

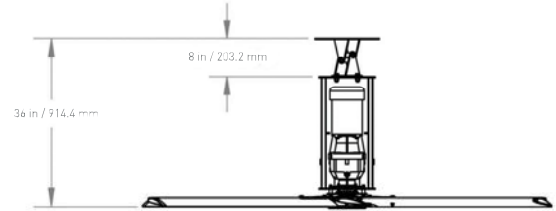
Z Series

The ultimate utility fan, the MacroAir Z Series industrial fan uses tried and true technology which is proven to last over time. The Z Series uses a reliable gearbox-driven power unit to provide huge airflow at a great value. With basic features and accessories, the Z Series industrial fan will meet any budget while performing better than any fan in its class.



STANDARD FEATURES

- Integrated Gearmotor
- Clearcoat anodized airfoil blades
- Forward, reverse, variable speed
- Variable frequency drive- basic fire alarm integration
- Analog remote for one-to-one fan control
- Safety Components: safety cable, Universal Mount with guy wires, blade retainer links



STEP 1: DIAMETERS

Item #	Diameter	Qty
MZ08-0100-MA	8 ft Power Unit, 1.0 HP	
MZ10-0100-MA	10 ft Power Unit, 1.0 HP	
MZ12-0100-MA	12 ft Power Unit, 1.0 HP	
MZ14-0100-MA	14 ft Power Unit, 1.0 HP	
MZ16-0100-MA	16 ft Power Unit, 1.0 HP	
MZ18-0100-MA	18 ft Power Unit, 1.0 HP	
MZ20-0150-MA	20 ft Power Unit, 1.5 HP	
MZ24-0200-MA	24 ft Power Unit, 2.0 HP	

STEP 2: VOLTAGE

Item #	Voltage Options	Qty
1xx1-MA*	100-120V Single Phase, 50/60 Hz	
2xx1-MA	208-240V Single Phase, 50/60 Hz	
2xx3-MA	208-240V Three Phase, 50/60 Hz	
4xx3-MA	480V Three Phase, 50/60 Hz	
6xx3-MA	600V Three Phase, 50/60 Hz	

xx=horsepower

STEP 3: MOUNTING

Item #	Mount Options	Qty
60-90006-00	Series Universal Mount: I-beam Hardware Kit (Standard)	
60-40041-00	Glulam Hardware Kit (for Universal Mount)	

STEP 4: CONTROLS

Item #	Description	Qty
30-90301-00	Analog Remote Assembly (Standard)	

*Only available for 8ft-18ft

Z Series

OPTIONAL: EXTENSIONS

Item #	Length (ft/in)	Length (m)	Qty
51-80100-02	1 ft	0.30 m	
51-80200-02	2 ft	0.61 m	
51-80300-02	3 ft	0.91 m	
51-80400-02	4 ft	1.22 m	
51-80500-02	5 ft	1.52 m	
51-80600-02	6 ft	1.82 m	
51-80700-02	7 ft	2.13 m	
51-80800-02	8 ft	2.44 m	
51-80900-02	9 ft	2.74 m	
(51-8ftin-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)

To order Extension greater than 10 ft, please call MacroAir.

Z Series EXTENSIONS are an additional drop tube attached to the top of the frame. Without an **Extension**, the total drop for a **Z Series** fan is 3 ft (fan, frame, and mount)

Z Series fans can only be connected with a single-piece of custom length extension.

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
60-10008-02	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	
60-10020-02	20 ft / 6.07 m	15 business days	
60-10024-02	24 ft / 7.32 m	15 business days	

Special Finishes

Mounting Hardware & Frame	All Diameters	15 business days	
Extension (where applicable)	All Diameters	15 business days	

For powder coating colors, please refer to Appendix A.

ADDITIONAL OPTIONS

Item #	Description	Qty
-FD	Food-Grade / Stainless Steel - 1.0 HP*	
-EX	Explosion Proof Motor -1.0 HP* (Separate Motor and Gearbox)	

*Only Available for 8ft-18ft

Z Series

BASIC SPECIFICATIONS

AIRFOIL DIAMETER	8ft	10ft	12ft	14ft	16ft	18ft	20ft	24ft
Airfoil Style	7.375" Extruded Anodized Aluminum Airfoil							

Number of Airfoils	6							
--------------------	---	--	--	--	--	--	--	--

PERFORMANCE

Max Speed	202 RPM	162 RPM	129 RPM	103 RPM	84 RPM	70 RPM	70 RPM	62 RPM
Recommended Spacing*	50 ft [15.2 m]	60 ft [18.3 m]	65 ft [19.8 m]	70 ft [21.3 m]	85 ft [25.9 m]	90 ft [27.4 m]	100 ft [30.5 m]	110 ft [33.5 m]
Max Affected Area	3,600 ft ² [336 m ²]	6,000 ft ² [557 m ²]	8,000 ft ² [743 m ²]	10,000 ft ² [929 m ²]	12,000 ft ² [1,115 m ²]	14,000 ft ² [1,301 m ²]	18,000 ft ² [1,673 m ²]	20,000 ft ² [1,858 m ²]
Sound Level dBA at Max Speed**	58	58	58	58	58	58	61	61

HANGING REQUIREMENTS

Hanging Weight	171 lbs [77.56 kg]	178 lbs [80.74 kg]	189 lbs [85.73 kg]	195 lbs [88.45 kg]	202 lbs [91.63 kg]	208 lbs [94.35 kg]	217 lbs [98.43 kg]	270 lbs [122.5 kg]
Max Torque	18 lbf/ft [24 Nm]	24 lbf/ft [33 Nm]	31 lbf/ft [42 Nm]	43 lbf/ft [58 Nm]	40 lbf/ft [54 Nm]	58 lbf/ft [79 Nm]	88 lbf/ft [119 Nm]	126 lbf/ft [171 Nm]
Max Thrust in Reverse	4 lbs [1.8 kg]	6 lbs [2.7 kg]	9 lbs [4.1 kg]	14 lbs [6.4 kg]	15 lbs [6.8 kg]	21 lbs [9.5 kg]	31 lbs [14.1 kg]	44 lbs [20 kg]

MOTOR AND DRIVE TRAIN

Motor Type	AC induction Motor with a sealed 2-stage helical gear box							
Equivalent Horsepower Rating	1.0 HP (8-18ft) / 1.5 HP (20ft) / 2.0 HP (24ft)							
Operating Temp Range	16°F [-10C°] - 104 F° [40C°]							

MAX AMP DRAW

100-120V Single Phase	16.6A	16.6A	16.6A	16.6A	16.6A	16.6A	N/A	N/A
208-240V Single Phase	20.2A	20.2A	20.2A	20.2A	20.2A	20.2A	20.2A	20.2A
208-240V Three Phase	10.8A	10.8A	10.8A	10.8A	10.8A	10.8A	10.8A	10.8A
480V Three Phase	4.3A	4.3A	4.3A	4.3A	4.3A	4.3A	4.3A	4.3A
600V Three Phase	2A	2A	2A	2A	2A	2A	N/A	N/A

POWER AND CONTROLS

Power Source	Single Phase 100-120 VAC 50/60 Hz / Single Phase 208-240 VAC 50/60 Hz / Three Phase 208-240 VAC 50/60 Hz / Three Phase 480 VAC 50/60 Hz / Three Phase 600 VAC 50/60 Hz							
Control Options	Analog Remote							

INSTALLATION

Mounting Hardware	Universal Mount Hardware							
Extension	Optional extensions are available in 1 ft increments; all drop lengths require guy wires							

RATINGS AND COMPLIANCE

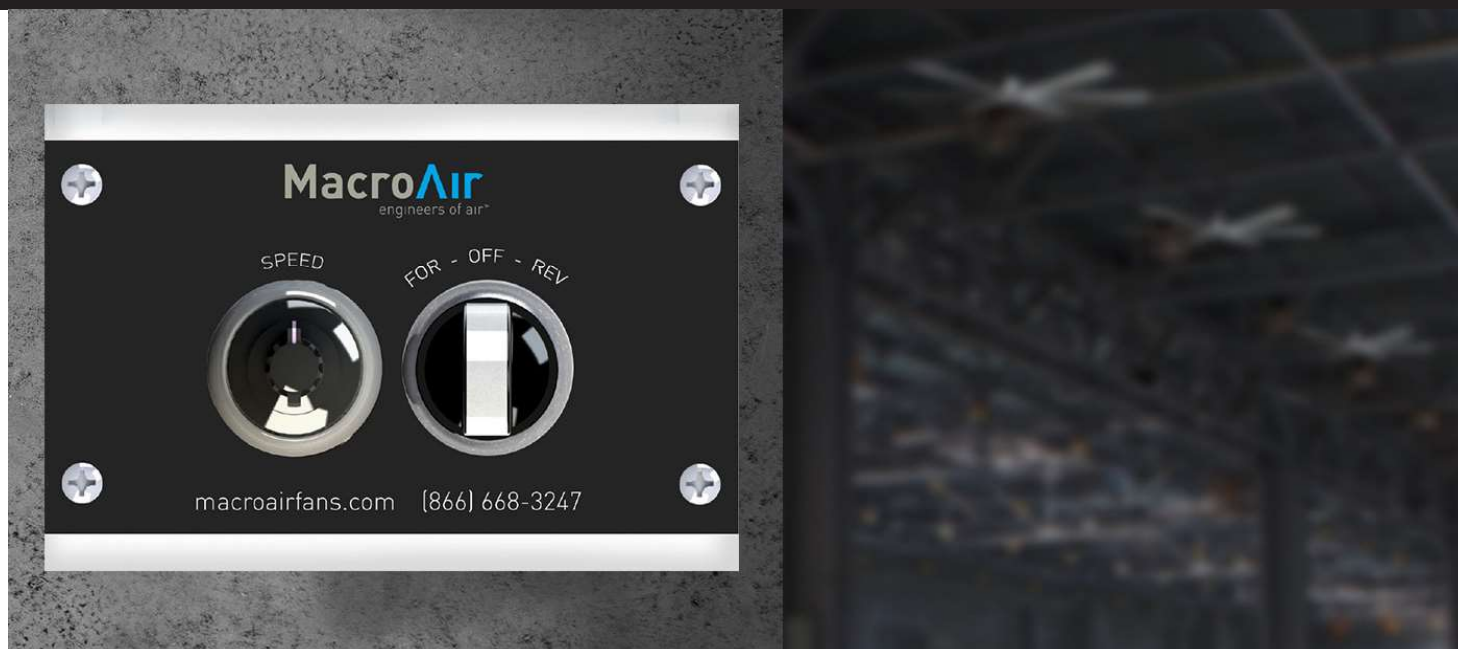
Fire and Sprinkler	NFPA Compliant							
Wash Down Duty Rating***	IP55							
Certifications	UL 507							

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

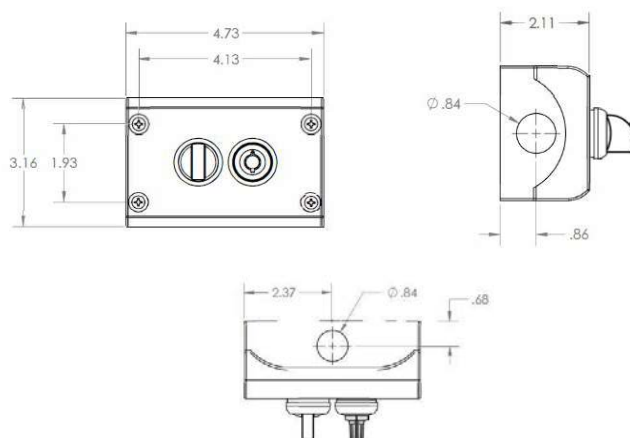
**Sound testing taken with the sensor 5 ft above the ground and 20 ft from the center of the fan at 20 ft high.

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

MacroAir Controllers - Analog Remote

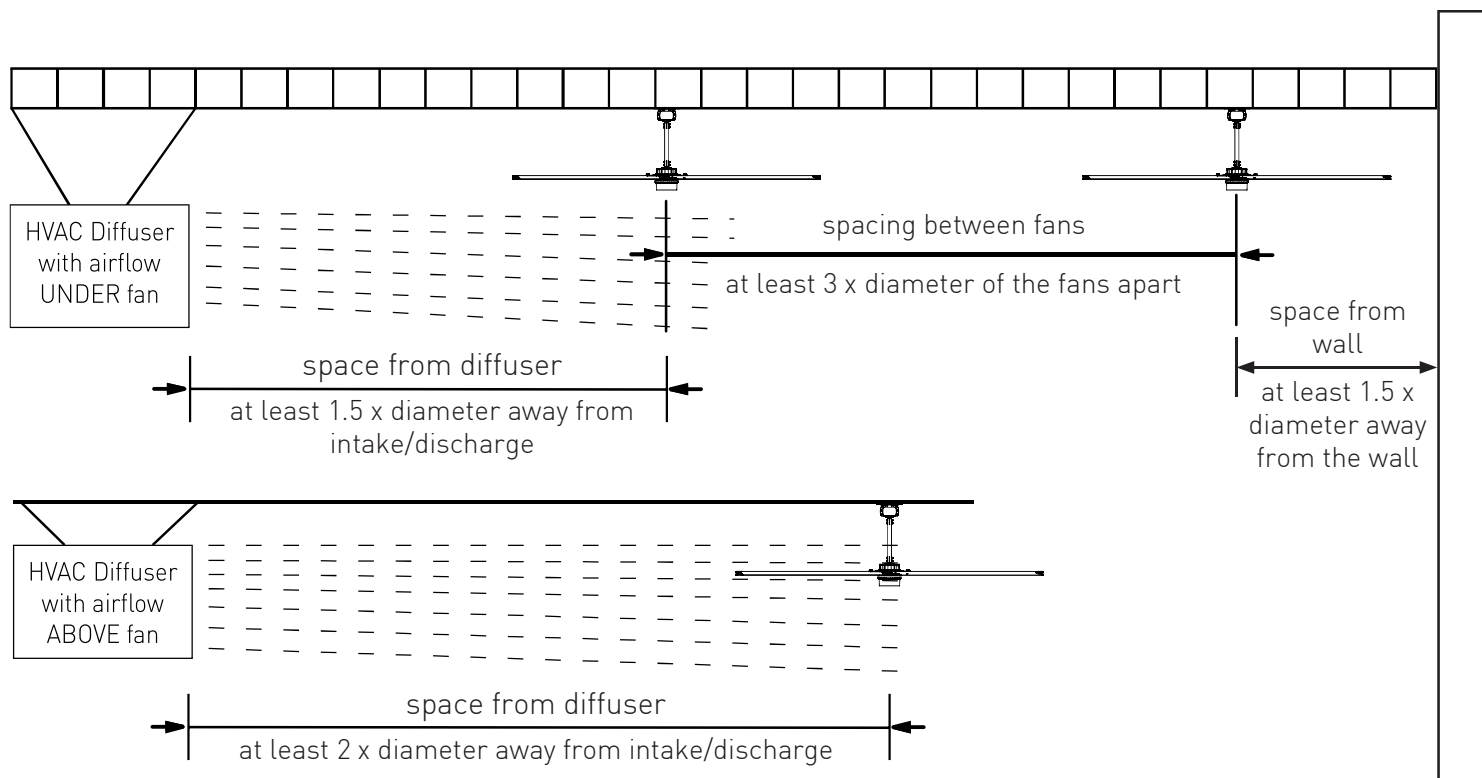


- Available for Z Series only
- Controls 1 fan
- Simple and intuitive variable speed control



Features	Analog Remote
Item #	30-90301-00
# Fans Controlled	1 fan
Display	2.8 TFT
Rating	IP 65
Weight (incl. enclosure)	375 g
Communication Protocol	0-10V
Size (incl. enclosure)	91.2 x 135.5 x 42.0
Operating Temperature	16° to 158°F / -10° to +70°C
Storage Temperature	-22° to 176°F / -30° to +80°C

Fan Placement & Clearance



General Notes:

Dimension "A": The smaller the distance between the light and the blade, the higher concentration and frequency of shuttering. So the greater distance "A" is from the fan blade, the less the shuttering effect.

Dimension "B": The closer the light is located to the center of the fan, the higher the frequency of shuttering.

Ambient light: Another variable increasing the shuttering effect is the amount of ambient light available. The more lights, the less the effect. As shown, the more overlapping patterns the less shuttering/strobing. The type of light can also influence the effect. For example, a domed light is more sensitive than a fluorescent tube.

Summary: Variables that affect strobing are (1) blade to light height, (2) the fan center to light dimension, and (3) the amount of ambient light within the space. To minimize the possible negative effects of strobing, follow all MacroAir installation instructions including clearance requirements.

