AirVolution-D 370

The next generation of air movement is here and engineered for maximum performance with peak efficiency. Ideal for ceiling heights as low as 12 feet, the AirVolution-D 370 commercial ceiling fan is the perfect airflow solution for cooling your smaller spaces. A sleek design and custom color options add to its appeal, making these fans the most attractive ceiling fans on the market.
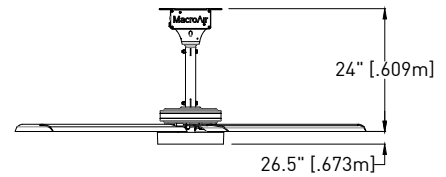
STANDARD FEATURES

- Ultra Efficient, PMAC Direct Drive motor
- Revolutionary integrated drive/mount/enclosure system*
- Clearcoat anodized blades
- 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

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ILLUSTRATION SHOWN WITH STANDARD DROP LENGTH

24" [.609m]

26.5" [.673m]

Note: Custom drop lengths greater than 5 ft require guy wires

STEP 1: POWER UNIT

Item #	Options	Qty
M370-0025-MA	AVD 370 Power Unit, 3/4 HP Equivalent	

STEP 2: FAN BLADE DIAMETER

Item #	Diameter	Qty
60-20006-00	6 ft / 1.83 m	
60-20008-00	8 ft / 2.44 m	
60-20010-00	10 ft / 3.05 m	
60-20012-00	12 ft / 3.66 m	

STEP 3: VOLTAGE

Item #	Diameter	Qty
30-05006-00	100-120V Single Phase, 50/60Hz	
31-21010-00	208-240V Single Phase, 50/60Hz	

STEP 4: MOUNTING

Item #	Options	Qty
60-50143-00	Rapid Mount Commercial with I-beam Hardware Kit (up to 5ft drop length) (Standard)	
60-50142-00	AVD Universal Mount with I-beam Hardware Kit	
60-40049-00	Glulam Hardware Kit	

STEP 5: CONTROLS

Item #	Description	Qty
30-90308-00	Digital Remote Assembly (Standard)	
30-04006-00	Controller 4	
30-04007-00	Controller 4 + Temperature Sensor	
30-04030-00	Controller 30	
30-10012-00	AirLynk - BacNet	
30-04030-02	Dual Control Enabled Controller 30 (requires AirLynk-BacNet)	

* Patent Pending - U.S. Provisional Application No. 63/157,965
** Pending UL 507
*** Motor unit only. Consult with a MacroAir sales specialist for best practice.

STEP 5: STOCK DROP LENGTHS

Item #	Length (ft/in)	Length (m)	Qty
5x-E01in-02	1 ft*	0.30 m	
5x-y0200-02	2 ft (Standard)	0.61 m	
5x-y0300-02	3 ft	0.91 m	
5x-y0400-02	4 ft	1.22 m	
5x-y0500-02	5 ft	1.52 m	
5x-y0600-02	6 ft	1.83 m	
5x-y0700-02	7 ft	2.13 m	
5x-y0800-02	8 ft	2.44 m	
5x-y0900-02	9 ft	2.74 m	
5x-y1000-02	10 ft	3.05 m	
5x-yftin-02**	Customization fee		

x = 0 for Rapid Mount Commercial,
 or 1 for AVD Universal Mount
y = D for Rapid Mount Commercial,
 or C for AVD Universal Mount

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)
*1 ft is the shortest allowed drop length for AVD-370. Lengths shorter than the standard drop length are not recommended and will **not work** for some fan diameters. Consult MacroAir for more details.

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. Guy wires kits are provided and required in all situations where a drop length of greater than 5 feet.

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
60-20006-02	6 ft / 1.83 m	15 business days	
60-20008-02	8 ft / 2.44 m	15 business days	
60-20010-02	10 ft / 3.05 m	15 business days	
60-20012-02	12 ft / 3.66 m	15 business days	
Special Finishes			
60-201yy-00 (Light Oak Wood Grain)	All Diameters	--	
Mounting hardware & drop length	All Diameters	15 business days	
Hub Cover	All Diameters	15 business days	

yy = ft, fan diameter

For powder coating colors, please refer to Appendix A.

ADDITIONAL OPTIONS

Item #	Description	Qty
10-60200-00	AVD Fuse Disconnect Switch*	

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

AirVolution-D 370

BASIC SPECIFICATIONS

AIRFOIL DIAMETER	6ft	8ft	10ft	12ft
Airfoil Style	4.5" Extruded Anodized Aluminum Airfoil			
Number of Airfoils	6			

PERFORMANCE

	6ft	8ft	10ft	12ft
Max Speed	164 RPM	140 RPM	94 RPM	65 RPM
Recommended Spacing*	28 ft [8.5 m]	36 ft [11 m]	40 ft [12.2 m]	48 ft [14.6 m]
Max Affected Area	1,400 ft² [130 m²]	2,400 ft² [223 m²]	3,200 ft² [297 m²]	4,000 ft² [371 m²]
Sound Level dBA at Max Speed**	45	55	56	48

HANGING REQUIREMENTS

	6ft	8ft	10ft	12ft
Hanging Weight	71 lbs [32.21 kg]	79 lbs [35.83 kg]	86 lbs [39.01 kg]	93 lbs [42.18 kg]
Max Torque	4 ft-lb [5 Nm]	13 ft-lb [18 Nm]	20 ft-lb [27 Nm]	19 ft-lb [26 Nm]
Max Thrust in Reverse	2 lbs [0.9 kg]	4 lbs [1.8 kg]	6 lbs [2.7 kg]	7 lbs [3.2 kg]

MOTOR AND DRIVE TRAIN

Motor Type	Gearless Direct Drive			
Equivalent Horsepower Rating	3/4 HP			
Operating Temp Range	16°F [-10C°] - 122 F° [50C°]			

MAX AMP DRAW / RECOMMENDED FUSE

	6ft	8ft	10ft	12ft
110 VAC Single Phase***	2.7A / Fuse N/A	2.7A / Fuse N/A	2.7A / Fuse N/A	2.7A / Fuse N/A
208 VAC Single Phase	1.4A / 2.5A	1.4A / 2.5A	1.4A / 2.5A	1.4A / 2.5A

POWER AND CONTROLS

Power Source Low	Single Phase 110-120 VAC 50/60 Hz / Single Phase 208-240 VAC 50/60 Hz			
Control Options	Digital Touchpad, MacroAir Controller 30, AirLynk - BacNet			

INSTALLATION

Mounting Hardware	Rapid Mount Commercial			
Drop Length	In addition to the standard drop length supplied, optional drop lengths are available in 1ft increments; total drop lengths 5ft and greater require Universal Mounting Hardware with guy wires			

RATINGS AND COMPLIANCE

Fire and Sprinkler	NFPA Compliant			
Outdoor Rating****	Rated for outdoor use			
Certifications	UL 507 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.
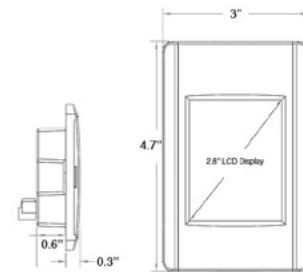
***Preliminary Test Results

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

MacroAir Controllers - Digital Remote

- Standard on all MacroAir fan models (Except AirLegacy)
- Simple and intuitive control
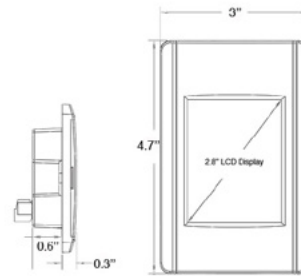- Easy ground-level troubleshooting and diagnostics

Features	Digital Touchpad Remote
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

Note: Only one type of controller can be used when selecting Controller 4, Digital Remote Assembly or Analog Remote Assembly. AirLynk (BacNet) can be used as a stand alone, or paired with a Dual Control Enabled Controller 30 (see Dual Control page) or with Local Override Remotes for some fan models (see Local Override page)

- Available upgrade for all MacroAir fan models (Except AirLegacy)
- Control up to 4 fans from a single point
- Control fans individually, independent of speed & direction
- Simple and intuitive control
- Temperature sensor (optional upgrade) starts and stops the fan(s)

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

Note: Only one type of controller can be used when selecting Controller 4, Digital Remote Assembly or Analog Remote Assembly. AirLynk (BacNet) can be used as a stand alone, or paired with a Dual Control Enabled Controller 30 (see Dual Control page) or with Local Override Remotes for some fan models (see Local Override page)
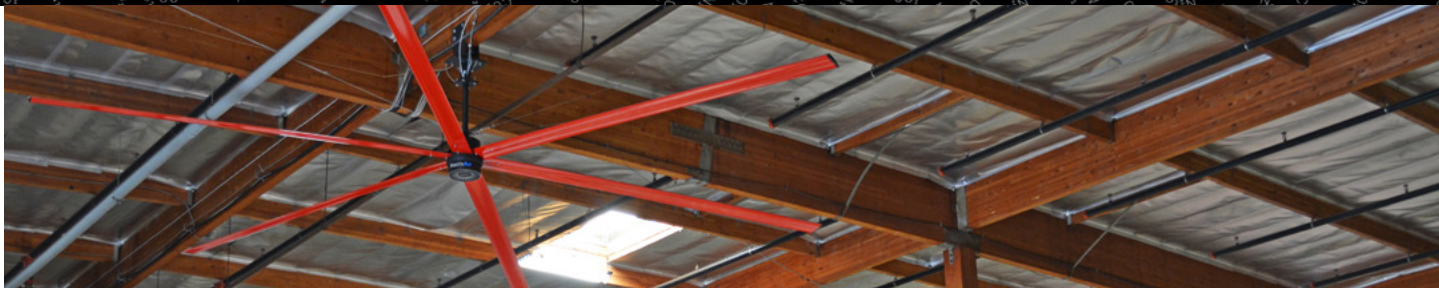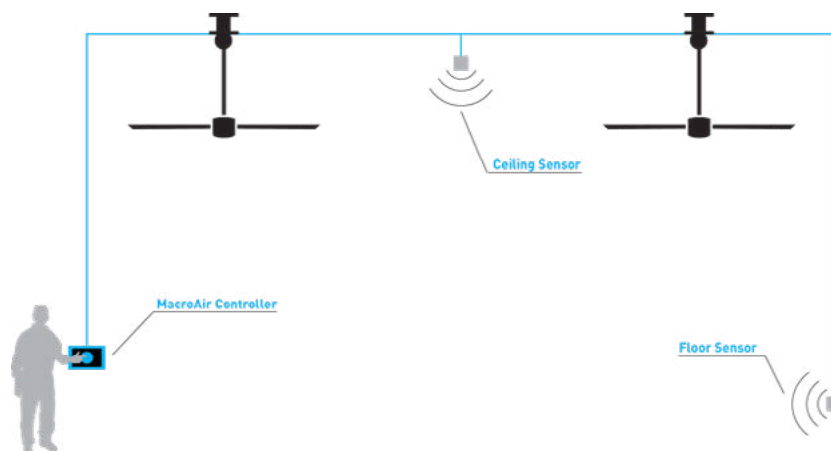
STANDARD FEATURES

- Available upgrade for all MacroAir fan models (except AirLegacy)
- 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 auto mode available with AirEffect
- Password protection capabilities for scheduling, naming, and temperature/humidity (with upgrade to AirEffect)

Features	Controller 30
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	14° to 140°F / -10° to +60°C
Storage Temperature	-4° to 158°F / -20° to +70°C
Languages	English, Spanish, French, Malay

Note: Only one type of controller can be used when selecting Controller 4, Digital Remote Assembly or Analog Remote Assembly. AirLynk (BacNet) can be used as a stand alone, or paired with a Dual Control Enabled Controller 30 (see Dual Control page) or with Local Override Remotes for some fan models (see Local Override page)

AirEffect Temperature Control

STANDARD FEATURES

AirEffect (only available with Controller 30) is an optional control system that senses and automatically maintains a desired room temperature. AirEffect gages the heat index by measuring the temperature and humidity at the ceiling and floor. To achieve the desired temperature, AirEffect takes the heat index and calculates the fan's ideal operating speed and direction and runs the fans accordingly. Simply setup AirEffect to the desired temperature range and enjoy a consistently comfortable environment.

- Senses and maintains desired room temperature
- Measurers temperature and humidity at two points (ceiling & floor)
- Calculates heat index through temperature and humidity calculations
- Runs fans in reverse or forward direction in response to heat index
- Compatible with all fans (except AirLegacy)
- Independent, external sensors allow the controllers to be mounted in a different room than the fans and sensors

Features	AirEffect (up to 4 zones)
Item #	30-04009-00
Number of Sensors	2 (1 floor & 1 ceiling)
Measured temperatures	-40 through +125 °C (±2 to ±4 %)
Measured humidity	0 through 100% RH (±2 to ±4 %)
Communication Protocol	MODBUS RS485

*Controller not included

Gives the ability to control your fans through BACnet® (MS/TP or IP) and LonWorks®.

BACnet and LonWorks are both protocols used to automate or manage buildings systems (commonly called a BMS or BAS). Our fans use MODBUS to communicate and the correct use of AirLynk, MacroAir's interface, will allow the integration of our fans into a BMS/BAS. A BMS/BAS enables you to run the fans in conjunction with your HVAC system to help save energy costs.

Our proven solution is AirLynk, an external, high-performance building automation multi-protocol interface that is pre configured to communicate between any MacroAir fan and various building automation protocols including: BACnet®MS/TP, BACnet/IP, Modbus TCP/IP, and LonWorks®.

Successful integration of any MacroAir fan with a BMS/BAS is dependent upon following **these guidelines**:

- **Identify the BMS and its protocol** before the purchase order is placed. This allows the fans to be pre programmed, dramatically reducing installation errors and integration time.

- Strictly adhere to the included installation manual to eliminate issues that will occur from wrong types of wire, improper wire terminations or wire routing.

- We highly recommend engaging our Controls Engineers to visit the site for fan start-up to ensure a smooth and successful integration. Our experience has found that many installers are unfamiliar with the subtle but critical differences between BMS systems, interfaces, fan models, connection methods and best practices. For a nominal fee plus travel expenses, one of our Controls Engineers can be on site to ensure a smooth and successful start-up. For more information about this service, please inquire with our Technical Services Department.

To Order BMS enabled fans and AirLynk please do the following:

- Identify the BMS network
- Discuss your network with MacroAir's Control Engineers
- Order one AirLynk to connect up to 30 fans

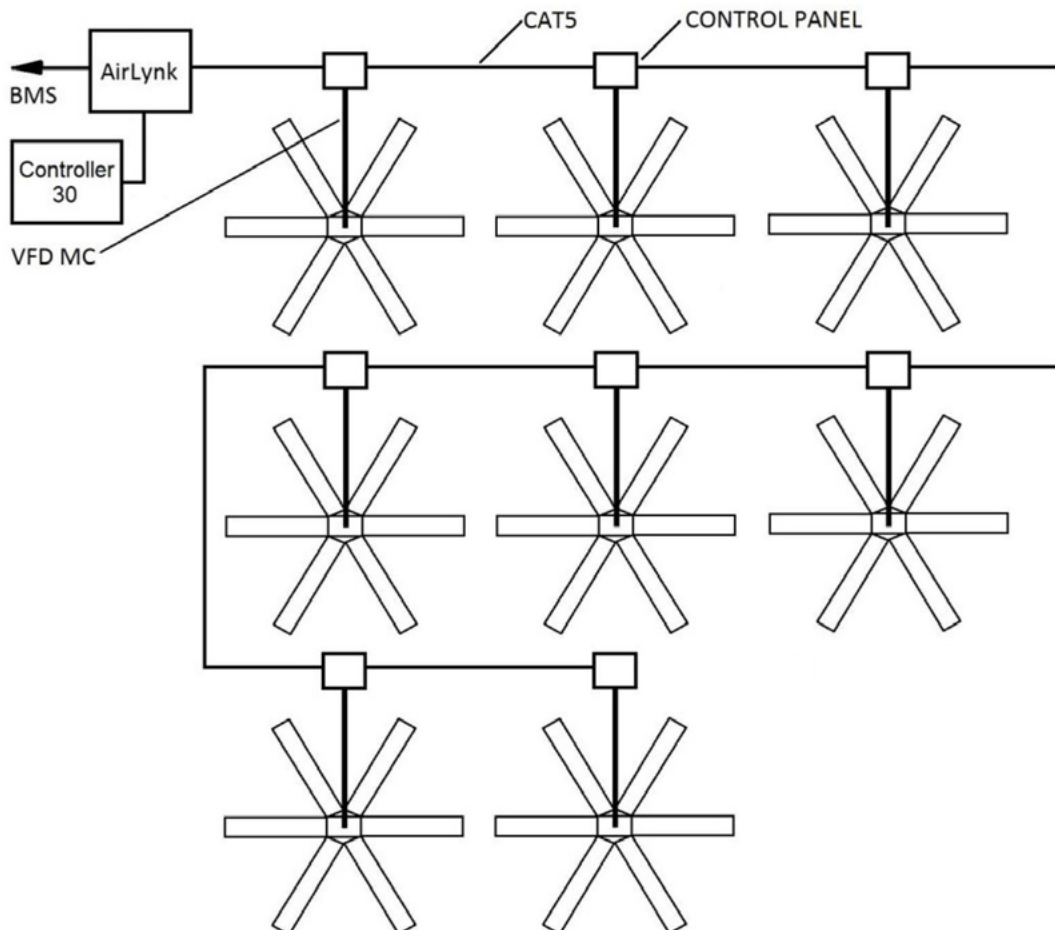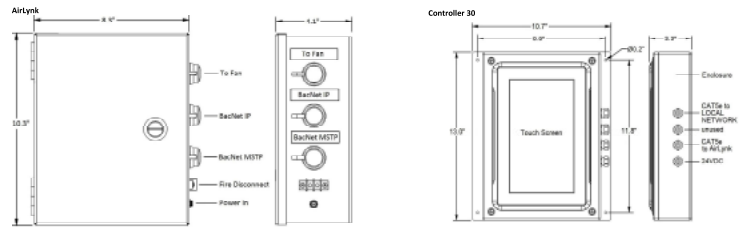| Item #	Description
30-10012-00	AirLynk - BACnet, (Works on all Fan Lines, except AirLegacy), Up to 30 Fans per AirLynk
30-10011-00	AirLynk - LonWorks, (Works on all Fan Lines, except AirLegacy), Up to 30 Fans per AirLynk
30-90315-00	Local Override Remote (each fan) for BMS (Works on all Fan Lines, except AirLegacy and AVD 370)
30-04030-02	Dual Control Enabled Controller 30 (Works on all Fan Lines, except AirLegacy) Up to 30 Fans per AirLynk
10-80632-00	Repeater (required for some older model fans; contact your sales rep for details)

Note: Only one type of controller can be used when selecting Controller 4, Digital Remote Assembly or Analog Remote Assembly. AirLynk (BacNet) can be used as a stand alone, or paired with a Dual Control Enabled Controller 30 (see Dual Control page) or with Local Override Remotes for some fan models (see Local Override page)
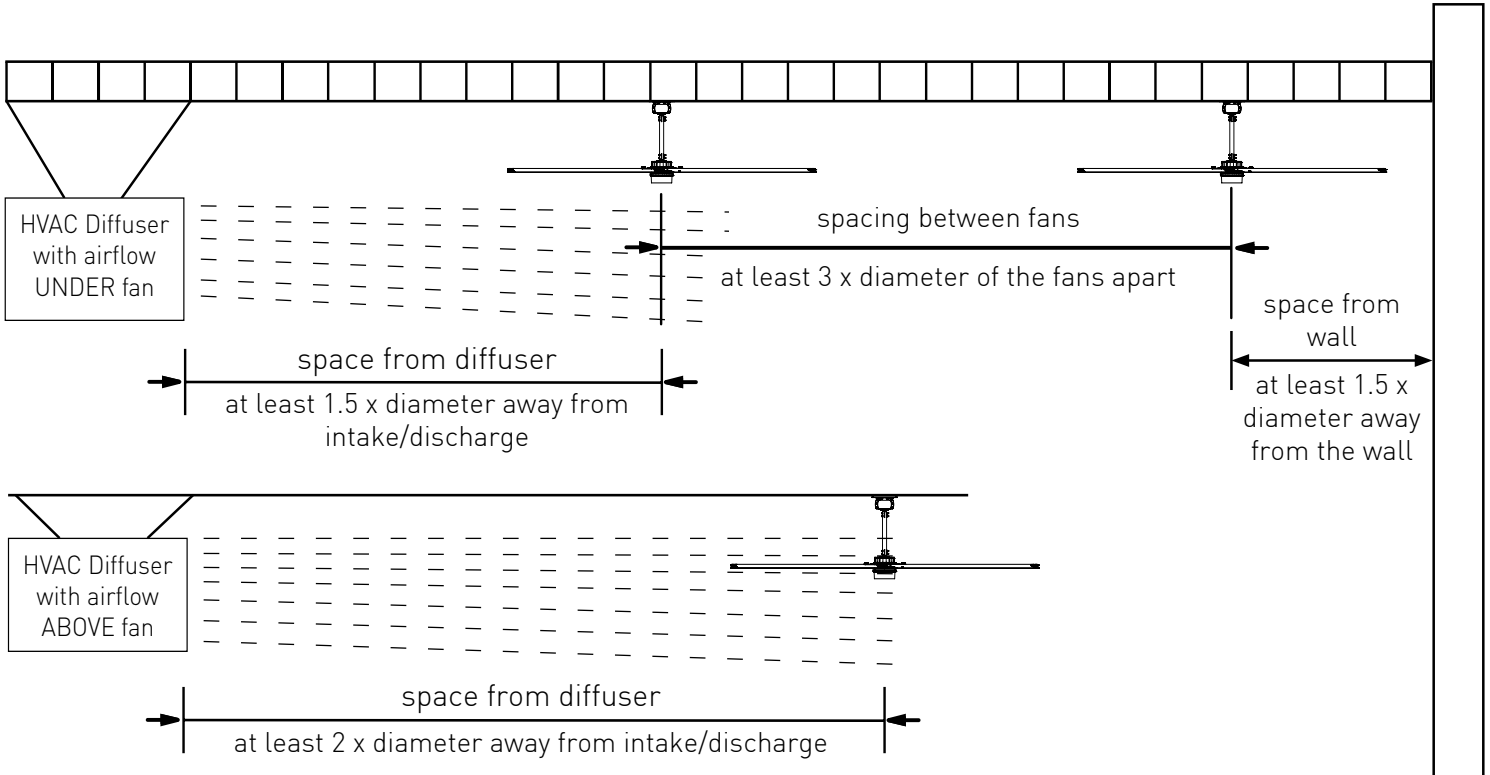
Dual Control for BMS Integration

STANDARD FEATURES

- Seemless integration of a building management system and local fan network
- Fans take last known command, be it from the BMS, the Dual Control enabled Network Controller 30 screen(s), or VNC enabled smart devices
- Provides a single point of local control of up to 30 fans
- Enables grouping and fan naming
- Password protection capabilities for operation, naming, and grouping
- Requires AirLynk (BacNet) and Dual Control Enabled Controller 30*

*AirEffect is not compatible with Dual Control. Temperature monitoring by BMS can regulate fan operation.

HVAC Diffuser with airflow UNDER fan

spacing between fans

at least 3 x diameter of the fans apart

space from wall

space from diffuser

at least 1.5 x diameter away from intake/discharge

at least 1.5 x diameter away from the wall

HVAC Diffuser with airflow ABOVE fan

space from diffuser