

Architect:

Project:

Rodgers Project #:

Form of Submittal

Submittal No.

- Product Data
- Shop Drawings
- Mix Designs
- MSDS Sheets
- Physical Samples
- Manufacturer's Certification
- Test Reports
- Installation Instructions
- Letter of Affidavit / Compliance
- Welding Certificates
- Sample Warranty
- Other (Specify) - _____

NO EXCEPTIONS TAKEN
 EXCEPTIONS INDICATED
 REVISE AND RESUBMIT
 REJECTED; RESUBMIT

REVIEWED ONLY FOR CONFORMANCE WITH DESIGN CONCEPT OF THE PROJECT AND COMPLIANCE WITH INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS TO BE VERIFIED AND CORRELATED AT THE SITE; FOR QUANTITY VERIFICATION; FOR INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESSES OR THE MEANS, METHODS, TECHNIQUES OR SEQUENCES AND PROCEDURES OF CONSTRUCTION; AND FOR COORDINATION OF THE WORK OF ALL TRADES.

YATES-CHREITZBERG-HUGHES ARCHITECTS
 7035 NORTHWINDS DR. NW
 CONCORD, NORTH CAROLINA 28027

BY: JRS DATE: 06/03/2025

Item: _____

Drawing Number: _____

Spec. Section & Package No.: _____

Manufacturer: _____

Brand: _____

Submitted By: _____

Review Due Date: _____

FAN F-1 KEF PAGE 3
FAN F-2 MUA PAGE 7
FAN F-3 DISH PAGE 12

Rodgers Stamp

Rodgers Builders, Inc.

_____ No Exception Taken _____ Make Corrections Noted
 _____ Rejected _____ Revise and Resubmit
 _____ Submit Specified Item _____ Reviewed


Corrections and comments are only for general conformance with the design concepts of the project and general compliance with the information given in the contract documents. Action shown is subject to the requirements of the plans and specifications. This review does not relieve the subcontractor/vendor from compliance with requirements of the drawings and specifications. Subcontractor /vendor is responsible for dimensions which shall be confirmed and correlated at the job site, fabrication process, and techniques of construction: coordination of their work with that of all other trades and the satisfactory performance of their work.

By _____ Date _____
 No. _____

A/E Stamp

SHOP DRAWING REVIEW

NO EXCEPTION TAKEN
 APPROVED AS NOTED
 REVISE AND RESUBMIT
 REJECTED


optima
engineering

REVIEW IS FOR GENERAL COMPLIANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS. MECHANICAL CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR CORRECTNESS, DIMENSIONS, DETAILS, QUANTITIES AND ALL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT, INCLUDING STRUCTURAL AND ELECTRICAL CHANGES, MAINTENANCE ACCESS, CLEARANCES, BUILDING ALTERATIONS, PIPING, SHEET METAL, REPLACEMENT OF OTHER SYSTEM COMPONENTS, ETC.

BY Kelsey Sheehan DATE 5/29/2025

OPTIMA: SEE COMMENTS THROUGHOUT

Date	May 28, 2025
Hoffman & Hoffman Order #	470.476.10301
Branch Office	Charlotte, NC
Salesman	Blake Anderson



PROJECT: Coltrane-Webb/Beverly Hills
Concord, NC

**Revision #1 - manufacturer
change**

*Revised to CaptiveAire
to match Kitchen Hoods*

CONTRACTOR: Superior Mechanical
Randleman, NC

ENGINEER: Optima Engineering
Charlotte, NC

EQUIPMENT: Kitchen Fans by **CaptiveAire**
Spec 23 34 23 - 002.0

PER LATEST DRAWINGS: 10/21/2024

General Notes:

Above per the attached data and cut sheets

- Submitted only on TAGS F 1-3 for fans, and curbs.
Kitchen supplier will be providing hoods and controls also by CaptiveAire
- Motor horsepower and electrical voltage must be confirmed.
- We don't include any controls, motor starters, dampers of any kind, shaft grounding seismic construction, high wind rated construction, painted finishes or coatings, pitched or metal building roof curbs, rigging, or wiring.

SUBMITTAL

APPROVAL REQUIRED

HOFFMAN & HOFFMAN, INC.

HVAC Manufacturers Representative

Website: www.hoffman-hoffman.com

Asheville, NC (828) 252-5782	Charleston, SC (843) 884-3201
Charlotte, NC (704) 364-4700	Columbia, SC (803) 765-9360
Raleigh, NC (919) 781-8011	Greenville, SC (864) 676-1888
Wilmington, NC (910) 791-4775	Chesapeake, VA (757) 548-1700
Chattanooga, TN (423) 693-2890	Richmond, VA (804) 272-1500
Knoxville, TN (865) 450-9770	Roanoke, VA (540) 725-8701
Corporate: Greensboro, NC (336) 292-8777	

We have exercised care in the preparation of this submittal. We believe it satisfies our interpretation of the designer's intent and scope. It contains the list of materials, quantities, sizes, style and the finish as we propose to furnish for this job. Please examine and check carefully that all items are exactly as required and that our interpretation of the applicable plans and/or specifications are consistent with the design. Approval by the engineer and purchaser will be required before release of this equipment for production. If any discrepancies are discovered, please notify us as soon as possible.

Model is basis of design

DU240HFA (#1)

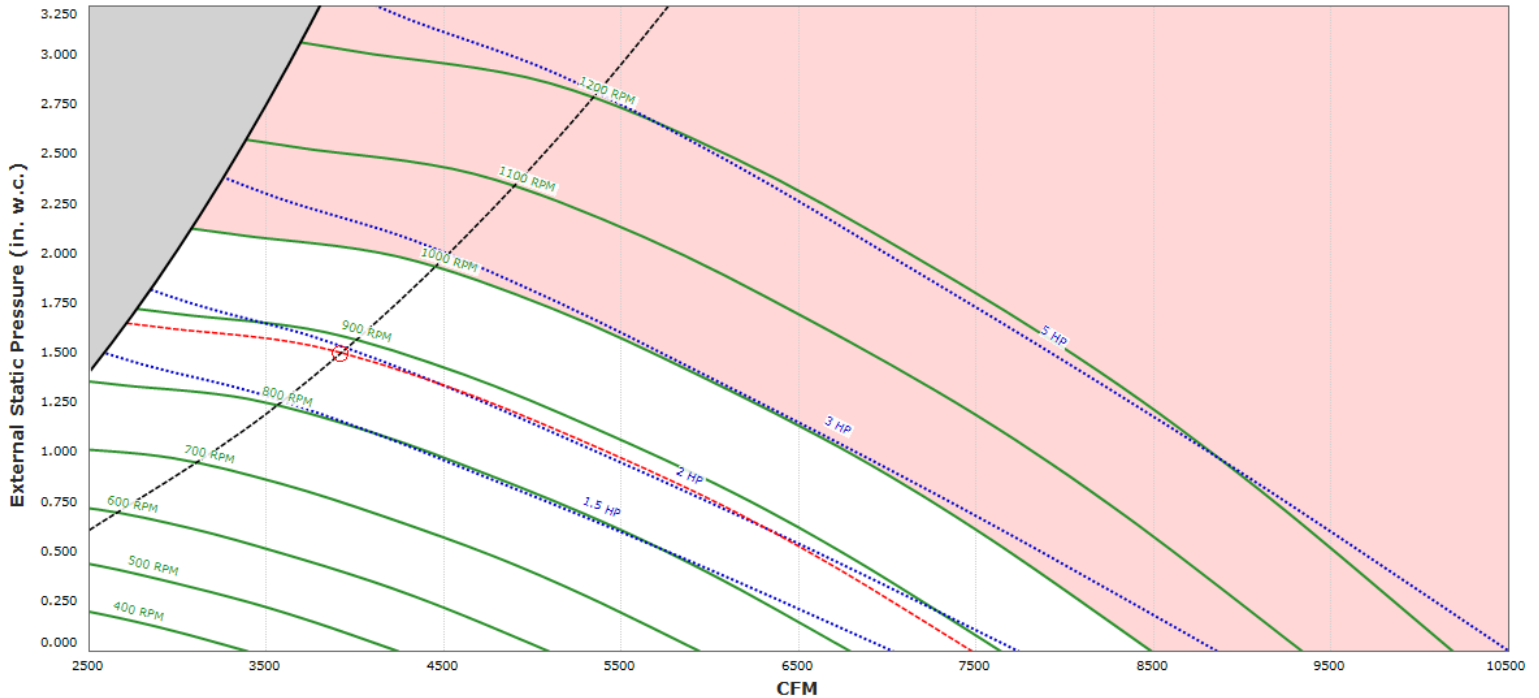
FAN F-1

Weight: 263 lbs./54 curb



High Speed Direct Drive Centrifugal Upblast Exhaust Fan with disconnect switch and 24" wheel.

BIRDSCREEN



EXHAUST MOTOR

Model DTP0054 • 5.000 HP • 3 Phs • 460 V • 60Hz • 6.8 FLA ODP, Premium (E-Plus3) Eff.

EXHAUST PERFORMANCE

Volume: 3915 CFM RPM: 881 TS: 5708 ft/min

Static Pressure: 1.500" w.g. BHP: 1.949 Discharge Velocity: 890 FPM

Altitude: 0' Ambient Temp: 120.0°F FEI: 1.134

CONSTRUCTION FEATURES

- Housing constructed of heavy gauge aluminum
- Centrifugal backward inclined, non-overloading wheel built out of 3003-H14 aluminum
- Weatherproof safety disconnect switch
- Grease spout welded to housing
- Vibration isolators
- Adjustable pitch drive assemblies
- Adjustable motor mount
- Ball bearing motors
- Forces fresh air through motor to ensure long motor life
- Corrosion resistant fasteners
- High heat operation (300 °F)
- Rated for restaurant and general ventilation applications
- Grease classification tested
- UL705 and UL762

EXHAUST INSTALLATION INFORMATION

Unit Voltage:	3 phs 460 V 60Hz
Unit Main Input:	8.5 Amps MCA • 15 Amps MOP • 460 V • 14 AWG Wire Min.
SCCR:	10 kAmp

CURB & SUPPORTS

- ROOF CURB - 31-1/2" sq. x 26" high
- Hinge Kit

VENTED

CONFIGURED OPTIONS

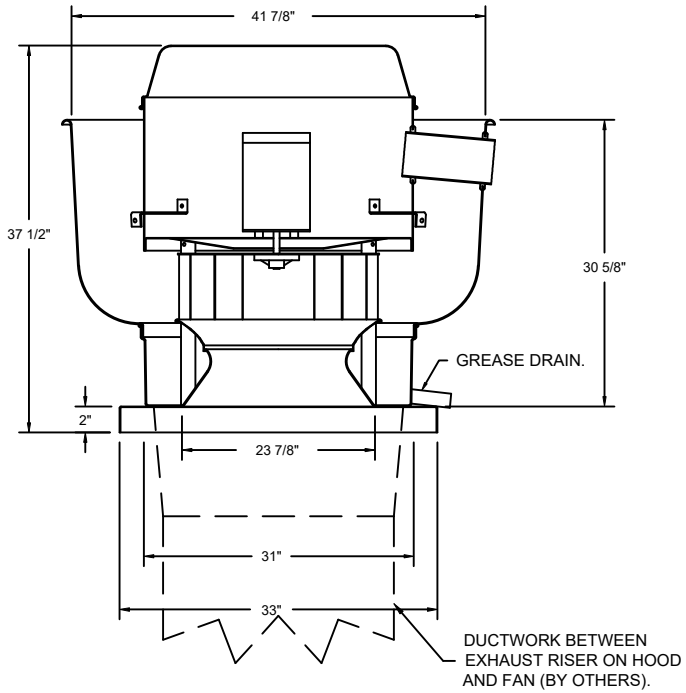
- Grease Cup for kitchen-duty centrifugal exhaust fans, Box Dimensions 17-1/8 L X 5-1/16 W X 3-3/4 H (20 Gauge) (Includes Down Spout)
- DU/DR240HFA Gasketing Kit - Thermeez Woven Ceramic Tape - 1/4" x 1" with adhesive back - Max Temp 1500°F. To be applied between fan base and grease duct. Installed under fan base 1/2" from the inside. Installed at the plant.
- Mount Load Reactor in Fan.

DU240HFA SOUND (881 RPM) AT 5 FT. IN OCTAVES:

	1	2	3	4	5	6	7	8
	76.6	87.7	83.1	73.7	70.4	67.3	62.7	58.3
LWA:	78.7	Sones:		15.2	DBA:		67.2	

Note: Sound data across operational range. Tested in accordance to AHRI Standard 270/370.

ALL FANS
INSTALLED INSIDE,
ABOVE, OR
ADJACENT TO
OCCUPIED SPACES
SHALL HAVE A
MAXIMUM 9.0 INLET
SONE LEVEL.

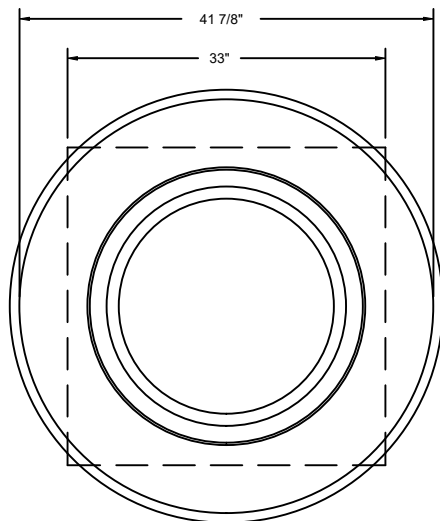
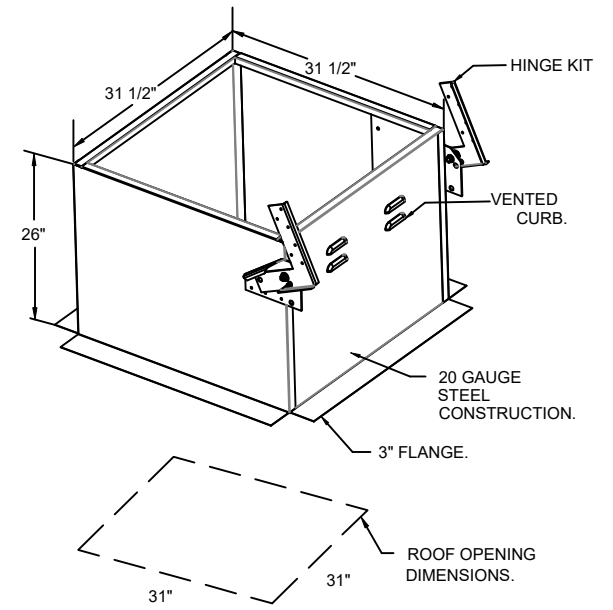


FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705 AND UL762 AND ULC-S645
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).
- GREASE CLASSIFICATION TESTING.
- NEMA 3R SAFETY DISCONNECT SWITCH.

NORMAL TEMPERATURE TEST
 EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
 EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.



TOP VIEW

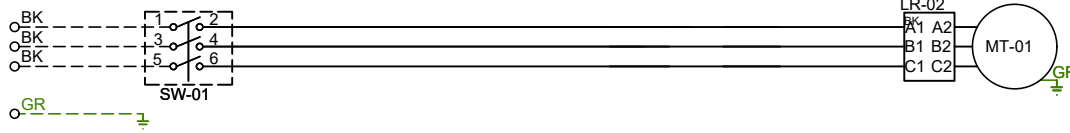
Exhaust Fan Wiring

PROJECT ** Coltrane-Webb/Beverly Hills ES (fans)

DRAWING NUMBER EXH7552015-1

MODEL DU240HFA

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Installed Options

Label	Component Identification		Location
	Description		
LR-XX	Line/Load Reactor		[3]
MT-01	Fan Motor		[3]
SW-01	Main disconnect switch		[3]

MOTOR INFO
 EXHAUST 5.0HP-460V-3P-6.8FLA
 VFD PART: ESV402N04TXB571
 REACTOR PART: KDRAA3L2

ELECTRICAL INFORMATION
 MOTOR/CTRL MCA: 8.5A
 MOTOR/CTRL MOP: 15A

NOTES
 - - - - - DENOTES FIELD WIRING
 _____ DENOTES INTERNAL WIRING

WIRE COLOR
 BK - BLACK YW - YELLOW
 BL - BLUE GR - GREEN
 BR - BROWN GY - GRAY
 OR - ORANGE PR - PURPLE
 RD - RED PK - PINK
 WH - WHITE

Model is basis of design

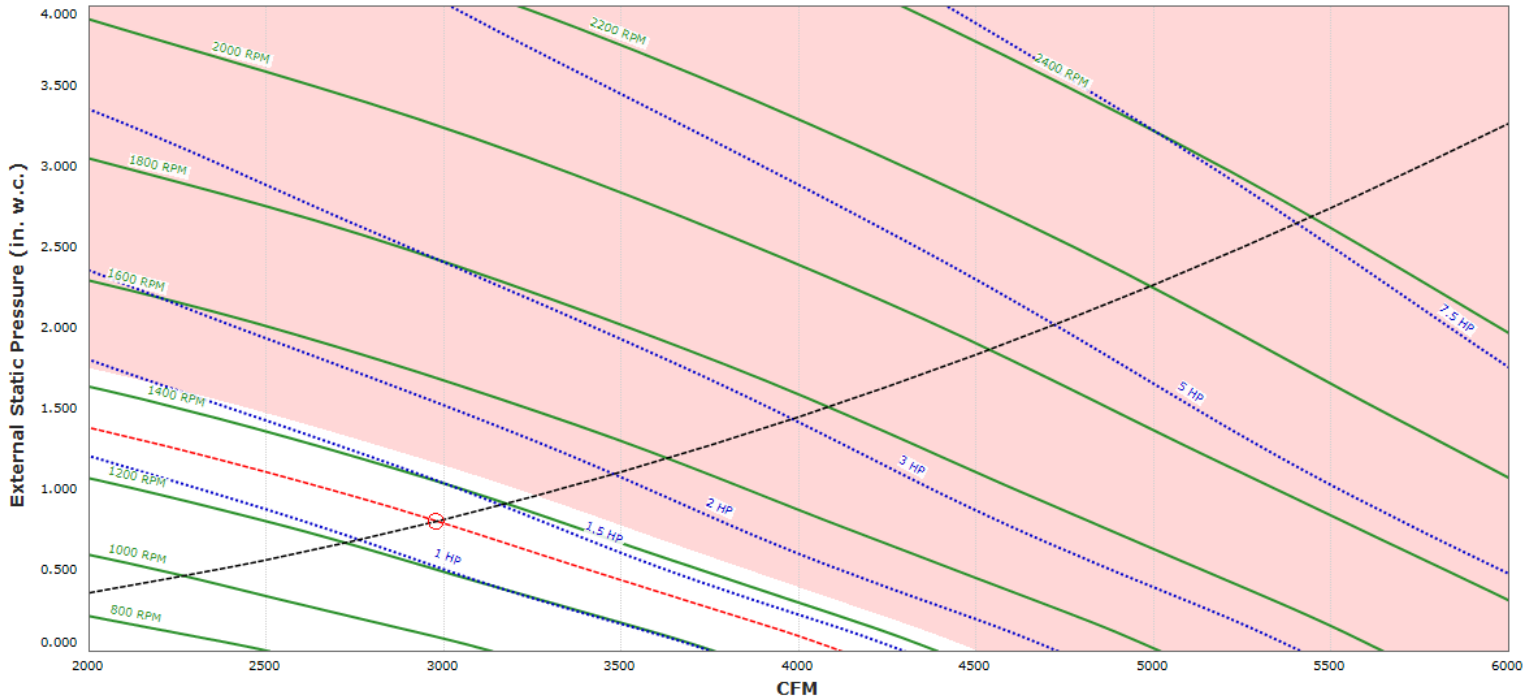
A2-D.250-20D (#2)

FAN F-2

Weight: 691 lbs./76 curb



Direct Gas Fired Heated Make Up Air Unit with 20" Mixed Flow Direct Drive Fan



SUPPLY MOTOR

Model DTP0026 • 2.000 HP, 3 Phs, 460 V, 60 Hz, 3.8 FLA, ODP, Premium (E-Plus3) Eff.

BURNER

Min Output BTU:	18,000 BTU/Hr
Max Output BTU:	275,000 BTU/Hr
Size:	6" long
Gas Type:	Natural

CONSTRUCTION FEATURES

- Housing constructed of heavy duty G90 galvanized steel
- Vibration isolation
- Ball bearing motors
- Heavy duty, pre-lubricated bearings rated for 200,000 hours of operation
- Service doors on both sides
- **Horizontal & down discharge**
- Large intake area ensures low pressure drop across unit
- Spring loaded profile plates automatically adjust for any airflow - no manual setting required!
- Weatherproof safety disconnect switch
- Modular design provides design flexibility
- Fully insulated casing

SUPPLY PERFORMANCE

Volume:	2977 CFM	RPM:	1314
Tip Speed:	6880 ft/min	BHP:	1.2630
Static Pressure:	0.806" w.g. (0.750" Ext. + 0.037" Int. + 0.019" Opt.)		
Altitude:	0 ft		

BLOWER

20 Inch Mixed Flow Plenum Fan for size 2 MOD. Hub specified to match motor shaft.

TEMPERATURE CONTROL

0-150°F Discharge Temp Control • Field Wired On/Off Start Command • Heating Activation Based On Intake Set Point. Use with MUA

INTAKE

- Sloped Filtered Intake for Size #2 Modular Heater. 26.813" Wide X 53.625" Long X 31.313" High. Includes 2" MV EZ Kleen Metal Mesh Filters.

HEATING SCHEDULE

Altitude:	0 ft
Winter Outdoor Air Dry Bulb Temp:	20.0°F
Temp Rise:	60.0°F
Output BTU:	189,059 BTU/Hr
Input BTU:	205,499 BTU/Hr
Based Off:	BTUs Actual Air Density
Gas Type:	Natural

SUPPLY INSTALLATION INFORMATION

Gas Pressure:	7 in. w.c. - 14 in. w.c.
Insurance Requirements:	No Insurance Requirement (ANSI)
Unit Voltage:	3 phs 460 V 60Hz
Motor Circuit:	4.8 Amps MCA • 15 Amps MOP • 460 V • 14 AWG Wire Min.
Control Circuit:	2.0 Amps MCA • 15 Amps MOP • 120 V • 14 AWG Wire Min.
SCCR:	10 kAmp

AIRFLOW DIRECTION

- Down Discharge - Air Flow Right -> Left

FILTERS

- 3x MV EZ Kleen Metal Mesh Filter. 20"x 25"x 2" Used for heater and supply fan intakes. (3416)

CURB & SUPPORTS

- ROOF CURB - 31" Wide X 79" Long X 14" High, Insulated. For the # 2 Modular Heater.

CONFIGURED OPTIONS

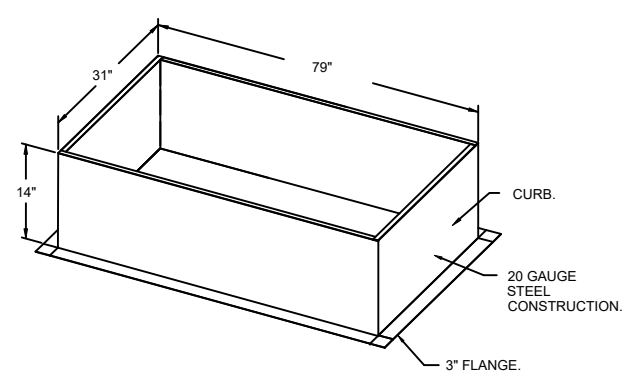
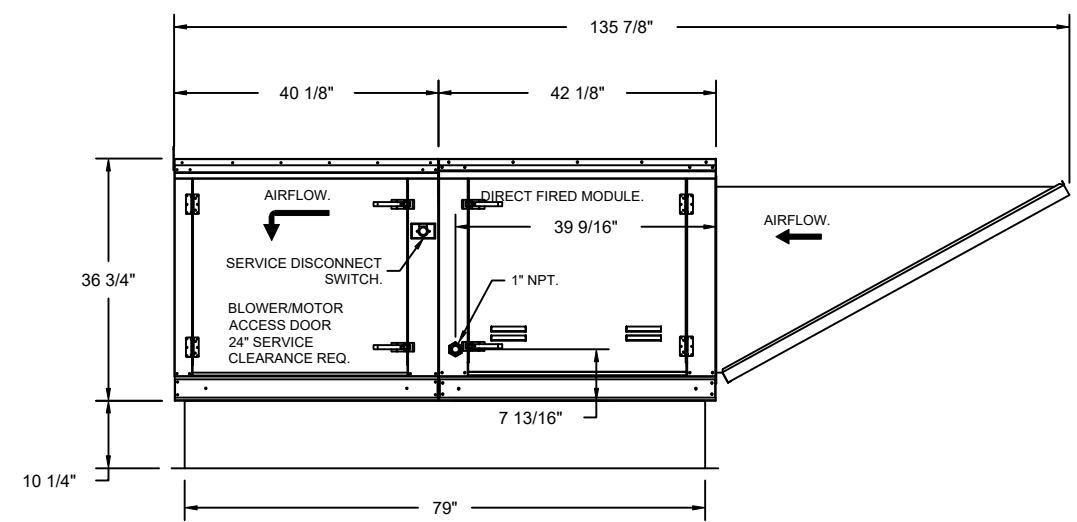
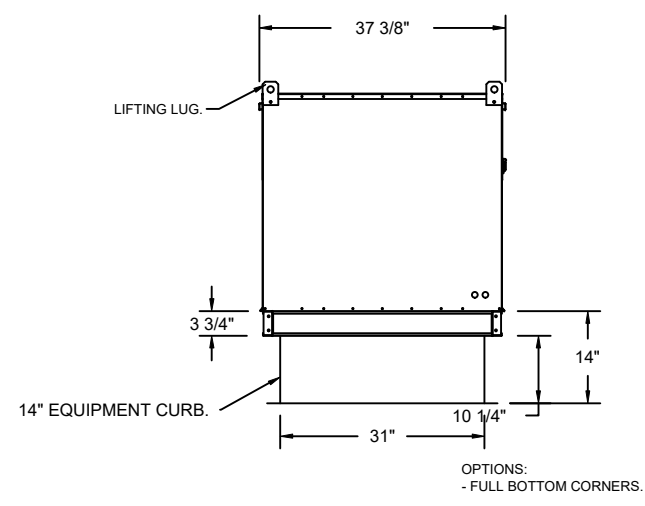
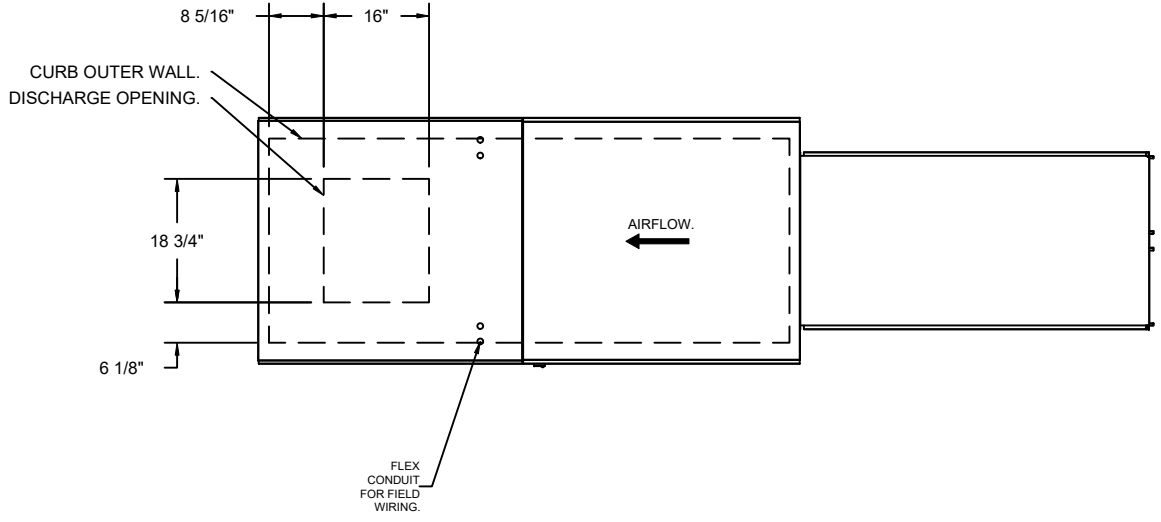
- Down Discharge Construction for Size 2 Direct Drive AHUs
- Gas Pressure Gauge, 0-35", 2.5" Diameter, 1/4" Thread Size
- Gas Pressure Gauge, -5 to +15 Inches Wc., 2.5" Diameter, 1/4" Thread Size
- Butterfly Mod Valve Option for Mod Size 2 (1" Mod Valve).
- Ship Loose Gas Strainer. To be installed upstream of unit connection. 1" Connection
- Motorized Back Draft Damper 22.75" X 24" for Size 2 Standard & Modular Heater Units w/Extended Shaft, Standard Galvanized Construction, 3/4" Rear Flange, Low Leakage, LF120S Actuator Included
- Mount Load Reactor in Fan.
- Separate 120VAC Wiring Package for Make-Up Air Units. Option must be selected when mounting VFD in prewire panel or with DCV package. Provides separate 120VAC input to supply fan. This 120V signal must be run by electrician from DCV to mua switch.
- Profile Plate Configuration for size 2 Direct Fired Unit for low cfm applications.

A2-D.250-20D SOUND (1314 RPM) AT 5 FT. IN OCTAVES:

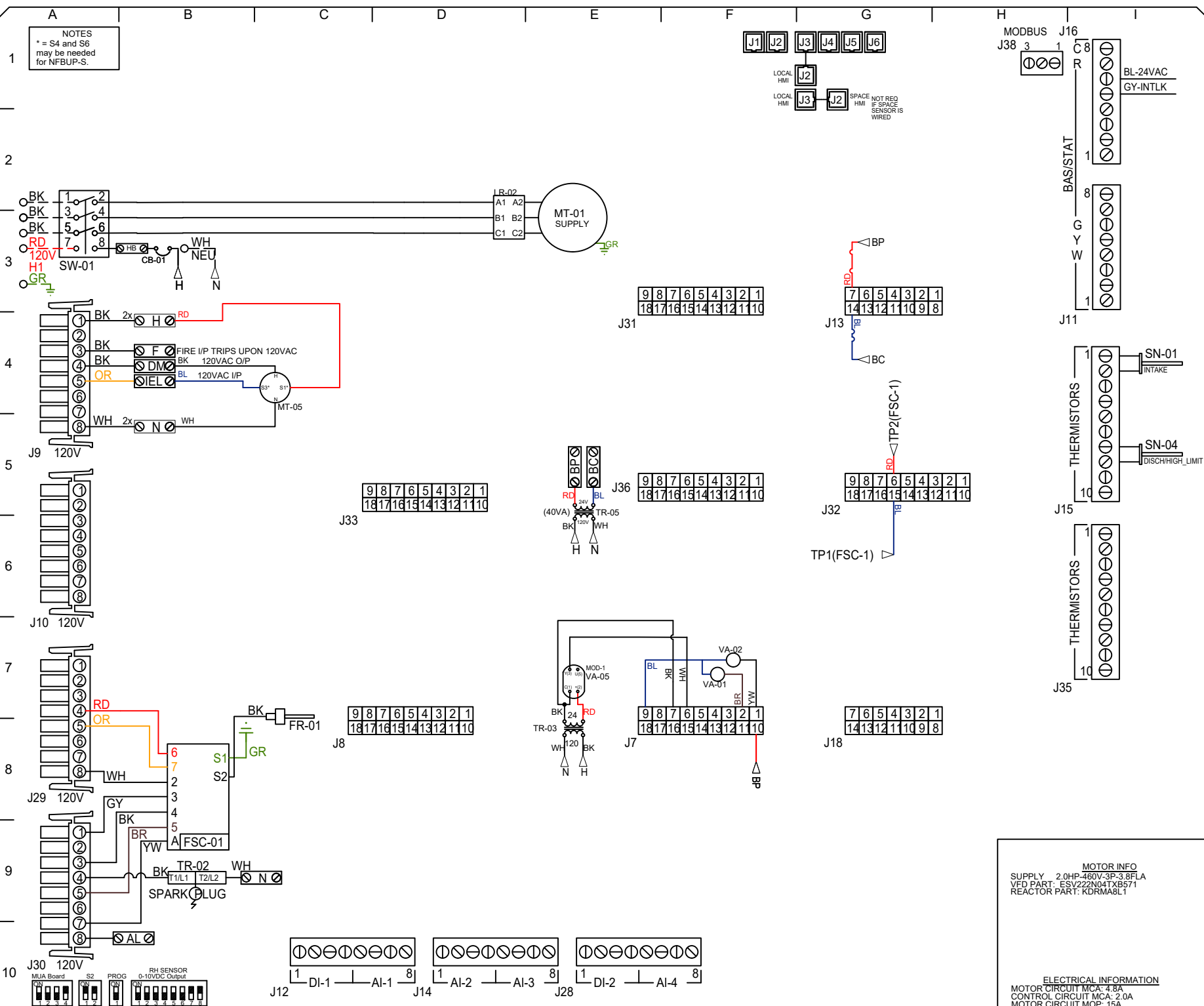
	1	2	3	4	5	6	7	8
	70.3	78	72.9	72	68.4	65.7	62.7	59.2
LWA:	74.2		Sones:	11.1		DBA:	62.7	

Note: Sound data across operational range. Tested in accordance to AHRI Standard 270/370.

**ALL FANS
INSTALLED INSIDE,
ABOVE, OR
ADJACENT TO
OCCUPIED SPACES
SHALL HAVE A
MAXIMUM 9.0 INLET
SONE LEVEL.**



NOTES
 * = S4 and S6
 may be needed
 for NFBUP-S.



COMPONENT LIST		
LABEL	DESCRIPTION	
CB-01	CIRCUIT_BREAKER	B3
FR-01	FLAME_ROD	B8
FSC-01	FIREYE_FLAME_SAFETY	B8
LR-XX	LINELOAD_REACTOR	D2
MT-01	SUPPLY_MOTOR	E3
MT-05	INTAKE_DAMPER_MTR	C4
SN-XX	TEMP_SENSOR	I4/I5/I6/I7
SW-01	DISCONNECT_SWITCH	A3/B8
TR-02	IGNITION_TRANSFMR	B9
TR-05	BOARD_POWER_TRFMR	E5
VA-01	PILOT_GAS_VALVE	E7
VA-02	MAIN_GAS_VALVE	E7
VA-05	MOD_GAS_VALVE	E7

LEGEND

- FIELD WIRING
- FACTORY WIRING
- BK-BLACK YW-YELLOW
- BL-BLUE GY-GREY
- BR-BROWN PR-PURPLE
- OR-ORANGE RD-RED
- WH-WHITE GR-GREEN
- ORBL-ORBL STRIPE
- BLRD-BLRD STRIPE
- RDGN-RDGN STRIPE
- WHBL-WHBL STRIPE

MOTOR INFO
 SUPPLY 2.0HP-460V-3P-3.8FLA
 VFD PART: ESV222N04TXB571
 REACTOR PART: KDRMA8L1

ELECTRICAL INFORMATION
 MOTOR CIRCUIT MCA: 4.8A
 CONTROL CIRCUIT MCA: 2.0A
 MOTOR CIRCUIT MOP: 15A
 CONTROL CIRCUIT MOP: 15A

JOB NAME
 ** Coltrane-Web...

DRAWING TITLE
 DESCRIPTION OF OPERATION
 MUA BOARD (DETAILS TO FOLLOW)

JOB NO 7552015	DRAWN BY AUTO
TYPE FACTORY	DATE 5/28/2025

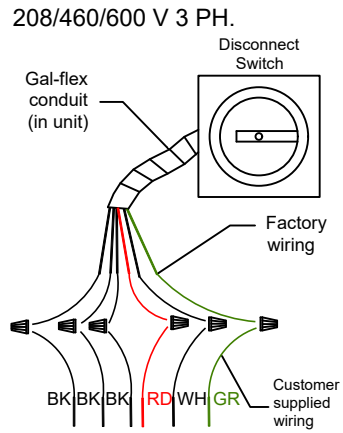
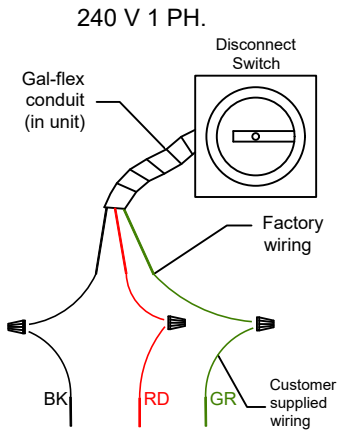
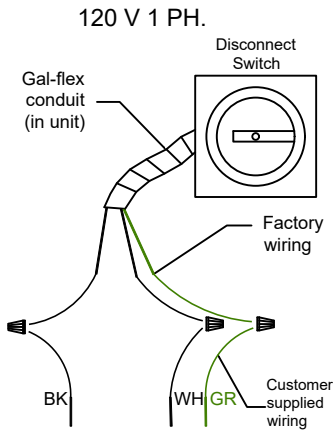
DWG NHW7552015-2

Installation Wiring

PROJECT ** Coltrane-Webb/Beverly Hills ES (fans)

DRAWING NUMBER RP7552015-2

MODEL A2-D.250-20D

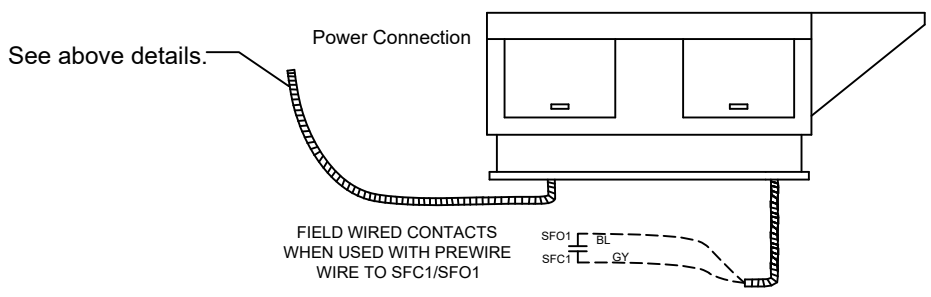


Installed Options

Field Wired Switch

HMI SCHEDULE				
UNIT NUMBER	HMI #	HMI LOCATION	TEMP AVERAGING	MODBUS ADDRESS
FAN #2	HMI #1 - UNIT	IN UNIT	NOT AVERAGED	55

STANDING POWER
RD & WH Wire (115V, 1 PHASE)
OPTIONAL FOLLOW FAN
SCHEMATICS



NOTES

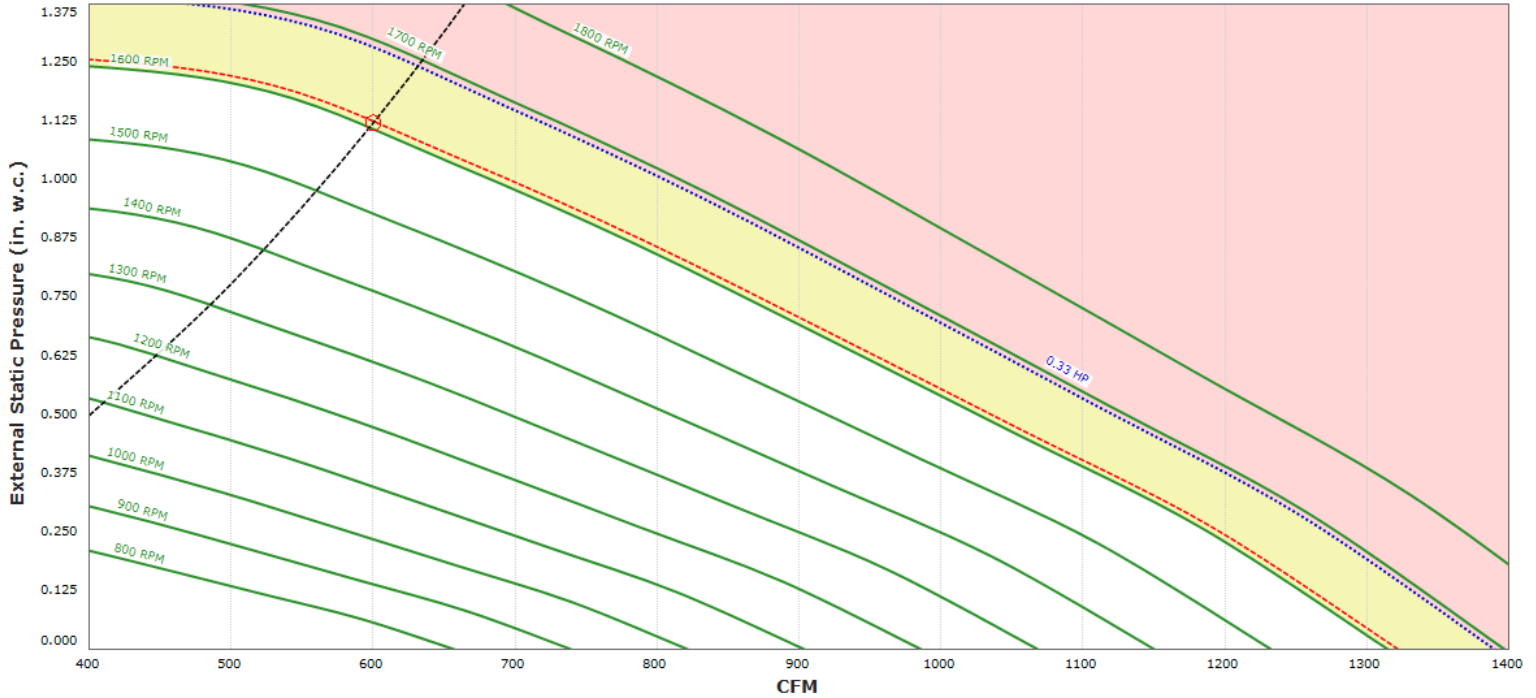
WIRE COLOR

BK - BLACK	YW - YELLOW
BL - BLUE	GR - GREEN
BR - BROWN	GY - GRAY
OR - ORANGE	PR - PURPLE
RD - RED	PK - PINK
WH - WHITE	

DR33HFA (#3) FAN F-3 Weight: 58 lbs./24 curb



High Speed Direct Drive Centrifugal Downblast Exhaust Fan with speed control (speed control included for single phase only), birdscreen, disconnect switch and 11-3/4" wheel



EXHAUST MOTOR

Model BMN48-25011-ES-M52-CA-60-115 • 0.333 HP • 1 Phs • 115 V • 60Hz • 4.3 FLA
• TEAO-ECM (Totally Enclosed Air Over Electronically Commutated Motor)

EXHAUST PERFORMANCE

Volume:	600 CFM	RPM:	1609	TS:	4950 ft/min
Static Pressure:	1.122" w.g. (1.000" Ext. + 0.122" Opt.)	BHP:	0.286	Discharge Velocity:	297 FPM
Altitude:	0'	Ambient Temp:	70.0°F	FEI:	1.308

CONSTRUCTION FEATURES

- Housing constructed of heavy gauge aluminum
- Centrifugal backward inclined, non-overloading wheel
- Weatherproof safety disconnect switch
- Speed control
- Heavy duty ball bearing motors permanently lubricated, rated for continuous operation, and thermally protected
- Integral electrical conduit runs from fan base to motor compartment
- Shaft precision ground & polished
- Fresh air channelled through motor to ensure long motor life
- Durable base with welded corners

CURB & SUPPORTS

- ROOF CURB - 19.5" Square X 16" High
- Hinge Kit

EXHAUST INSTALLATION INFORMATION

Unit Voltage:	1 phs 115 V 60Hz
Unit Main Input:	5.4 Amps MCA • 15 Amps MOP • 115 V
SCCR:	10 kAmp

CONFIGURED OPTIONS

- ECM Wiring Package and Manual or 0-10VDC Control for Exhaust EC motors. RTC Controller (No harness when ordered as a part).
- Gravity Back Draft Damper - with flange, damper is 15" sq., 2" deep, O.D. of flange is 17" sq.

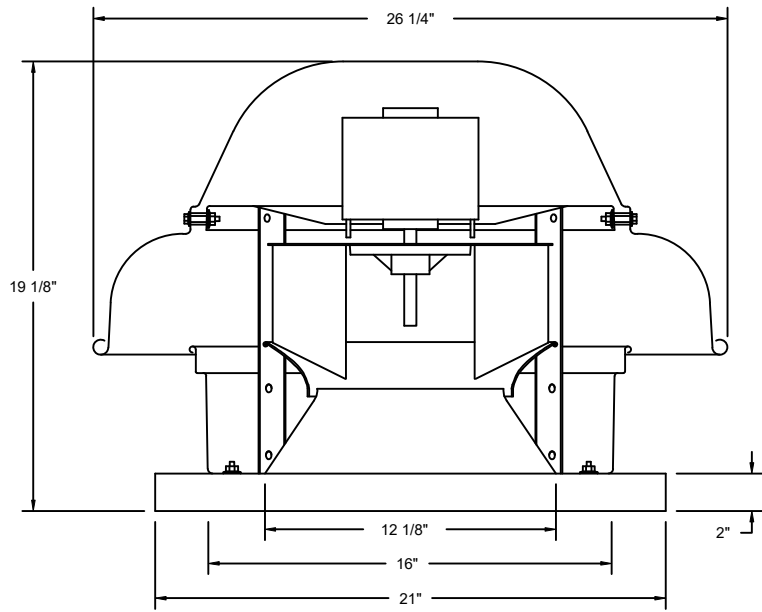
DR33HFA SOUND (1609 RPM) AT 5 FT. IN OCTAVES:

1	2	3	4	5	6	7	8
72.1	79	81.4	74	69.2	68	63.8	52.8
LWA:	77.2	Sones:	13.7	DBA:	65.7		

Note: Sound data across operational range. Tested in accordance to AHRI Standard 270/370.

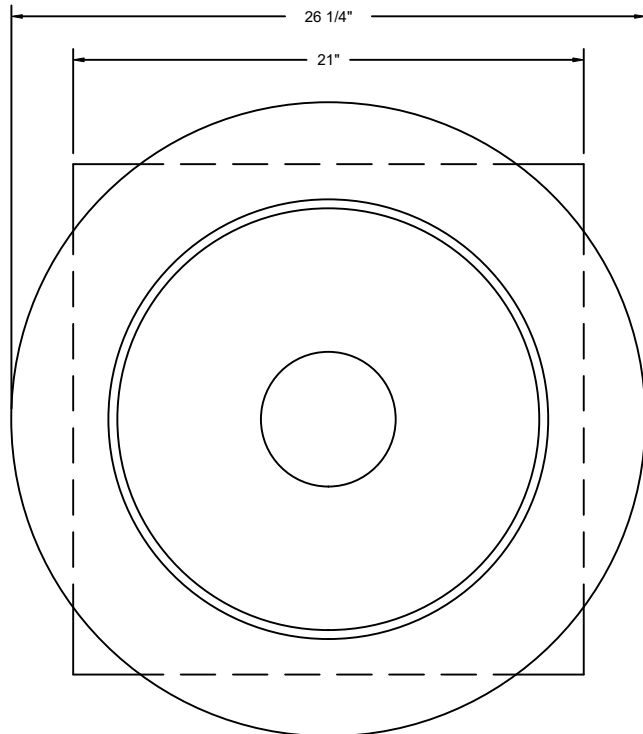
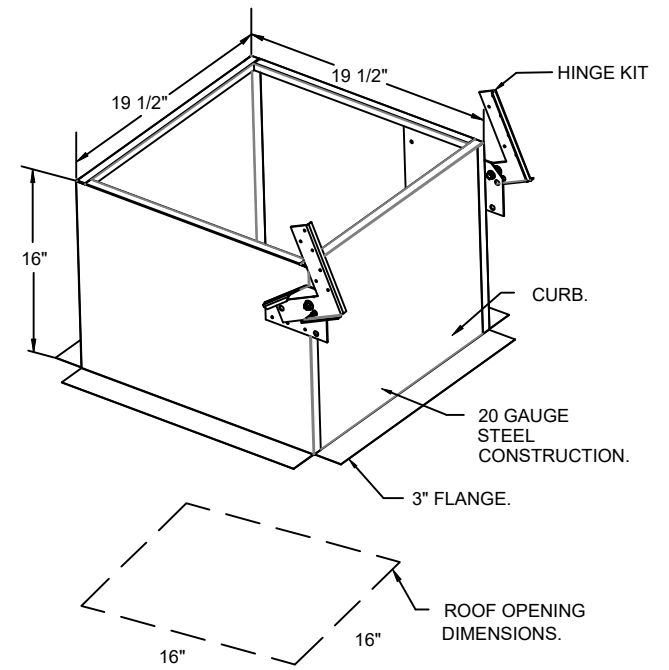


**ALL FANS
INSTALLED INSIDE,
ABOVE, OR
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SONE LEVEL.**



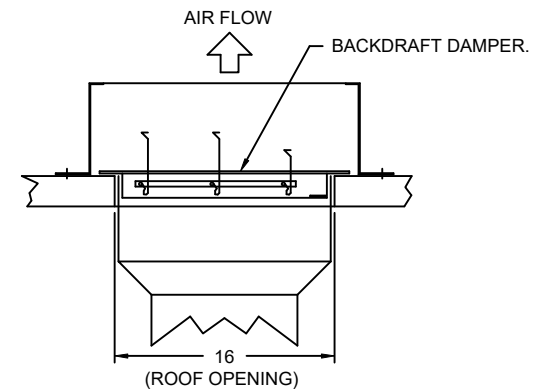
FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- UL705.
- SAFETY DISCONNECT.
- STANDARD BIRD SCREEN.
- SPEED CONTROL.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).



TOP VIEW

BACKDRAFT DAMPER INSTALLATION

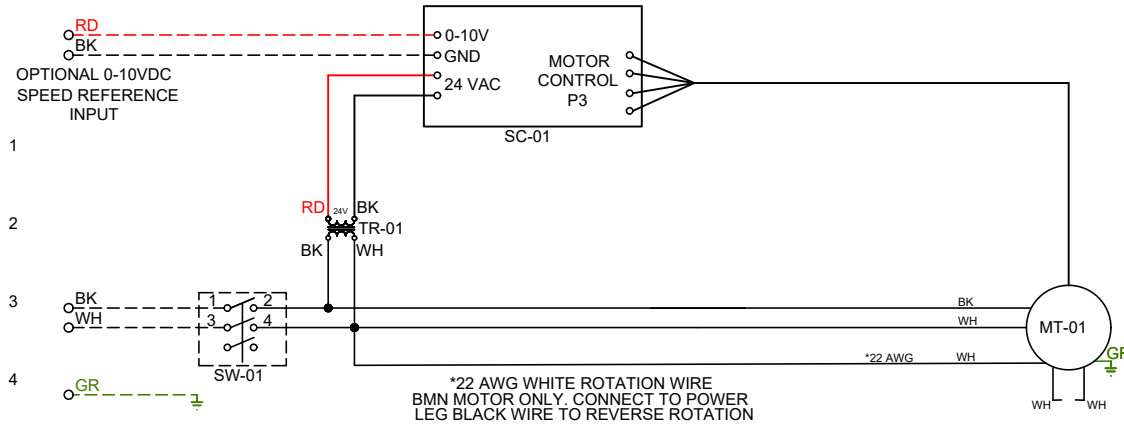


Exhaust Fan Wiring

PROJECT ** Coltrane-Webb/Beverly Hills ES (fans)

DRAWING NUMBER EXH7552015-3

MODEL DR33HFA



Installed Options

Label	Component Identification		Location
	Description		
MT-01	Fan Motor		[3]
SC-01	RTC-FSC-1		[1]
SW-01	Main disconnect switch		[3]
TR-01	24VAC 20VA Transformer		[2]

MOTOR INFO
EXHAUST 0.3HP-115V-1P-4.3FLA

ELECTRICAL INFORMATION
MOTOR/CTRL MCA: 5.4A
MOTOR/CTRL MOP: 15A

NOTES
- - - - DENOTES FIELD WIRING
_____ DENOTES INTERNAL WIRING

WIRE COLOR
BK - BLACK YW - YELLOW
BL - BLUE GR - GREEN
BR - BROWN GY - GRAY
OR - ORANGE PR - PURPLE
RD - RED PK - PINK
WH - WHITE

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