

# AIRVOLUTION-D 550

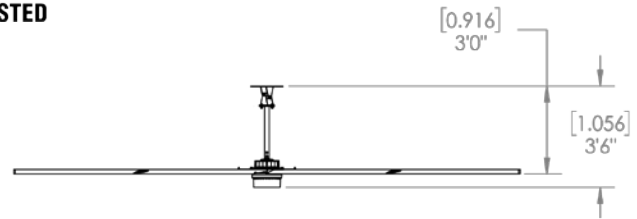


## STANDARD FEATURES

- Clearcoat anodized patented airfoil blades with centrifugal cooling
- Forward, reverse, variable speed
- Wash Down Duty rated, IP65 for indoor and outdoor use
- On-board AirBrain adapts to input voltages and optimizes motor control
- Integrates with building automation systems
- Digital wall controller with fault code access
- 50,000-hour warranty
- Safety components: safety cable, universal mount with guy wires, blade retainer links
- See the last page for product specifications



ILLUSTRATION SHOWN WITH STANDARD DROP LENGTH



## STEP 1: POWER UNIT

Item #	Options	Horsepower	Qty
P550-550L-MA	AVD 550 Low Voltage - 110-277V +/-5% Single or Three Phase, 50/60 Hz	1.05 HP	
P550-550H-MA	AVD 550 High Voltage - 380-600V +/-5% Three Phase, 50/60 Hz	1.05 HP	

## STEP 2: FAN BLADE DIAMETER

Item #	Diameter	Qty
60-10008-00	8 ft / 2.44 m	
60-10010-00	10 ft / 3.05 m	
60-10012-00	12 ft / 3.66 m	
60-10014-00	14 ft / 4.27 m	
60-10016-00	16 ft / 4.88 m	
60-10018-00	18 ft / 5.49 m	

## STEP 3: MOUNTING

Item #	Options	Qty
60-50103-00	AVD Universal Mount: I-beam Hardware Kit	
60-50109-00	Rapid Mount Industrial: 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	
30-90301-00	Analog Remote Assembly	
30-04006-00	Controller 4*	
30-04007-00	Controller 4 with 1 temperature sensor*	
30-04010-00	Controller 10*	
30-04020-00	Controller 20*	
30-04030-00	Controller 30*	
30-10010-00	AirLynk - BacNet*	
30-10011-00	AirLynk - LonWorks*	
10-80632-00	Repeater	
30-04009-00	AirEffect (per zone)**	

\*Applicable for deduction per fan ordered

\*\*Controller not included

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## STEP 5: STOCK DROP LENGTHS

Item #	Length (ft/in)	Length (m)	Qty
50-90200-02	2 ft*	0.61 m	
50-90300-02	3 ft	0.91 m	
50-90400-02	4 ft	1.22 m	
50-90500-02	5 ft	1.52 m	
50-90600-02	6 ft	1.83 m	
50-90700-02	7 ft	2.13 m	
50-90800-02	8 ft	2.44 m	
50-90900-02	9 ft	2.74 m	
50-91000-02	10 ft	3.05 m	
50-9ftin-02**	Customization fee		

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.

\*\*Customization fee is added per drop length.

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. A customization fee will be added. 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

60-102xx-00 (Flat Black)	All Diameters	15 business days	
Mounting hardware & drop length	All Diameters	15 business days	

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

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

## ADDITIONAL OPTIONS

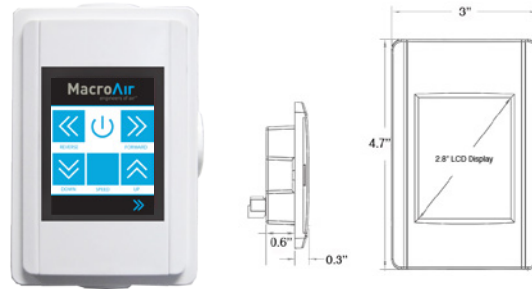
Item #	Description	Qty
10-60200-00	AVD Fuse Disconnect Switch	
10-40195-00	Noise Dampener	
60-41001-00	AVD 550/780, AVD3-450 Light Kit, Digital Remote	
60-41002-00	AVD 550/780, AVD3 Light Kit, Building Circuit	

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## CONTROL OPTIONS

### Digital Remote

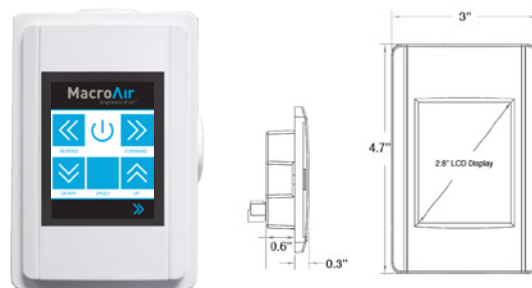
- Works with all MacroAir fan models
- Control up to 4 fans from a single point
- Simple and intuitive control
- Temperature sensor (optional) starts and stops the fan(s) according to a set temperature point
- 3-Year Warranty (see pg.33 for details)



Features	Digital Remote
Qty	
Item #	30-90308-00
# Fans Controlled	1 fan
Display	2.8 TFT
Resolution	240x320x16 pixels
Backlight life time	20,000 hours
Backlight brightness	160 cd/m2
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6
Rating (front)	IP 40 / NEMA 1
Weight (incl. enclosure)	375 g
Communication Protocol	RS 485
Power Supply	24V from fan
Size (incl. enclosure)	91.2 x 135.5 x42.0
Operating Temperature	-4° to 158°F / -20° to +70°C
Storage Temperature	-22° to 176°F / -30° to +80°C

### Controller 4

- Works with all MacroAir fan models
- Control up to 4 fans from a single point
- Simple and intuitive control
- Temperature sensor (optional) starts and stops the fan(s) according to a set temperature point
- 3-Year Warranty (see pg.33 for details)



Features	Controller 4	Controller 4 with 1 temperature sensor
Qty		
Item #	30-04006-00	30-04007-00
# Fans Controlled	Up to 4 fans	

All other specifications are the same as the Digital Remote above

# AIRVOLUTION-D 550

## MacroAir Controller 10 / 20 / 30

- Works with all MacroAir fan models
- 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	Controller 10	Controller 20	Controller 30
Qty			
Item #	30-04010-00	30-04020-00	30-04030-00
# Fans Controlled	10 fans	20 fans	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	IP20 (excl. enclosure)		
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	14° to 140°F / -10° to +60°C		
Storage Temperature	-4° to 158°F / -20° to +70°C		
Languages	English, Spanish, French, Malay		

MacroAir Controller requires one Repeater for every 5 fans.

## PROJECT

### Project Information

Job Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Distributor \_\_\_\_\_

Quantity \_\_\_\_\_

### Certified By

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Date \_\_\_\_\_

# 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					
<b>PERFORMANCE</b>						
Max Speed	220 RPM	170 RPM	137 RPM	110 RPM	90 RPM	74 RPM
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> ]
Sound Level dBA at Max Speed***	61	59	60	56	53	53
<b>WEIGHT</b>						
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]
<b>MOTOR AND DRIVE TRAIN</b>						
Motor Type	Gearless Direct Drive					
Equivalent Horsepower Rating	1.05 HP					
Max Operating Temp	140°F [60°C]					
<b>MAX AMP DRAW / RECOMMENDED FUSE</b>						
110 VAC Single Phase	9.0A / 10	13.9A / 15	13.9A / 15	13.9A / 15	15.2A / 20	15.2A / 20
120 VAC Single Phase	8.3A / 10	12.7 / 15	12.7A / 15	12.7A / 15	14.0A / 15	14.0A / 15
208-240 VAC Single Phase	4.8A / 5	7.3A / 10	7.3A / 10	7.3A / 10	8.1A / 10	8.1A / 10
277 VAC Single Phase	3.6A / 5	5.5A / 10	5.5A / 10	5.5A / 10	6.1A / 10	6.1A / 10
208-240 VAC Three Phase	3.4A / 5	5.3A / 10	5.3A / 10	5.3A / 10	6.6A / 10	5.8A / 10
380 VAC Three Phase	1.9A / 5	2.9A / 5	2.9A / 5	2.9A / 5	3.6A / 5	3.2A / 5
480 VAC Three Phase	1.5A / 5	2.3A / 5	2.3A / 5	2.3A / 5	2.9A / 5	2.5A / 5
600 VAC Three Phase	1.2A / 5	1.8A / 5	1.8A / 5	1.8A / 5	2.3A / 5	2.0A / 5
<b>POWER AND CONTROLS</b>						
Power Source High	Three Phase (380-600) VAC +/-5%, 50/60 Hz					
Power Source Low	Single Phase or Three Phase (120-277) VAC +/-5%, 50/60 Hz					
Control Options	Digital Touchpad, MacroAir Controller 4, 10, 20, 30, AirLynk - BacNet / LonWorks					
<b>INSTALLATION</b>						
Mounting Hardware	Universal Mount					
Drop Length	In addition to the standard drop length supplied, optional drop lengths are available in 1in increments; guy wires required with Universal Mount; with Rapid Mount guy wires are optional					
<b>RATINGS AND COMPLIANCE</b>						
Fire and Sprinkler	NFPA Compliant					
Wash Down Duty Rating	IP65					
Certifications	UL 507, CE					

\*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 at 20 ft high.