



VARIABLE REFRIGERANT FLOW SYSTEMS

VRF VOSA

Dedicated Outdoor Air Concealed Ducted Indoor Models - 60HZ

Bulletin No. 210698
February 2017
Supersedes April 2016

PRODUCT SPECIFICATIONS

Compact design for limited space requirements. Installs out of sight between the drop ceiling and ceiling slab with duct distribution to the indoor space.

Model has four-stage fan with integrated electric control box. Model has Fresh Air feature, which allows the introduction of outside air, if required. External static pressure of up to 1.13 in. w. g. allows extended ductwork if necessary.



APPROVALS

- Units are ETL certified for the U.S. and Canada.

WARRANTY

- Components** - Limited ten years for qualifying installations. See Warranty Certificate for details.

FEATURES

- Pre-Heat Function** - Delays the operation of the fan until the indoor coil has reached a pre-determined temperature which prevents the discharge of cold air while the system is operating in the "heating" mode.
- LED Readout/Infrared Receiver Panel** - Mounted on unit (may be remotely located). LEDs display unit operation status, and codes for maintenance and servicing. Infrared receiver for use with a wireless remote control (not furnished).



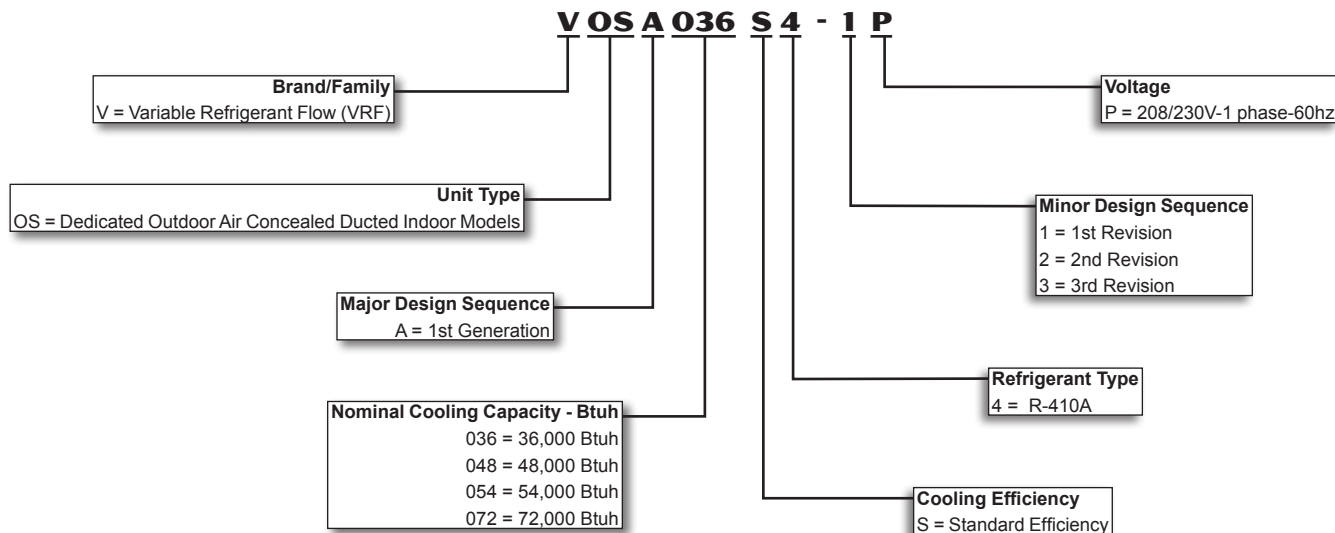
NOTE - FOR USE WITH HEAT PUMP SYSTEMS ONLY!

CONTENTS

Blower Data	9
Cooling Capacity	10
Dimensions	3
Heating Capacity	11
Installation Clearances	6
Model Number Identification	1
Sound Data	7
Specifications	2

- Auto Addressing (Heat Pump Systems Only)** - An optional wireless remote control (not furnished) can be used to inquire and modify each indoor unit's address.
- Auto Restart** - Automatically restores the previous function setting if power is interrupted.
- Electronic Expansion Valve** - Assures optimal performance throughout the application range.
- Flare Connections** - Equipped with liquid and gas flare fittings for quick and secure piping.
- Air Filter** - Cleanable air filter is furnished as standard.

MODEL NUMBER IDENTIFICATION



SPECIFICATIONS

General Data		Nominal kBtuh	36	48	54	72
		Model Number	VOSA036S4	VOSA048S4	VOSA054S4	VOSA072S4
¹ Cooling Performance	Net Cooling Capacity - Btuh		36,000	48,000	54,000	72,000
	Total Unit Power Input (W)		630	630	970	970
	Rated current (A)		2.9	2.9	4.5	4.5
¹ Heating Performance	Net Heating Capacity - Btuh		30,000	40,000	45,000	57,000
	Total Unit Power Input (W)		630	630	970	970
	Rated current (A)		2.9	2.9	4.5	4.5
Refrigerant	Type		R-410A	R-410A	R-410A	R-410A
Indoor fan motor	Input - W		430	430	(2) 1000	(2) 1000
	Speed (high / medium / low) - rpm		929 / 868 / 808	929 / 868 / 808	966 / 873 / 781	966 / 873 / 781
Indoor coil	Number of rows		4	4	4	4
	Fin spacing - in.		1/16	1/16	5/64	5/64
	Coil length x height x width - in.		39-1/4 x 14 x 3-1/2		44-1/4 x 20-1/8 x 3-1/2	
	Number of circuits		7	7	20	20
	Tube outside diameter and type - in.		3/8 - Rifled Copper Tubing			
	Fin type		Hydrophillic Coated Aluminum			
	Expansion device type		Electronic Expansion Valve			
	Design Pressure (high / low)- psig		650 / 250			
Indoor Coil Connections	Liquid pipe o.d. - in. (flare)		3/8	3/8	(2) 3/8	(2) 3/8
	Gas pipe o.d. - in. (flare)		5/8	5/8	(2) 5/8	(2) 5/8
	Drain connection o.d. - in.		(1) 1-1/4	(1) 1-1/4	(1) 1-1/4	(1) 1-1/4
Indoor Blower	⁴ Airflow (high / medium / low) - cfm		1068 / 890 / 712	1068 / 890 / 712	1608 / 1400 / 1120	1608 / 1400 / 1120
	External static pressure - in. w.g.		0.20 - 0.79	0.20 - 0.79	0.20 - 1.13	0.20 - 1.13
	Sound data (high / medium / low) dBA		54 / 52 / 50	54 / 52 / 50	54 / 53 / 51	55 / 54 / 52
Filter Size - in. (furnished)		41-7/8 x 13-3/8 x 3/8		43-7/8 x 13-1/2 x 3/8		
Control Wiring (AWG)		18/3 gauge (3-core shielded)				
Weight Data	Unit weight (net / shipping) - lbs.		153 / 168	153 / 168	245 / 274	245 / 274

ELECTRICAL DATA

Line voltage data - 60 hz - 1ph	208/230V	208/230V	208/230V	208/230V
² Maximum overcurrent protection (amps)	15	15	15	15
³ Minimum circuit ampacity	3.5	3.5	5.5	5.5
Indoor Blower Motor - Full load amps	2.8	2.8	(2) 2.18	(2) 2.18

¹ Nominal capacities are based on the following conditions (with 25 ft. of connecting refrigerant lines);

- Cooling Ratings - 95°F outdoor air temperature and 80°F db/67°F wb entering indoor coil air.
- Heating Ratings - 47°F db/43°F wb outdoor air temperature and 70°F db entering indoor coil air.

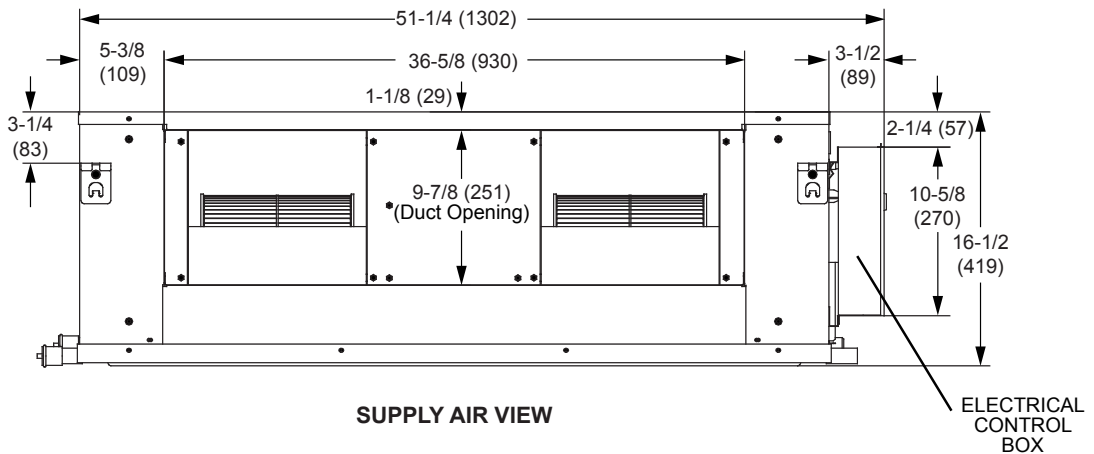
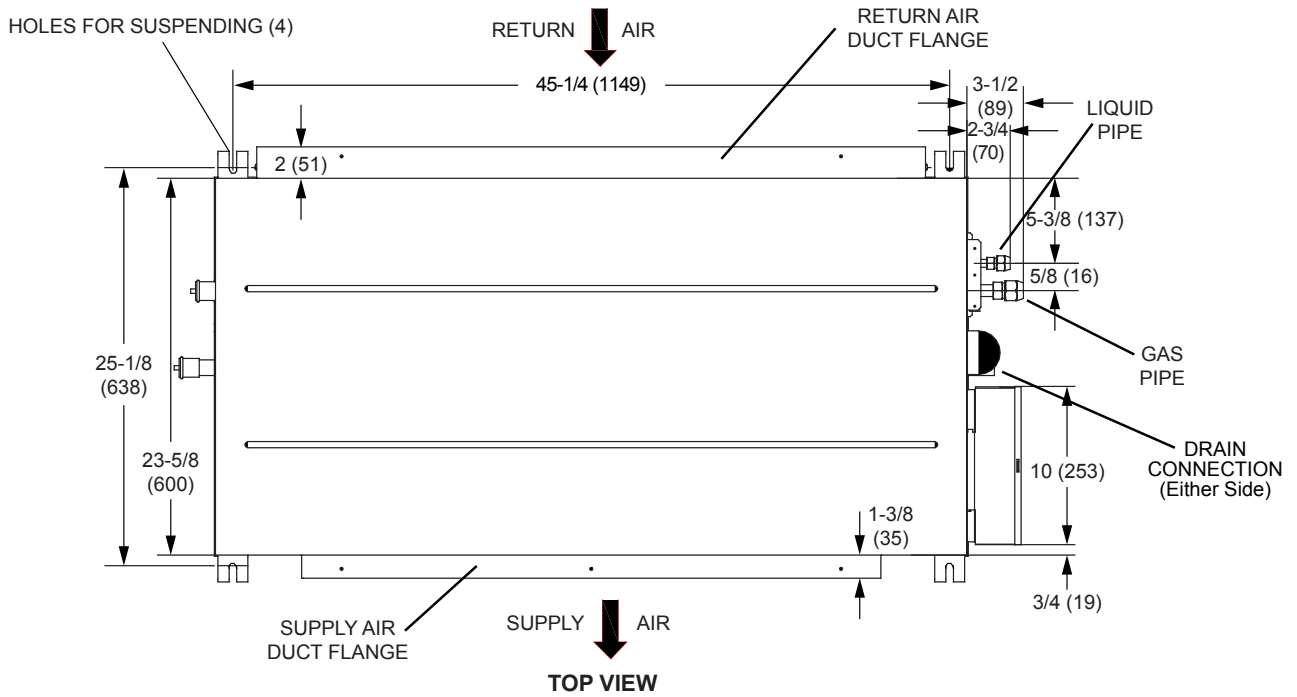
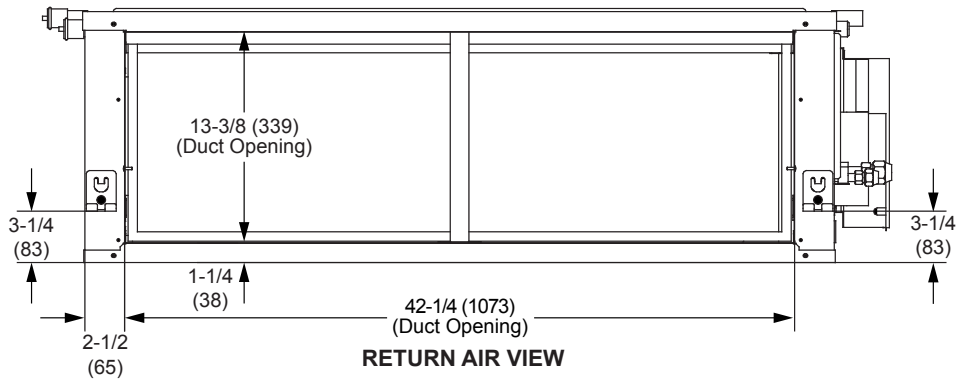
² HACR type circuit breaker or fuse.

³ Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

⁴ Air volume numbers shown are typical. Please refer to the blower data curves for cfm values at varying static pressures.

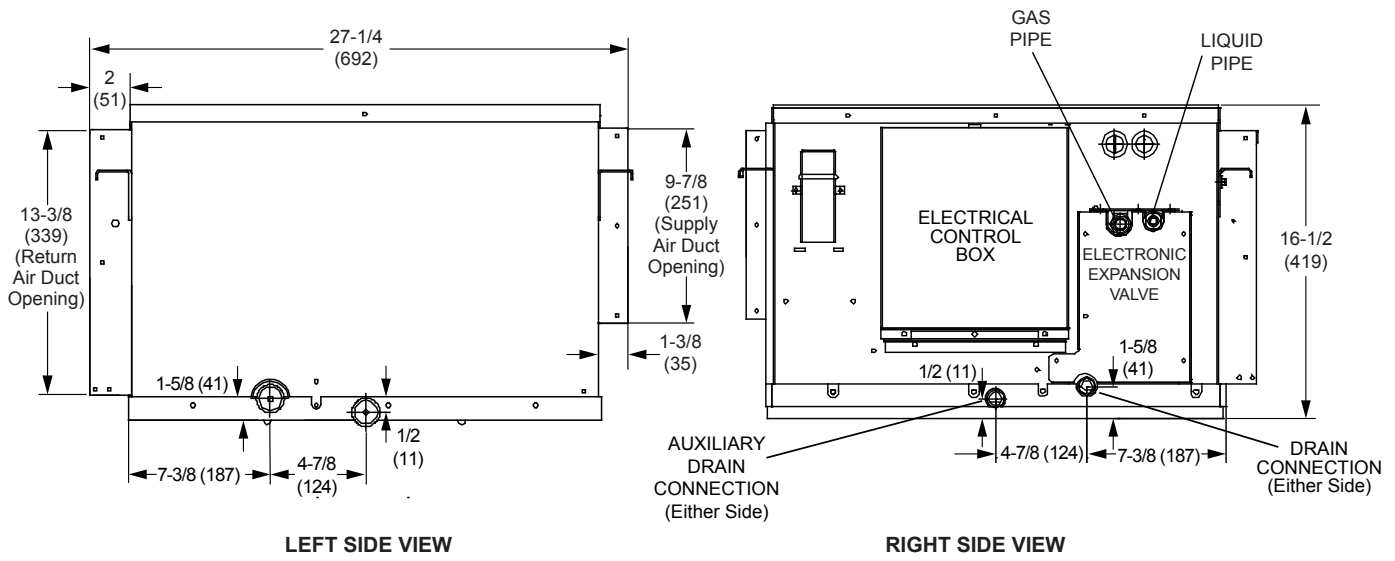
DIMENSIONS - INCHES (MM)

VOSA036S4, VOSA048S4



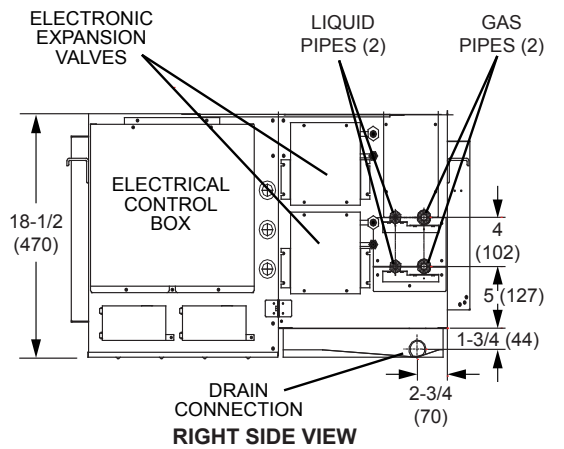
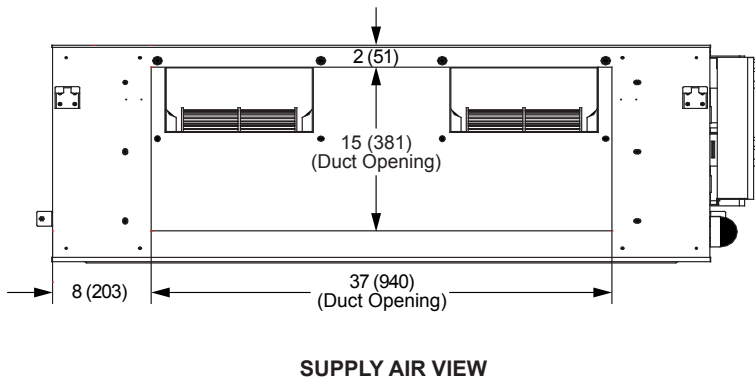
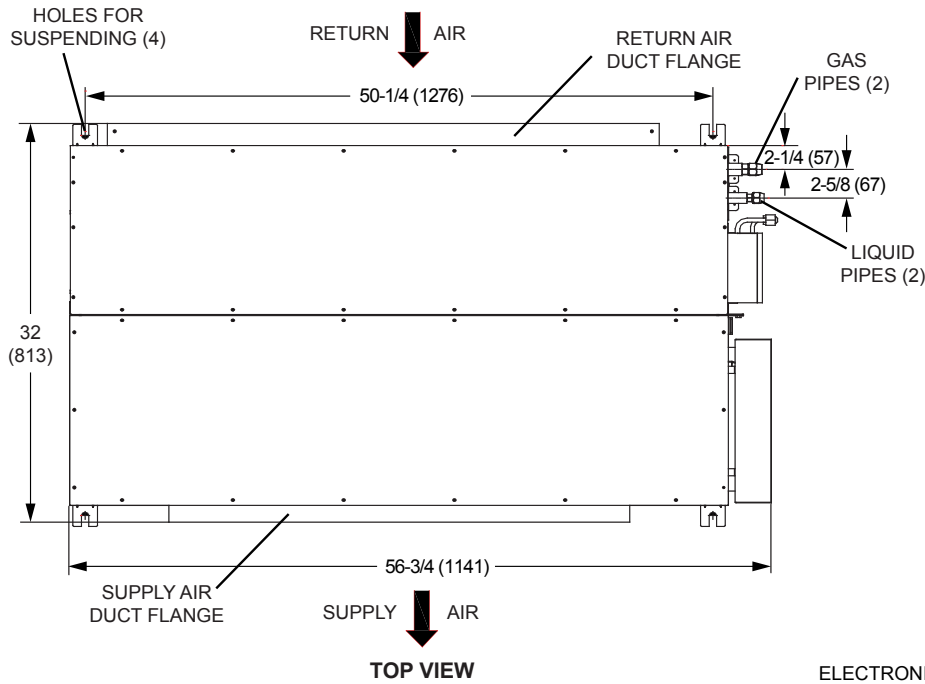
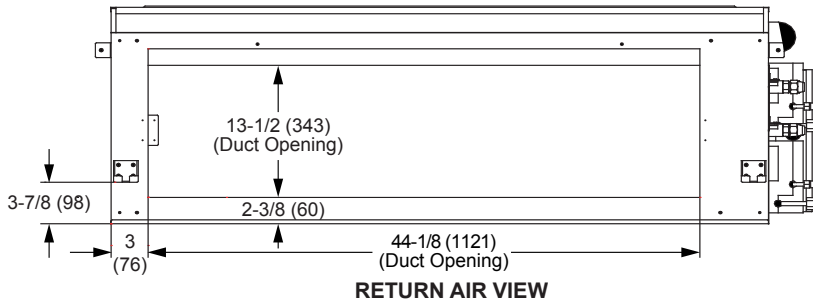
DIMENSIONS - INCHES (MM)

VOSA036S4, VOSA048S4

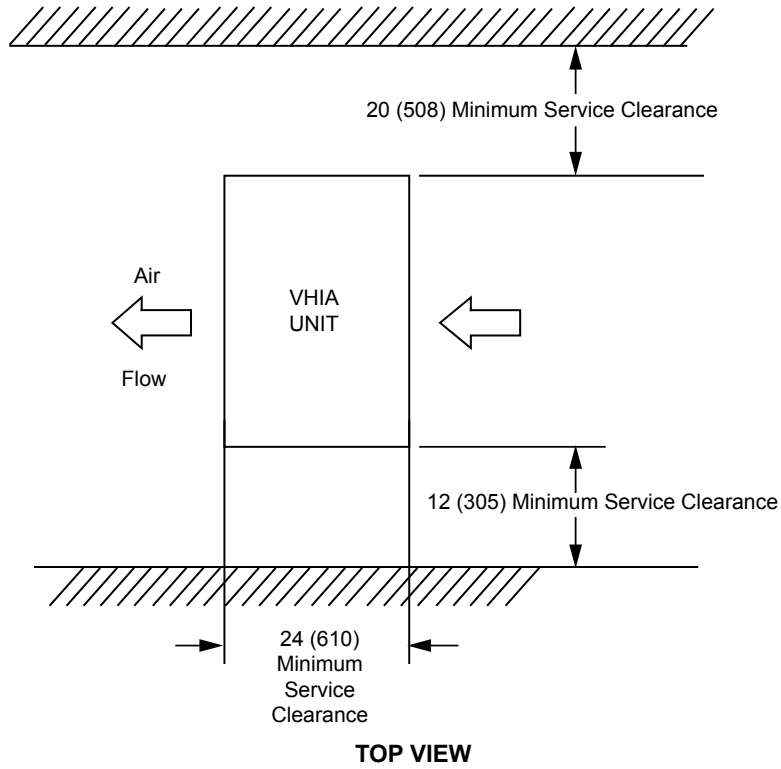


DIMENSIONS - INCHES (MM)

VOSA054S4, VOSA072S4

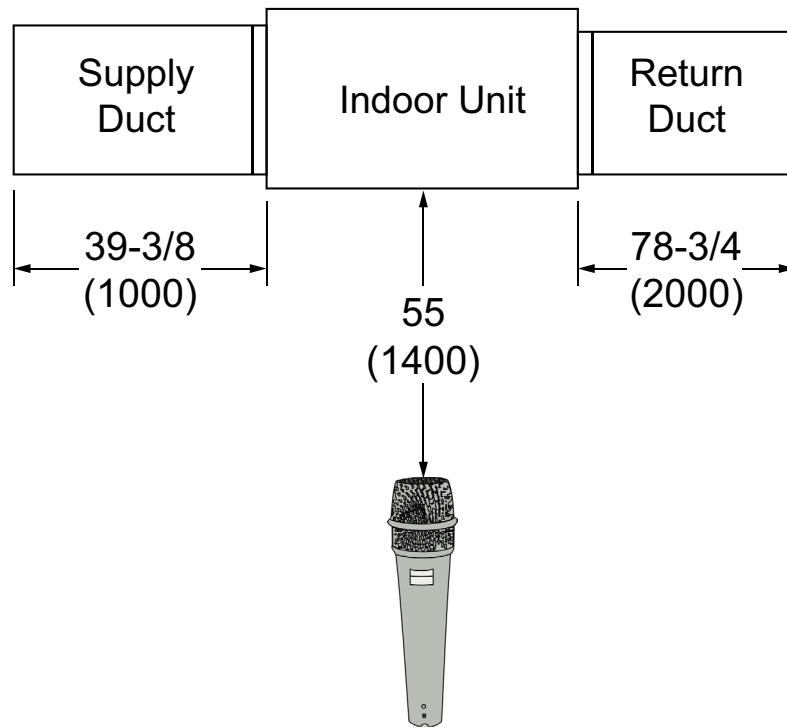


INSTALLATION CLEARANCES - INCHES (MM)



SOUND DATA

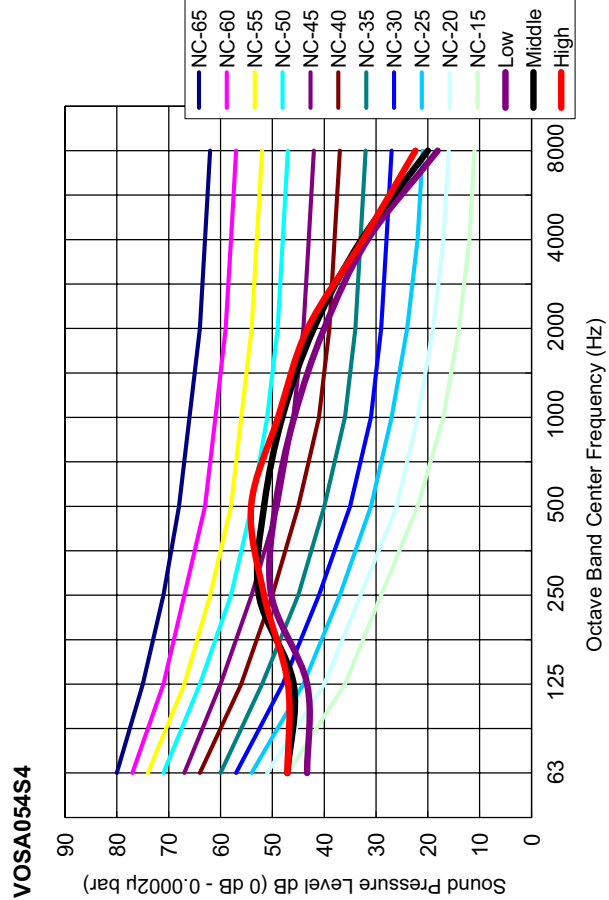
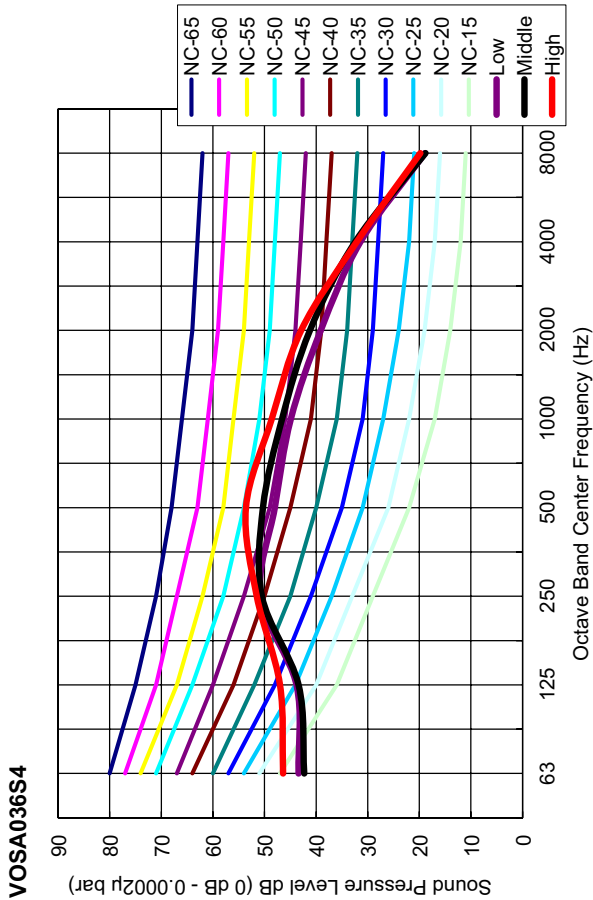
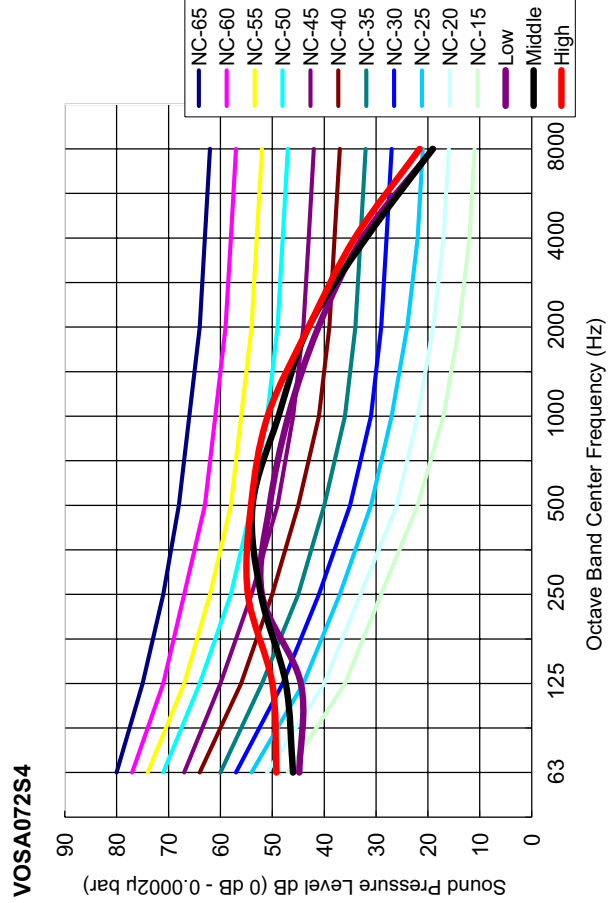
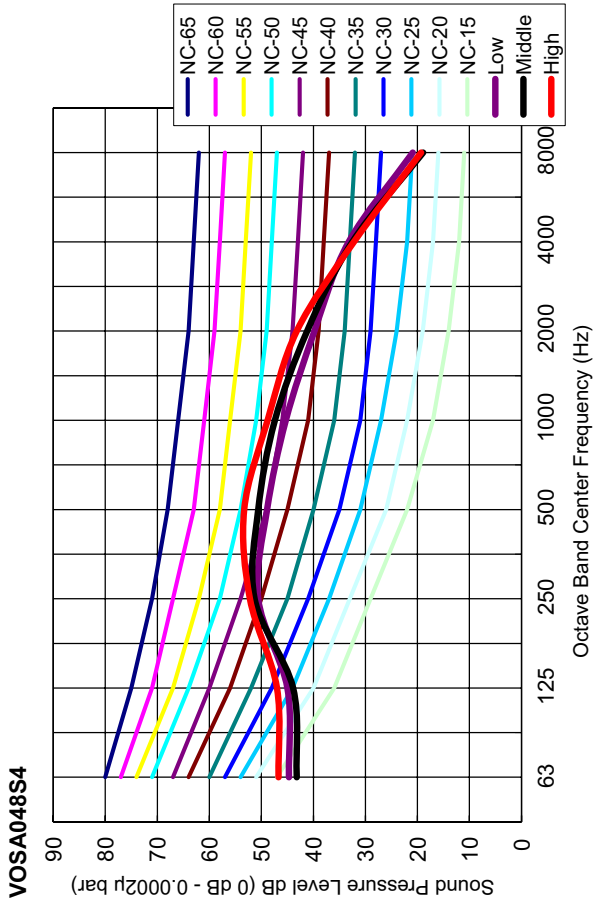
SOUND LEVELS



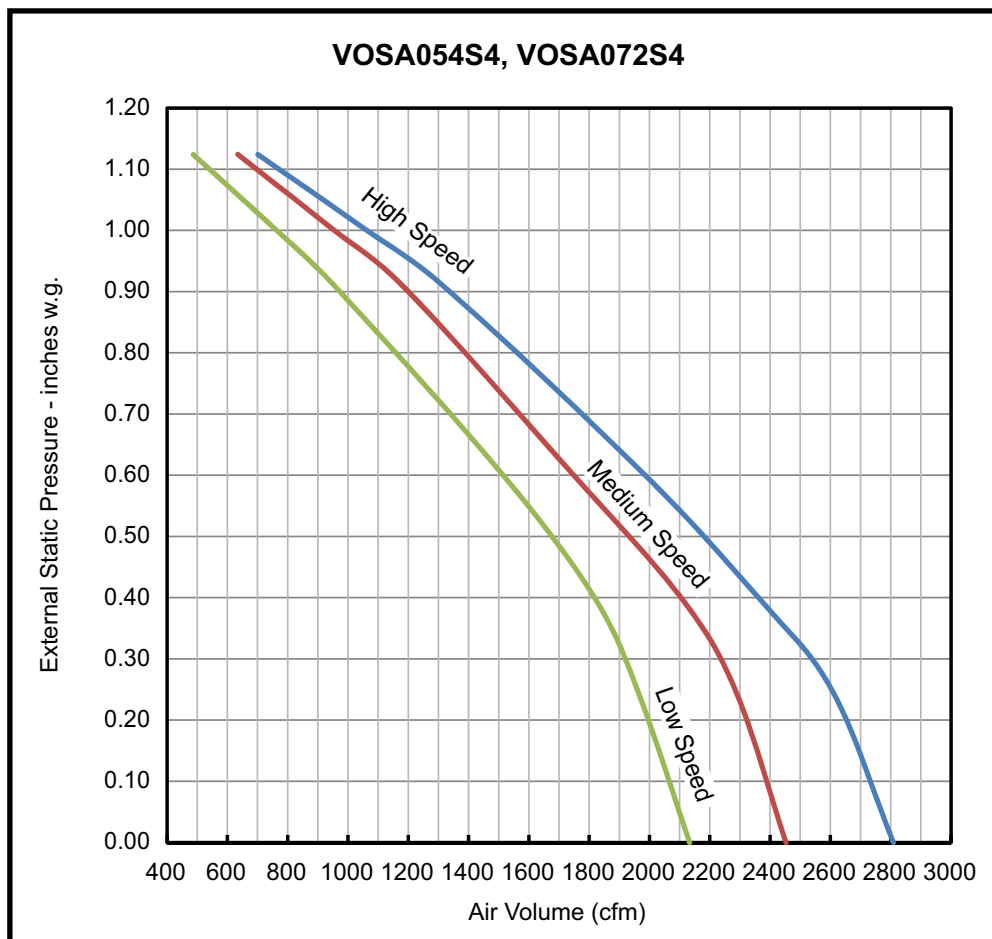
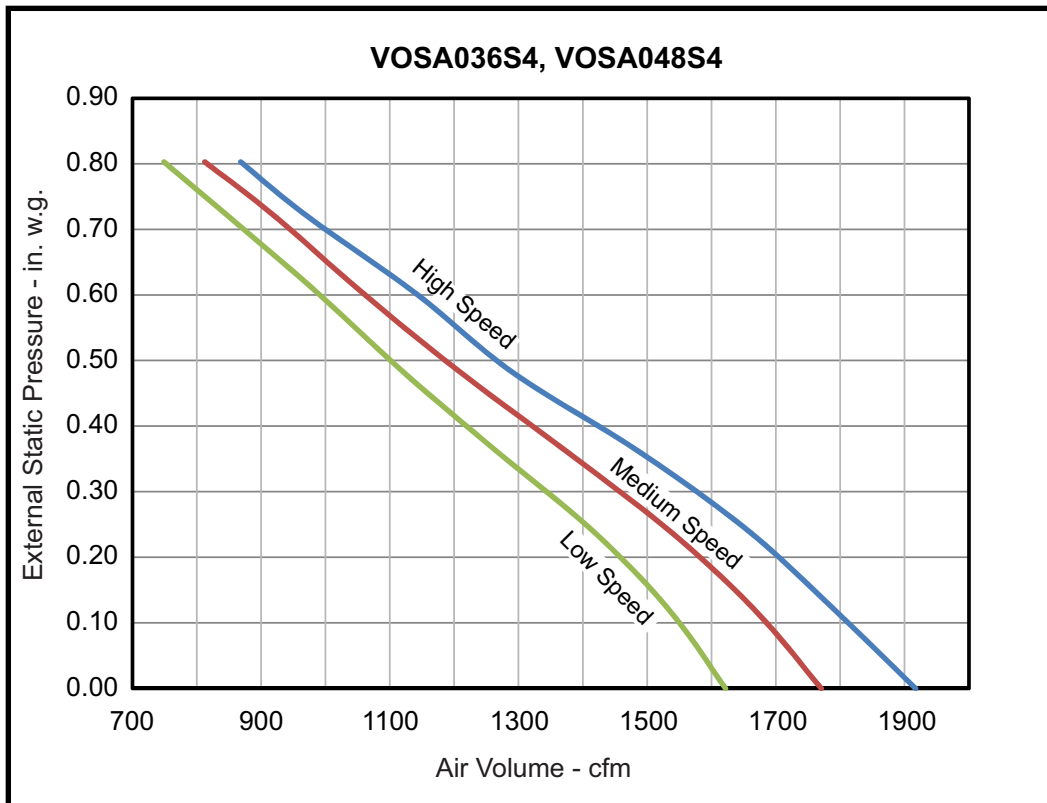
Model No.	Sound Rating Number (dBA)		
	Low	Medium	High
VOSA036S4	50	52	54
VOSA048S4	50	52	54
VOSA054S4	51	53	54
VOSA072S4	52	54	55

SOUND DATA

OCTAVE BAND LEVELS



BLOWER DATA



COOLING CAPACITY

Size	Outdoor Air Temperature °F (Dry Bulb)	Outdoor Air Temperature - °F (Wet Bulb)							
		59	62	68	73	78	82	86	89
		Total Capacity							
		Mbtuh	Mbtuh	Mbtuh	Mbtuh	Mbtuh	Mbtuh	Mbtuh	Mbtuh
036	68	9.72	13.50	---	---	---	---	---	---
	71	11.16	14.94	19.08	---	---	---	---	---
	77	12.96	16.38	20.52	28.80	---	---	---	---
	80	---	18.00	21.24	29.52	---	---	---	---
	84	---	---	21.96	30.42	32.40	---	---	---
	87	---	---	22.68	31.32	34.06	36.83	---	---
	91	---	---	23.40	31.14	33.55	36.00	42.05	---
	95	---	---	---	30.06	32.98	35.86	40.93	44.17
	102	---	---	---	---	32.26	35.50	40.36	43.42
	109	---	---	---	---	29.84	31.25	36.14	37.94
048	68	12.96	18.00	---	---	---	---	---	---
	71	14.88	19.92	25.44	---	---	---	---	---
	77	17.28	21.84	27.36	38.40	---	---	---	---
	80	---	24.00	28.32	39.36	---	---	---	---
	84	---	---	29.28	40.56	43.20	---	---	---
	87	---	---	30.24	41.76	45.41	49.10	---	---
	91	---	---	31.20	41.52	44.74	48.00	56.06	---
	95	---	---	---	40.08	43.97	47.81	54.58	58.90
	102	---	---	---	---	43.01	47.33	53.81	57.89
	109	---	---	---	---	39.79	41.66	48.19	50.59
054	68	14.58	20.25	---	---	---	---	---	---
	71	16.74	22.41	28.62	---	---	---	---	---
	77	19.44	24.57	30.78	43.20	---	---	---	---
	80	---	27.00	31.86	44.28	---	---	---	---
	84	---	---	32.94	45.63	48.60	---	---	---
	87	---	---	34.02	46.98	51.08	55.24	---	---
	91	---	---	35.10	46.71	50.33	54.00	63.07	---
	95	---	---	---	45.09	49.46	53.78	61.40	66.26
	102	---	---	---	---	48.38	53.24	60.53	65.12
	109	---	---	---	---	44.77	46.87	54.22	56.92
072	68	19.44	27.00	---	---	---	---	---	---
	71	22.32	29.88	38.16	---	---	---	---	---
	77	25.92	32.76	41.04	57.60	---	---	---	---
	80	---	36.00	42.48	59.04	---	---	---	---
	84	---	---	43.92	60.84	64.80	---	---	---
	87	---	---	45.36	62.64	68.11	73.66	---	---
	91	---	---	46.80	62.28	67.10	72.00	84.10	---
	95	---	---	---	60.12	65.95	71.71	81.86	88.34
	102	---	---	---	---	64.51	70.99	80.71	86.83
	109	---	---	---	---	59.69	62.50	72.29	75.89

NOTE - MBH = 1000 BTUs per hour.

HEATING CAPACITY

Size	Outdoor Air Temperature (°F)	Outdoor Air Temperature - °F (Wet Bulb)								
		19	22	26	32	35	39	42	50	57
	Dry Bulb	Total Capacity								
		Mbtuh	Mbtuh	Mbtuh	Mbtuh	Mbtuh	Mbtuh	Mbtuh	Mbtuh	Mbtuh
036	23	24.00	24.00	---	---	---	---	---	---	---
	32	---	---	30.00	---	---	---	---	---	---
	37	---	---	33.00	33.00	33.00	---	---	---	---
	44	---	---	---	---	33.90	33.90	33.90	---	---
	51	---	---	---	---	---	35.70	35.70	35.70	---
	59	---	---	---	---	---	---	34.20	34.20	34.20
048	23	32.00	32.00	---	---	---	---	---	---	---
	32	---	---	40.00	---	---	---	---	---	---
	37	---	---	44.00	44.00	44.00	---	---	---	---
	44	---	---	---	---	45.20	45.20	45.20	---	---
	51	---	---	---	---	---	47.60	47.60	47.60	---
	59	---	---	---	---	---	---	45.60	45.60	45.60
054	23	36.00	36.00	---	---	---	---	---	---	---
	32	---	---	45.00	---	---	---	---	---	---
	37	---	---	49.50	49.50	49.50	---	---	---	---
	44	---	---	---	---	50.85	50.85	50.85	---	---
	51	---	---	---	---	---	53.55	53.55	53.55	---
	59	---	---	---	---	---	---	51.30	51.30	51.30
072	23	50.16	50.16	---	---	---	---	---	---	---
	32	---	---	57.00	---	---	---	---	---	---
	37	---	---	62.70	62.70	62.70	---	---	---	---
	44	---	---	---	---	64.41	64.41	64.41	---	---
	51	---	---	---	---	---	67.83	67.83	67.83	---
	59	---	---	---	---	---	---	64.98	64.98	64.98

NOTE - MBH = 1000 BTUs per hour.

REVISIONS

Sections	Description of Change
Specifications	Added filter sizes.



Visit us at www.lennox.com

For the latest technical information, www.lennoxcommercial.com

Contact us at 1-800-4-LENNOX

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

©2017 Lennox Industries, Inc.