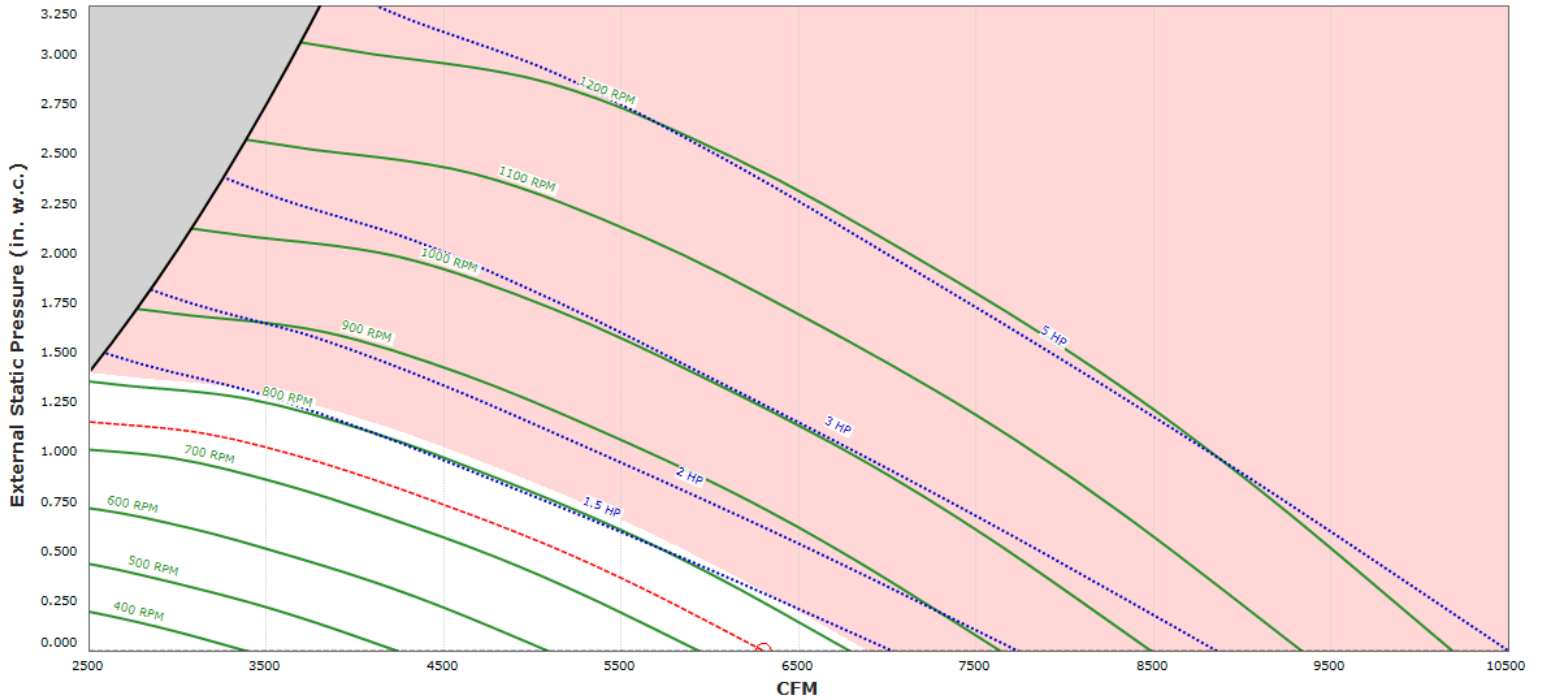


DU240H (#1) DU240-208-230/2hp Weight: 260 lbs.



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



EXHAUST MOTOR

Model DTP0026 • 2.000 HP • 3 Phs • 230 V • 60Hz • 7.5 FLA • ODP, Premium (E-Plus3) Eff.

EXHAUST PERFORMANCE

Volume:	6300 CFM	RPM:	743	TS:	4814 ft/min
Static Pressure:	0.000" w.g.	BHP:	1.081	Discharge Velocity:	1432 FPM
Altitude:	0'	Ambient Temp:	120.0°F	FEI:	0.607

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 230 V 60Hz
Unit Main Input:	9.4 Amps MCA • 15 Amps MOP • 230 V • 14 AWG Wire Min.
SCCR:	10 kAmp

CONFIGURED OPTIONS

- VAV (Variable-Air-Volume) Wiring Package for Commercial Fans. Manual Speed Control Variable Frequency Drive Included
- Exhaust Variable Frequency Drive - 3 HP Max., 200/240 V, Single or Three Phase Input, 9.6 A Max., NEMA 1 Enclosure PART NEEDS PROGRAMMING
- VFD factory mounted and wired in unit control vestibule.
- VFD Mounting bracket for DU/DR 240.
- Insulated Heat Baffle for Exhaust Fans. Type 475FRK 1 inch thick insulation installed on the top side of the top plate and under the motor of upblast and downblast fans. Cut to fit shaft wrapper and around vibration isolators and motor cooling hole. Caulked down to top plate.

DU240H SOUND (743 RPM) AT 5 FT. IN OCTAVES:

1	2	3	4	5	6	7	8
78.1	88.7	80.9	73.2	69.9	66.8	60.3	54.5
LWA:	77.9	Sones:	14.3	DBA:	66.4		

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

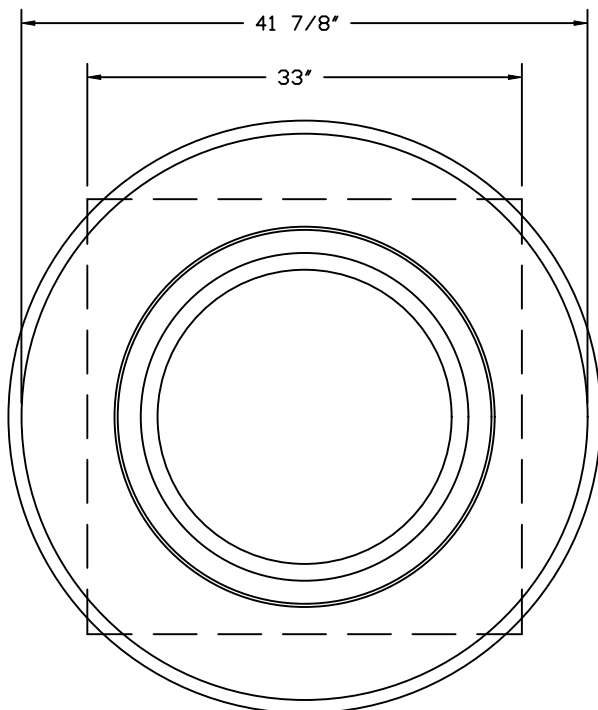
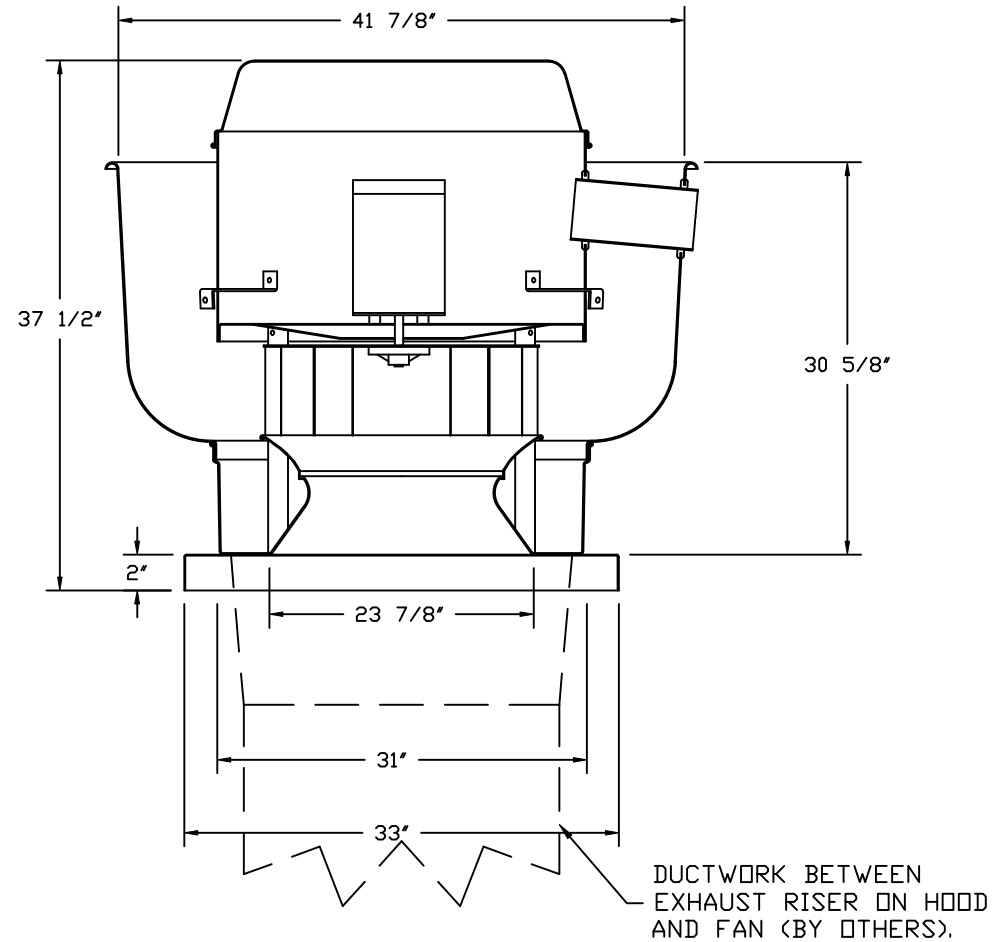
FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- ROOF MOUNTED FANS.
- RESTAURANT MODEL.
- UL705
- VARIABLE SPEED CONTROL.
- INTERNAL WIRING.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- HIGH HEAT OPERATION 300°F (149°C).

- NEMA 3R SAFETY DISCONNECT SWITCH.

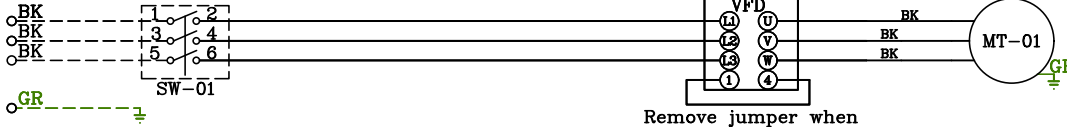
NORMAL TEMPERATURE TEST

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.



TOP VIEW

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Remove jumper when utilizing field wired switch
Note: 1/4/13A will be jumped on VFDs that are 15 HP or greater

Installed Options

Component Identification

Label	Description	Location
MT-01	Fan Motor	[3]
SW-01	Main disconnect switch	[3]

MOTOR INFO

EXHAUST 2.0HP-230V-3P-7.5FLA
VFD PART: ESV222N02YXB

ELECTRICAL INFORMATION

MOTOR/CTRL MCA: 9.4A
MOTOR/CTRL MOP: 15A

NOTES

----- DENOTES FIELD WIRING
————— DENOTES INTERNAL WIRING

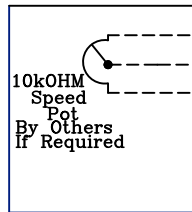
WIRE COLOR

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

Installed Options
Manual Control

SMV SERIES VARIABLE FREQUENCY DRIVE

TERMINAL	FUNCTION
1	Digital Input:(Start/Stop)
2	Analog Common
5	Analog Input: 0-10 VDC
6	Internal DC Supply for Speed Pot: +10 VDC
25	Analog Input: 4-20 mA
30	Analog Output
4	Digital Reference/Common
11	Internal 12VDC Supply for External Devices
13A	Digital Input: Configurable with P121
13B	Digital Input: Configurable with P122
13C	Digital Input: Configurable with P123
14	Digital Output: Configurable with P142
30	Analog Output: Configurable with P150...P155
16	Relay Output: Configurable with P140
17	
PE	Ground Terminal
L1	3 Phase Input or Single Phase Input
L2	3 Phase Input or Single Phase Input
L3 (N)	3 Phase input (Neutral for 120v)
U	3 Phase AC Motor
V	3 Phase AC Motor
W	3 Phase AC Motor



POWER SUPPLY

MOTOR

Component Identification

VARIABLE FREQUENCY DRIVE PARAMETER SETTINGS*

All external control wires to motor speed control should be 16-20 AWG shielded multiconductor cables and must not be run in the same conduit or raceway with any high power wiring. Ground Shielded Cable at the drive chassis ONLY.

PG. 11 OF THE DRIVE MANUAL DESCRIBES THE PROPER INSTALLATION PROCEDURE

PG. 19 OF THE DRIVE MANUAL DESCRIBES THE PROGRAMMING PROCEDURE OF THE DRIVE

PG. 23 OF THE DRIVE MANUAL DESCRIBES THE PARAMETER SETTINGS OF THE DRIVE

*NOTE: THE DEFAULT PASSWORD FROM THE FACTORY REQUIRED TO PROGRAM THE DRIVE IS "225".

EPM PROGRAM: VAV_MAN(USE LG_HP EPM IF >= 15HP)
 P100 (Start Source) = 01 (Terminal Strip)
 P102 = **Minimum Frequency (Hz)
 P103 = **Maximum Frequency (Hz)
 (P103 is based on max wheel RPM)
 P110 (Start Method) = 03 (Auto Re-start)
 P140 (Form A [NO] Relay) = 01 (Run)
 P144 (Relay Inversion) = 00 (None)
 P166 (Carrier Frequency) = 00 (4 kHz)
 P171 (Current Limit) = P108 - 1

Adjust manually on all drives
 P107 - 00 (If 120 or 208 VAC)
 or 01 (If 230, 480 or 575 VAC)
 P108 - Motor FLA x 100 / Drive Output Rating
 P165 (Base Voltage) = Set to Motor Voltage
 (Preset@230V) P165 FOR STANDARD DRIVE ONLY
 P167 (Base Frequency) = Calculated Per Fan

FOR KB PCU ONLY: P300 = 0
 When Speed POT is Required the Following Parameters Must be Set:

P101 (Reference Source) = 01 (0-10 VDC)
 P180 (Speed @ 0 VDC Signal) = Min Frequency
 P161 (Speed @ 10 VDC Signal) = Max Frequency

IT MAY BE REQUIRED TO FULLY POWER DOWN THE DRIVE AND TURN BACK ON IN ORDER TO INIATIAE NEW PARAMETER SETTINGS.

**Min. and Max. Frequency Settings override all other Preset speeds/Parameters.

GENERAL NOTES

*Note: Not Suitable for Corner Grounded 3 Phase Input power

MOTOR INFO
 EXHAUST 2.0HP-230V-3P-7.5FLA
 VFD PART: ESV222N02YXB

ELECTRICAL INFORMATION
 MOTOR/CTRL MCA: 9.4A
 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