

The three-blade design of the AVD3 reduces weight, friction, and raw materials, which in turn minimizes the strain on the building, your energy consumption, and your budget. But can three blades do the job? Yes! Just like a wind turbine, we designed the AVD3 to be the optimal balance between weight, materials, and efficiency.



STANDARD FEATURES

- · Direct Drive motor
- · Clearcoat anodized airfoil blades with centrifugal cooling
- · Forward, reverse, variable speed
- · Rated for indoor and outdoor use*
- Capable of Building Automation Integration (with AirLynk upgrade) and fire alarm
- · Digital wall controller with fault code access
- Safety Components: safety cable, Universal Mount with guy wires, blade retainer links



STEP 1: POWER UNI	T				
Item#	Options				
M300-0025-MA	8-14 ft AVD3 Power Unit, .75 HP Equivalent				
M300-0035-MA	16-24 ft AVD3 Power Unit, 1 HP Equivalent				
STEP 2: BLADES					
Item #	Diameter				
60-30008-00	8 ft / 2.44 m				
60-30010-00	10 ft / 3.05 m				
60-30012-00	12 ft / 3.66 m				
60-30014-00	14 ft / 4.27 m				
60-30016-00	16 ft / 4.88 m				
60-30018-00	18 ft / 5.49 m				
60-30020-00	20 ft / 6.10 m				
60-30024-00	24 ft / 7.32 m				
STEP 3: VOLTAGE/P					
Item#	Options	Qty			
33-21010-00	208-240V Single Phase, 50/60 Hz AVD3 DROP ENCL (for use with Universal Mount)				
33-21030-00	208-240V Three Phase, 50/60 Hz AVD3 DROP ENCL (for use with Universal Mount)				
33-41030-00	480V Three Phase, 50/60 Hz AVD3 DROP ENCL (for use with Universal Mount)				
35-21010-00	208-240V Single Phase, 50/60 Hz AVD3 SCHNEIDER CONT PNL (for use with Rapid Mount Industrial)				
35-21030-00	208-240V Three Phase, 50/60 Hz AVD3 SCHNEIDER CONT PNL (for use with Rapid Mount Industrial)				
35-41030-00	480V Three Phase, 50/60 Hz AVD3 SCHNEIDER CONT PNL (for use with Rapid Mount Industrial)				
STEP 4: MOUNTING					
Item#	Options	Qty			
60-50150-00	AVD Universal Mount with I-beam Hardware Kit				
60-40049-00	Glulam Hardware Kit				
60-50136-00	Rapid Mount Industrial with I-Beam Hardware Kit (requires drive in control panel, offboard)				
STEP 5: CONTROLS					
Item#	Description	Qty			
30-90308-00	Digital Remote Assembly (Standard)				
30-04006-00	Controller 4				
30-04007-00	Controller 4 + Single Temperature Sensor				
30-04030-00	Controller 30				
30-10012-00	AirLynk - BacNet				
30-10011-00	AirLynk - LonWorks				
30-04030-02	Dual Control Enabled Controller 30 (requires AirLynk-BacNet)				
04030-02	Dual Control Enabled Controller 30 (requires AirLynk-BacNet)				

^{*}Motor unit only, consult with a MacroAir sales specialist for best practice





STEP 6: STOCK DROP LENGTHS

Item #	Length (ft/in)*	Length (m)	Qty
51-X0200-02	2 ft**	0.61 m	
51-X0300-02	3 ft (Standard)	0.91 m	
51-X0400-02	4 ft	1.22 m	
51-X0500-02	5 ft	1.52 m	
51-X0600-02	6 ft	1.83 m	
51-X0700-02	7 ft	2.13 m	
51-X0800-02	8 ft	2.44 m	
51-X0900-02	9 ft	2.74 m	
51-X1000-02	10 ft	3.05 m	
51-Xftin-02 Customization fee			

^{*} Lengths are +- 1" depending on power unit selection/fan diameter.

X= substitute D for drops with UMH mount, F for drops with Rapid Mount Industrial (i.e. 51-F0500-02 describes a 5' drop for use with a 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)

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

AirVolution-D3 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.

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

OPTIONAL: POWDER COATING					
Item #	Diameter	Estimated Lead Time	Qty		
60-30008-02	8 ft / 2.44 m	15 business days			
60-30010-02	10 ft / 3.05 m	15 business days			
60-30012-02	12 ft / 3.66 m	15 business days			
60-30014-02	14 ft / 4.27 m	15 business days			
60-30016-02	16 ft / 4.88 m	15 business days			
60-30018-02	18 ft / 5.49 m	15 business days			
60-30020-02	20 ft / 6.07 m	15 business days			
60-30024-02	24 ft / 7.32 m	15 business days			



^{*}IEC Compliance requires a fused disconnect switch. Fuse selection is input voltage specific, so fuses are not provided with purchase of a disconnect.



^{**2} ft is the shortest allowed drop length for AVD3. Lengths shorter than the standard drop length are not recommended and will not work for some fan diameters. Consult MacroAir for more details.

AVD3



BASIC SPECIFICATIONS

AIRFOIL DIAMETER	8ft	10ft	12ft	14ft	16ft	18ft	20ft	24ft	
Airfoil Style			7.375	" Extruded Anoc	lized Aluminum	Airfoil			
Number of Airfoils		3							
PERFORMANCE									
Max Speed	178 RPM	170 RPM	135 RPM	100 RPM	98 RPM	83 RPM	65 RPM	50 RPM	
Recommended Spacing*	50 ft [15.2 m]	55 ft (16.8 m)	60 ft (18.3 m)	70 ft [21.3 m]	75 ft [22.9 m]	80 ft [24.4 m]	90 ft [27.4 m]	95 ft [29 m]	
Max Affected Area	4,150 ft ² [385 m ²]	5,200 ft² [483 m²]	6,700 ft ² [622 m ²]	8,900 ft ² [827 m ²]	9,600 ft² [892 m²]	12,600 ft ² [1,171 m ²]	15,400 ft ² [1,431 m ²]	17,000 ft ² [1,579 m ²]	
Sound Level dBA at Max Speed**	63	58	57	55	55	55	54	33	
Carrier/Switching Frequency**		16,000Hz							
HANGING REQUIREMENTS									
Hanging Weight	102.2 lbs [46.38 kg]	107.3 lbs [48.67 kg]	112.4 lbs [50.98 kg]	117.5 lbs [53.30 kg]	131.8 lbs [59.78 kg]	136.9 lbs [62.10 kg]	142.0 lbs [64.41 kg]	147.1 lbs [66.72 kg]	
Max Torque	8 ft-lb [11 Nm]	16 ft-lb [22 Nm]	22 ft-lb [30 Nm]	25 ft-lb [34 Nm]	33 ft-lb [45 Nm]	36 ft-lb [49 Nm]	42 ft-lb [57 Nm]	40 ft-lb [55 Nm]	
Max Thrust in Reverse	4 lbs [1.9 kg]	9 lbs [4.1 kg]	11 lbs [5.0 kg]	14 lbs [6.4kg]	18 lbs [8.2 kg]	20 lbs [9.1 kg]	22 lbs [10.0 kg]	18 lbs [8.2kg]	
MOTOR AND DRIVE TRAIN									
Motor Type		Gearless Direct Drive							
Equivalent Horsepower Rating		3/4 HP (8ft - 14ft) / 1.0 HP (16ft - 24ft)							
Operating Temp Range				16°F [-10C°] -	140 F° [60C°]				
MAX AMP DRAW									
208-240V Single Phase	1.4A	2.6A	2.7A	2.7A	2.9A	3A	3.1A	2.3A	
208-240V Three Phase	0.8A	1.3A	1.6A	1.7A	1.7A	1.7A	1.7A	1.2A	
480 V Three Phase	0.6A	0.9A	1.0A	1.0A	1.0A	1.0A	1.0A	0.7A	
POWER AND CONTROLS									
Power Source		Single Phase or Three Phase 208-240 VAC +/-5%, 50/60 Hz, Three Phase 480 VAC +-5%, 50/60 Hz							
Control Options		Digital Touchpad, MacroAir Controller 4, Controller 30, AirLynk - BacNet							
INSTALLATION									
Mounting Hardware			Uni	versal Mount, Ra	apid Mount Indus	strial			
Drop Length	In addition to the standard drop length supplied, optional drop lengths are available in 1ft increments; all drop lengths require guy wires except when used with Rapid Mount Industrial								
RATINGS AND COMPLIANCE									
Fire and Sprinkler	NFPA Compliant								
Outdoor Rating***	Rated for outdoor use								
Certifications		Pending							

^{*}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. Carrier frequency will be audible to some listeners and is considered normal during operation. For more information on fan selection with regard to decible level and carrier frequency, please see page XXXX.

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