
- » Fluorescent Light: Provides illumination with minimal airflow disruption
- » Ion Bar: Neutralizes static charges below the filter. (Universal voltage power supply required)
- » Finish: Powder coat painted or stainless steel
- » Room-side 3/8" Challenge Ports: Offers convenient aerosol challenge and HEPA filter testing
- » 3/4" Knife Edge: Permits easy placement in gel track ceiling grid systems (available on RSR and RSRE units only)
- » Custom sizes and configurations available; perfect for mini-environment applications
- » Metric sizes available

TECHNICAL SPECIFICATION

■ Performance MAC 10[®] IQ LAF



Low Air Flow Chart

- 2X4 STD, HEPA
- 2x3 STD, HEPA
- 2X4 RSR, HEPA
- 2X3 RSR, HEPA
- 2X2 STD, HEPA
- 2X2 RSR, HEPA

Airflows are based upon 0.0 w.g. static pressure and based upon HEPA filters only.

Notes:

Performance tested in accordance with the (ANSI/AMCA 210-07), (ANSI/ASHRAE 51-07) test standards for Certified Aerodynamic Performance Rating.

Max CFM rating based on free air volumes at high speed motor setting .90 fpm values based on active filter face area.

Heat gain: BTU = Watts x 3.413

MAC 10 LAF:

Full-Load Amps: 115V/60Hz/1 Ph = 5.0; 208-240V/50/60 Hz/1 Ph = 3.0; 277V/60 Hz/ 1 Ph = 2.5.

Custom sizes are available. Consult the factory for both size and control options.

Nominal Unit Size	Active Filter Face Area (Sq. Ft.)	Max CFM	Min CFM	Running Max Watts	Running Min Watts	Unit Weight	Dimensions (in)
2x4 Standard	7.2	490	140	90	13	66	23.63 x 47.63 x 14.32 (600 x 1210 x 364)
2x3 Standard	5.3	460	123	104	15	52	23.63 x 35.63 x 14.32 (600 x 905 x 364)
2x2 Standard	3.5	400	105	122	16	41	23.63 x 23.63 x 14.32 (600 x 600 x 364)
2x4 RSR/RSRE	5.3	450	120	103	14	71	23.63 x 47.63 x 16.43 (600 x 1210 x 417)
2x3 RSR/RSRE	3.8	425	115	119	17	54	23.63 x 35.63 x 16.43 (600 x 905 x 417)
2x2 RSR/RSRE	2.3	380	100	132	18	44	23.63 x 23.63 x 16.43 (600 x 600 x 417)

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