

# MODEL 550

AirVolution<sup>D</sup>



## Medium to Large Spaces

For medium to large spaces, the AirVolution-D 550 fan is extremely effective at controlling temperature and humidity. Ideal locations include auto shops, gyms, and agricultural applications like dairy farms and equine facilities. The system design eliminates the gearbox for a lighter, leakproof fan that is durable and runs with less friction. This makes it easy to install, maintenance-free and practically inaudible. To ensure safe and reliable operation, the full line is also Wash Down rated for indoor or outdoor use.

### Key Specs:

- Airfoil sizes 8 to 18 ft integrate into any medium to large space
  - Airfoils also available in black
  - 70% 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	8ft	10ft	12ft	14ft	16ft	18ft
Model Number	MA08XL5506	MA10XL5506	MA12XL5506	MA14XL5506	MA16XL5506	MA18XL5506
Diameter	8	10	12	14	16	18
Airfoil Style	7.375" Extruded Anodized Aluminum Airfoil					
Number of Airfoils	6	6	6	6	6	6



# MODEL 550

AirVolution<sup>D</sup>

PERFORMANCE	8ft	10ft	12ft	14ft	16ft	18ft
Max Displacement Forward**	53,000 CFM [1,490 CMM]	84,000 CFM [2,380 CMM]	106,000 CFM [3,010 CMM]	132,000 CFM [3,730 CMM]	158,000 CFM [4,490 CMM]	181,000 CFM [5,130 CMM]
Max Thrust Forward	18 lbf [79 N]	29 lbf [127 N]	32 lbf [141 N]	37 lbf [162 N]	39 lbf [174 N]	41 lbf [181 N]
Max Displacement Reverse**	29,000 CFM [820 CMM]	49,000 CFM [1,400 CMM]	76,000 CFM [2,140 CMM]	86,000 CFM [2,440 CMM]	114,000 CFM [3,240 CMM]	127,000 CFM [3,580 CMM]
Max Thrust Reverse	5 lbf [24 N]	10 lbf [49 N]	16 lbf [71 N]	15 lbf [68 N]	22 lbf [96 N]	20 lbf [89 N]
Variable Speed	1-220 RPM	1-170 RPM	1-137 RPM	1-110 RPM	1-90 RPM	1-74 RPM
Max Power Usage	730 W	850 W	920 W	890 W	1070 W	900 W
Drive and Motor Efficiency at Max RPM***	80%	78%	75%	73%	65%	63%
Recommended Industry Spacing****	60 ft [18.3 m]	65 ft [19.8 m]	70 ft [21.3 m]	80 ft [24.4 m]	90 ft [27.4 m]	95 ft [29 m]
Max Affected Area*****	4,000 ft <sup>2</sup> [372 m <sup>2</sup> ]	6,600 ft <sup>2</sup> [613 m <sup>2</sup> ]	8,800 ft <sup>2</sup> [818 m <sup>2</sup> ]	11,000 ft <sup>2</sup> [1,022 m <sup>2</sup> ]	13,000 ft <sup>2</sup> [1,208 m <sup>2</sup> ]	15,000 ft <sup>2</sup> [1,394 m <sup>2</sup> ]
Max Sound Level*****	TBA*	TBA*	TBA*	TBA*	TBA*	TBA*

## WEIGHT AND DIMENSIONS

Hanging Weight	128 lbs [58.2 kg]	137 lbs [62.2 kg]	146 lbs [66.2 kg]	155 lbs [70.2 kg]	164 lbs [74.2 kg]	172 lbs [78.2 kg]
Total Shipping Weight	216 lbs [98.0 kg]	226 lbs [102.5 kg]	236 lbs [107.0 kg]	257 lbs [116.6 kg]	266 lbs [120.7 kg]	285 lbs [129.3 kg]
Motor System Shipping Weight	140 lbs [63.5 kg]	140 lbs [63.5 kg]	140 lbs [63.5 kg]	140 lbs [63.5 kg]	140 lbs [63.5 kg]	140 lbs [63.5 kg]
Motor System Shipping Dimensions	29x30x24 in [0.74x0.76x0.61 m]	29x30x24 in [0.74x0.76x0.61 m]	29x30x24 in [0.74x0.76x0.61 m]	29x30x24 in [0.74x0.76x0.61 m]	29x30x24 in [0.74x0.76x0.61 m]	29x30x24 in [0.74x0.76x0.61 m]
Blade Shipping Weight	76 lbs [34.5 kg]	86 lbs [39 kg]	96 lbs [43.5 kg]	117 lbs [53.1 kg]	126 lbs [57.2 kg]	145 lbs [65.8 kg]
Blade Shipping Dimensions	72x25x15 in [1.83x0.64x0.38 m]	72x25x15 in [1.83x0.64x0.38 m]	72x25x15 in [1.83x0.64x0.38 m]	96x25x15 in [2.44x0.64x0.38 m]	96x25x15 in [2.44x0.64x0.38 m]	108x25x15 in [2.74x0.64x0.38 m]

## MOTOR AND DRIVE TRAIN

Motor Type	Sensorless, Brushless, Permanent Magnet, Transverse Flux DC Motor
Drive Train	Gearless Direct Drive
Motor Torque Rating	51.6 ft lb [70 Nm] Continuous
Equivalent Horsepower Rating	1.05 HP
Max Operating Temp	140°F [60°C]

## MAX AMP DRAW / RECOMMENDED FUSE

110 VAC 1-Phase	9.0A / 10	13.9A / 15	13.9A / 15	13.9A / 15	15.2A / 20	15.2A / 20
120 VAC 1-Phase	8.3A / 10	12.7 / 15	12.7A / 15	12.7A / 15	14.0A / 15	14.0A / 15
208-240 VAC 1-Phase	4.8A / 5	7.3A / 10	7.3A / 10	7.3A / 10	8.1A / 10	8.1A / 10
277 VAC 1-Phase	3.6A / 5	5.5A / 10	5.5A / 10	5.5A / 10	6.1A / 10	6.1A / 10
208-240 VAC 3-Phase	3.4A / 5	5.3A / 10	5.3A / 10	5.3A / 10	6.6A / 10	5.8A / 10
380 VAC 3-Phase	1.9A / 5	2.9A / 5	2.9A / 5	2.9A / 5	3.6A / 5	3.2A / 5
480 VAC 3-Phase	1.5A / 5	2.3A / 5	2.3A / 5	2.3A / 5	2.9A / 5	2.5A / 5
600 VAC 3-Phase	1.2A / 5	1.8A / 5	1.8A / 5	1.8A / 5	2.3A / 5	2.0A / 5

## POWER AND CONTROLS

Power Source High Range	1-phase or 3-phase (380-600) VAC +/-5%, 50/60 Hz
Power Source Low Range	1-phase or 3-phase (120-277) 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 of 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 with the fan running full speed and mounted at 20 ft high.