MODEL780

AirVolution D

Extra-Large Spaces

Designed for heavy-duty applications, a breakthrough in motor design allows the powerful AirVolution-D 780 fan to generate 75% more wind power. This makes it perfect for extra-large spaces like warehouses, airplane hangars, airports, and stadiums. The fan's durable design also eliminates the gearbox for easy installation, zero maintenance, and operation that's practically inaudible. And to ensure safe and reliable performance, the full line is Wash Down rated for indoor or outdoor use.

Key Specs:

- Airfoil sizes 20 to 24 ft integrate into any extra-large space
- Airfoils also available in black
- 50% more horsepower for 76% more wind power*
- 45% lighter for easy installation, less wear and tear*
- On-board AirBrain adapts to input voltages, optimizes motor control
- No gearbox means silent operation, zero maintenance
- Integrates into HVAC and other automated building systems via gateway
- Wash Down Duty rated for indoor / outdoor use
- Backed by a 50,000-Hour Warranty

*Compared to the leading competitor's similar model

WARRANTY AND SAFETY

Safety Components: Safety Cable, Rapid Mount Industrial, Blade Retainer Links

Warranty: Lifetime: 50,000 operating hours

BASIC SPECIFICATIONS

AIRFOIL DIAMETER	20ft	24ft
Model Number	MA20XL7806	MA24XL7806
Airfoil Style	7.375'' Extruded Anodized Aluminum Airfoil	
Number of Airfoils	6	6

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Rev. 052915

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PERFORMANCE	20ft	24ft
Max Displacement Forward**	250,000 CFM [7,070 CMM]	346,000 CFM [9,800 CMM]
Max Thrust Forward	65 lbf [287 N]	84 lbf [375 N]
Max Displacement Reverse**	187,000 CFM [5,300 CMM]	256,000 CFM [7,250 CMM]
Max Thrust Reverse	36 lbf [161 N]	46 lbf [205 N]
Variable Speed	1-75 RPM	1-64 RPM
Max Power Usage	1,180 W	1,550 W
Drive & Motor Efficiency at Max RPM***	79%	73%
Recommended Industry Spacing****	105 ft [32 m]	115 ft [35.1 m]
Max Affected Area*****	20,000 ft^2 [1,858 m^2]	22,000 ft^2 [2,044 m^2]
Sound Level dBA at 50% Speed******	41	39
Sound Level dBA at 100% Speed******	57	56

WEIGHTS AND DIMENSIONS		
Hanging Weight	189 lbs [85.7 kg]	213 lbs [96.6 kg]
Total Shipping Weight	314 lbs [142.4 kg]	351 lbs [159.2 kg]
Motor System Shipping Weight	157 lbs [71.2 kg]	157 lbs [71.2 kg]
Motor System Shipping Dimensions	29x30x26 in [0.74x0.76x0.66 m]	29x30x26 in [0.74x0.76x0.66 m]
Blade Shipping Weight	160 lbs [72.6 kg]	197 lbs [89.4 kg]
Blade Shipping Dimensions	120x25x15 in [3.05x0.64x0.38 m]	144x25x15 in [3.66x0.64x0.38 m]

MOTOR AND DRIVE TRAIN	
Motor Type	Sensorless, Brushless, Permanent Magnet, Transverse Flux DC Motor
Drive Train	Gearless Direct Drive
Motor Torque Rating	125.4 ft lb [170 Nm] Continuous
Equivalent Horsepower Rating	2.1 HP
Max Operating Temp	140°F [60°C]

MAX AMP DRAW / RECOMMENDED FUSE		
208-240 VAC 1-Phase	12.5A / 15	15.1A / 20
277 VAC 1-Phase	9.4A / 10	11.3A / 15
208-240 VAC 3-Phase	6.8A / 10	8.2A / 10
380 VAC 3-Phase	3.7A / 5	4.5A / 5
480 VAC 3-Phase	2.9A / 5	3.5A / 5
600 VAC 3-Phase	2.3A / 5	2.8A / 5

POWER AND CONTROLS	
Power Source High	1-phase or 3-phase (380-600) VAC +/-5%, 50/60 Hz
Power Source Low	1-phase or 3-phase (208-277) VAC +/-5%, 50/60 Hz
Offered Controllers	Digital touchpad Standard, MacroAir Controller 6 and 30 (coming soon)
Control Types	Digital MODBUS 485 (Analog control, BACnet and LonWorks interfaces coming soon)

INSTALLATION	
Mounting Hardware	Rapid Mount Industrial
Drop Extensions	In addition to the standard drop length supplied, optional drop lengths are available in 1in increments; total drop lengths 10ft and greater require guy wires

RATINGS AND COMPLIANCE	
Fire and Sprinkler	NFPA Compliant
Wash Down Duty Rating	IP66

*Data will be added when additional testing and/or information is ready
**Calculation based on AMCA 230-99 equation
***Determined by dividing the mechanical power output of the motor by the electrical input into the fan system
****Delivers 2.8-4.2 ft/s [0.86-1.27 m/s] of average air speed in the occupied space. This relates to perceived cooling or set point change or 4.9-6.1 F [2.7-4.3 C]. Consult our online AirViz tool for more details
*****Delivers 2.7-3.8 ft/s [0.82-1.16 m/s] of average air speed in the occupied space. This relates to a perceived cooling or set point change of 4.8-5.8 F [2.6-3.2 C]. Consult our online AirViz tool for more details.
******Sound testing taken with the sensor 5 ft above the ground and 20 ft from the center of the fan at 20 ft high.

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