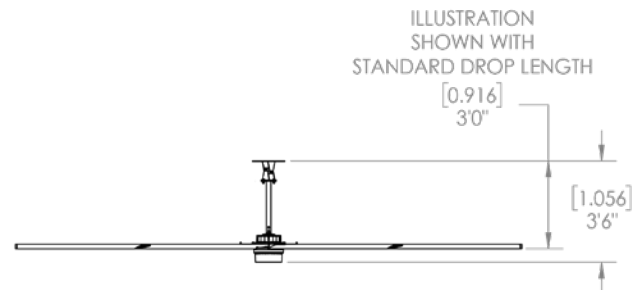# AirVolution-D 550

STANDARD FEATURES

- Clearcoat anodized airfoil blades with centrifugal cooling
- Forward, reverse, variable speed
- Rated for indoor and outdoor use*
- Integrates with building automation systems and fire alarm
- Digital wall controller with fault code access
- Safety components: safety cable, universal mount with guy wires, blade retainer links

ILLUSTRATION SHOWN WITH STANDARD DROP LENGTH

[0.916] 3'0"

[1.056] 3'6"

STEP 1: DIAMETERS

Item #	Diameter	Qty
P508	8 ft / 2.44 m	
P510	10 ft / 3.05 m	
P512	12 ft / 3.66 m	
P514	14 ft / 4.27 m	
P516	16 ft / 4.88 m	
P518	18 ft / 5.49 m	

STEP 2: VOLTAGE

Item #	Diameter	Qty
2301-MA	208-240V Single Phase, 50/60 Hz, 8 ft-16 ft	
2303-MA	208-240V Three Phase, 50/60 Hz, 8 ft-16 ft	
2501-MA	208-240V Single Phase, 50/60 Hz, 18 ft	
2503-MA	208-240V Single or Three Phase, 50/60 Hz, 18 ft	

STEP 3: MOUNTING

Item #	Options	Qty
60-50115-00	AVD Universal Mount with I-beam Hardware Kit	
60-50116-00	Rapid Mount Industrial with I-beam Hardware Kit	
60-40041-00	Glulam Hardware Kit (for AVD Universal Mount or Rapid Mount Industrial)	

STEP 4: CONTROLS

Item #	Description	Qty
30-90308-00	Digital Remote Assembly	
30-04030-00	Controller 30** (see pg.22 for details)	
30-10010-00	AirLynk - BacNet (per fan)** (see pg.24 for details)	
30-10011-00	AirLynk - LonWorks (per fan)** (see pg.24 for details)	
10-04009-00	AirEffect (per fan)*** (see pg.24 for details)	

*Motor unit only
**$75 deduct per fan ordered
***Only available for Controller 30 (Not Included)

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STEP 5: STOCK DROP LENGTHS

Item #	Length (ft/in)	Length (m)	Qty
50-90200-0x	2 ft*	0.61 m	
50-90300-0x	3 ft	0.91 m	
50-90400-0x	4 ft	1.22 m	
50-90500-0x	5 ft	1.52 m	
50-90600-0x	6 ft	1.83 m	
50-90700-0x	7 ft	2.13 m	
50-90800-0x	8 ft	2.44 m	
50-90900-0x	9 ft	2.74 m	
50-91000-0x	10 ft	3.05 m	
50-9ftin-0x**	Customization fee		

x = 2 for AVD Universal Mount,
or 3 for Rapid Mount Industrial
ft = length in feet (i.e. 04 for 4 feet, 10 for 10 feet)
in = length in inches (i.e. 05 for 5 inches, 10 for 10 inches)
*2 ft is the shortest allowed drop length for AVD 550. Lengths shorter than the standard drop length are not recommended and will **not work** for some fan diameters. Consult MacroAir for more details.
To order custom Drop Length or length greater than 10 ft please call MacroAir.

DROP LENGTH is the distance from fan mounting point to the blades.

AirVolution-D fans can only be connected with a single-piece of custom length drop tube.

Measure the distance from the fan's mounting point down to the desired fan blade position and provide this information with the fan order to receive the correct custom drop length.

For custom drop lengths, order a length longer and MacroAir will cut it down to the requested length. Estimated lead time is 10 business days.

OPTIONAL: POWDER COATING

Item #	Diameter	Estimated Lead Time	Qty
60-10008-02	8 ft / 2.44 m	15 business days	
60-10010-02	10 ft / 3.05 m	15 business days	
60-10012-02	12 ft / 3.66 m	15 business days	
60-10014-02	14 ft / 4.27 m	15 business days	
60-10016-02	16 ft / 4.88 m	15 business days	
60-10018-02	18 ft / 5.49 m	15 business days	
Special Finishes			
Mounting hardware & drop length	All Diameters	15 business days	
Hub Cover	All Diameters	15 business days	

xx = ft, fan diameter (i.e. 08 for 8ft, 10 for 10 ft)

For powder coating colors, please refer to Appendix A.

Do you have a custom color in mind? Custom powder coating is available for all our blades, mounts and drop lengths.
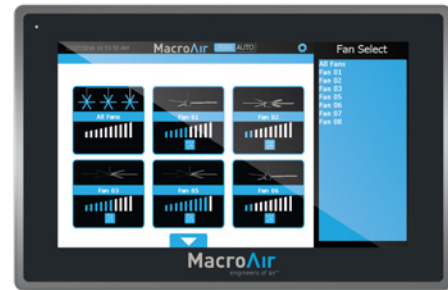
ADDITIONAL OPTION

Item #	Description	Qty
60-41002-00	AVD 550/780, AVD3 Light Kit, Building Circuit	

AirVolution-D 550

STANDARD FEATURES

- Provides a single point for individual or group fan control
- Enables run time, scheduling, grouping, and fan naming
- Secure remote login to controller via smart device or computer
- Optional automode available with AirEffect
- Password protection capabilities for scheduling, naming, and temperature/humidity

Features	Network Controller
Qty	
Item #	30-04030-00
# Fans Controlled	30 fans
Display	10.1" (16:9), TFT-LCD with LED backlight
Resolution	1024x600 pixels
Backlight life time	50000 hours
Backlight brightness	500 cd/m2
Shock	15g, half-sine, 11ms according to IEC60068-2-27
Vibration	1g, according to IEC 60068-2-6, Test Fc
Sealing front	IP65, NEMA 4X/ 12 and UL Type 4X/ 12
Sealing back (excl. enclosure)	IP20
Weight (incl. enclosure)	10 lb / 4.5 kg
Communication Protocol	MODBUS RS485
Ethernet Port	2x100 Mbit
USB Port	2
Power Supply	110-240 V
Size (incl. enclosure)	10.7 x 13.0 x 3.7 in (W x H x D) / 272 x 330 x 84 mm (W x H x D)
Operating Temperature	14º to 140ºF / -10º to +60ºC
Storage Temperature	-4º to 158ºF / -20º to +70ºC
Languages	English, Spanish, French, Malay

Note: Only one type of fan control can be used: Controller 30, Digital Remote Assembly, or AirLynk.

AirVolution-D 550

BASIC SPECIFICATIONS

AIRFOIL DIAMETER	8ft	10ft	12ft	14ft	16ft	18ft
Airfoil Style	7.375'' Extruded Anodized Aluminum Airfoil					
Number of Airfoils	6					

PERFORMANCE

	8ft	10ft	12ft	14ft	16ft	18ft
Max Speed	220 RPM	170 RPM	137 RPM	110 RPM	90 RPM	74 RPM
Recommended 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^2 [372 m^2]	6,600 ft^2 [613 m^2]	8,800 ft^2 [818 m^2]	11,000 ft^2 [1,022 m^2]	13,000 ft^2 [1,208 m^2]	15,000 ft^2 [1,394 m^2]
Sound Level dBA at Max Speed**	61	59	60	56	53	53
Sound Level dBA at Half Speed**	42	47	41	42	39	38

HANGING REQUIREMENTS

	8ft	10ft	12ft	14ft	16ft	18ft
Hanging Weight	144 lbs [65.32 kg]	153 lbs [69.4 kg]	162 lbs [73.48 kg]	172 lbs [78.02 kg]	180 lbs [81.65 kg]	188 lbs [85.28 kg]
Max Torque	20 lbf/ft [27 Nm]	28 lbf/ft [38 Nm]	36 lbf/ft [49 Nm]	44 lbf/ft [60 Nm]	55 lbf/ft [75 Nm]	58 lbf/ft [79 Nm]
Max Thrust in Reverse	4 lbs [1.8 kg]	8 lbs [3.6 kg]	12 lbs [5.4 kg]	17 lbs [7.7 kg]	22 lbs [10 kg]	22 lbs [10 kg]

MOTOR AND DRIVE TRAIN

Motor Type	Gearless Direct Drive
Equivalent Horsepower Rating	1.05 HP
Operating Temp Range	16°F [-10C°] - 140 F° [60C°]

MAX AMP DRAW

	8ft	10ft	12ft	14ft	16ft	18ft
208-240 VAC Single Phase	24A					
208-240 VAC Three Phase	14.9A					23.8A

POWER AND CONTROLS

Power Source	Single Phase or Three Phase (208-240) VAC +/-5%, 50/60 Hz
Control Options	Digital Touchpad, MacroAir Controller 30, AirLynk - BacNet / LonWorks

INSTALLATION

Mounting Hardware	Universal Mount
Drop Length	In addition to the standard drop length supplied, optional drop lengths are available in 1ft increments; guy wires required with Universal Mount; with Rapid Mount guy wires are optional

RATINGS AND COMPLIANCE

Fire and Sprinkler	NFPA Compliant
Outdoor Rating***	Rated for outdoor use

*For spacing between fan units based on the dimensions of a specific space please refer to https://macroairfans.com/airviz.

**Sound testing taken with the sensor 5 ft above the ground and 20 ft from the center of the fan at 20 ft high.

***Applicable to the fan unit only, does not include controller, control panel and accessories.

MacroAir

Fan Placement & Clearance

HVAC Diffuser with airflow UNDER fan

spacing between fans

at least 3 x diameter of the fans apart

space from wall

at least 1.5 x diameter away from the wall

space from diffuser

at least 1.5 x diameter away from intake/discharge

HVAC Diffuser with airflow ABOVE fan

space from diffuser

at least 2 x diameter away from intake/discharge