



AIR-TO-AIR HEAT PUMP SYSTEM

Ducted single zone heat pump solution

VITOCAL 100-S



The best of two technologies in one whole-home system.

High performing inverter heat pump technology with the familiarity of traditional ductwork.



R454B

Get the benefits of inverter technology and traditional HVAC - all at once



Reasons to love Viessmann single zone ducted heat pump solutions

The Best Of Two Technologies In One Whole-Home System

Viessmann single zone ducted heat pump solutions combine the best of inverter heat pumps and traditional HVAC. That means you get the quiet operation, small footprint and enhanced efficiency of inverter technology and the high performance of traditional ducted units.

Performance in All Climates

With high performance in extreme temperatures, the Viessmann single zone ducted units provide reliable heating and cooling even in extreme weather, from -22°F to 122°F (-30°C to 50°C). With a traditional ducted air handler or cased evaporator coil, it's easy to incorporate powerful and efficient comfort into new or existing ducted systems.

Save On Energy And Operational Costs

Inverter technology provides consistent temperature control and can reduce energy costs by up to 30%. Energy Star Certified units available up to 19.0 SEER2 and 10.3 HSPF2.

Sustainable Solution

High Efficiency R454B refrigerant achieves a 75% reduction in global warming potential and is non-ozone depleting for a lower climate impact.

Hassle-Free Retrofitting

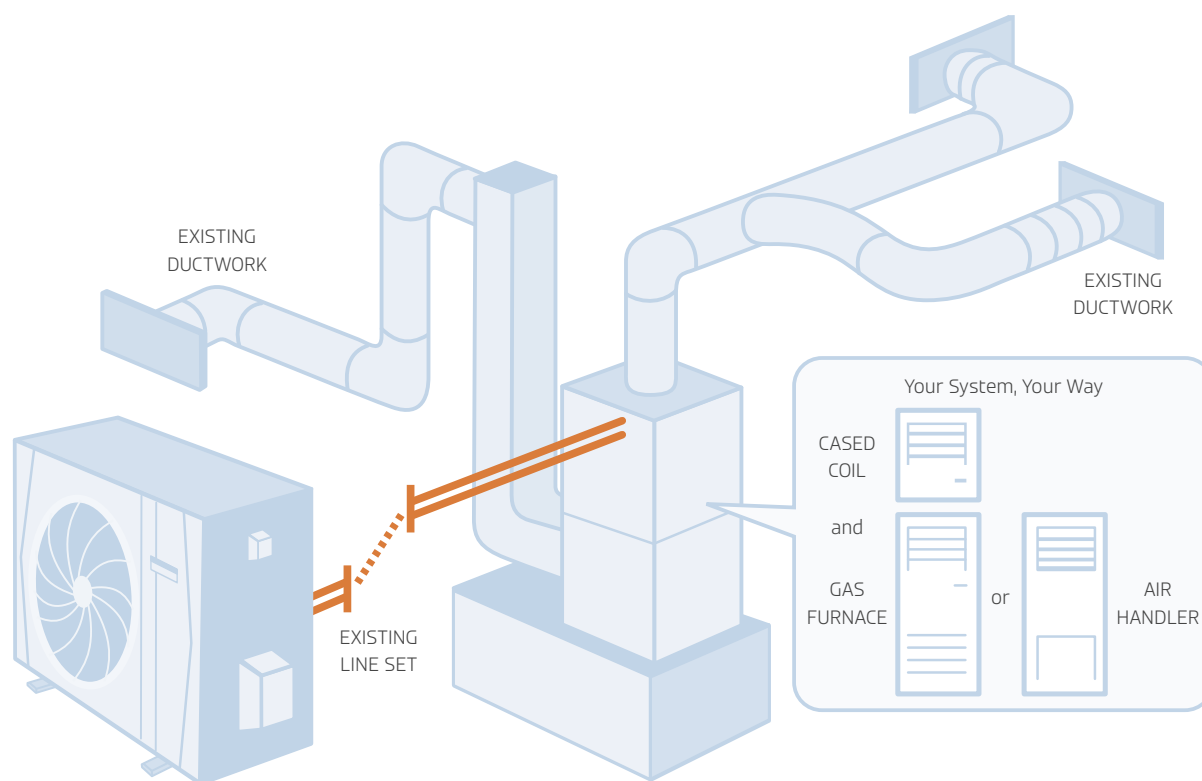
Easy integration with existing equipment and piping makes upgrading air systems a breeze. You decide what to keep or upgrade, the Vitocal 100-S ducted single zone heat pump solution integrates with existing systems and components.

Compact Design

A low-profile, unobtrusive outdoor unit delivers efficient comfort in a quarter of the space of a traditional top discharge outdoor unit. Making this system an ideal option for homes with zero lot lines or limited outdoor space.

Whisper Quiet Operation

Ultra-quiet operation reduces noise pollution both indoors and outdoors for more peaceful, comfortable spaces.



The Vitocal 100-S Ducted Difference

Seamless Integration With Existing HVAC Systems

The Viessmann Vitocal 100-S ducted single zone heat pump is a unique solution that provides the benefits of high efficiency, quiet, and space-saving inverter technology while allowing you to re-use existing HVAC line sets, ductwork, air handler, or furnaces.

The Viessmann Vitocal 100-S Ducted heat pump solution is an ideal choice when upgrading your home's current HVAC system, constructing a new home or adding on to an existing one.

Spend Less On Variable Speed Features

Viessmann variable speed inverter technology delivers high efficiency performance, whisper quiet operation, and energy savings all while taking up a quarter of the space of a traditional heat pump or air conditioner.

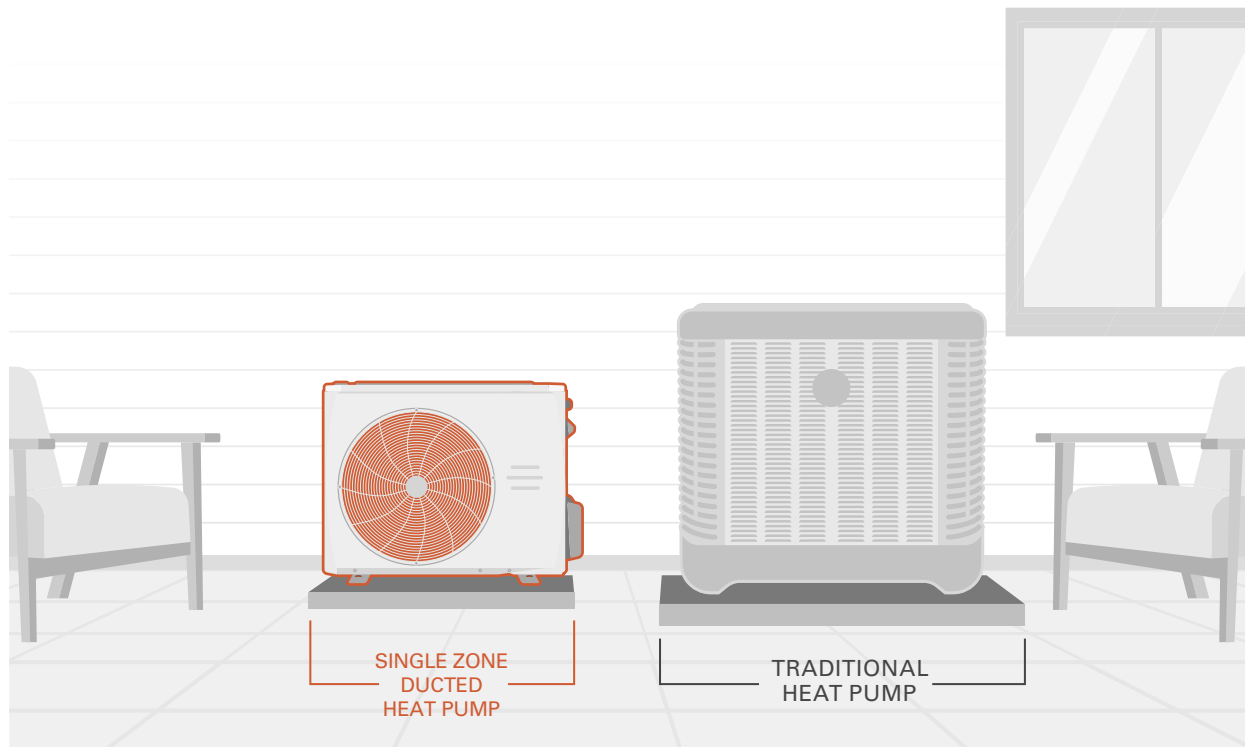
Save Time And Money With a Mess-Free Installation

If you want to add or upgrade an air conditioner or heat pump system, the Vitocal 100-S ducted single zone heat pump solution makes it simple to pair with an existing setup. Avoid ripping through walls with this seamless mess-free installation. The best news of all is that the connection between the outside unit and the inside unit stays the same. You can reuse existing infrastructure, resulting in faster cost-efficient installation.

Keep Your Furnace Or Go Electric

Whether you want to keep your furnace for dual fuel, or convert to an all-electric heat pump system the Vitocal 100-S ducted single zone heat pump solution adapts to your comfort requirements with the ability to integrate with your existing HVAC system.

▲ A compact outdoor unit that delivers efficient comfort in a quarter of the space ▲



It is no secret that inverter and traditional HVAC heat pump systems each have their own set of advantages. So why not reap the benefits of both? With Viessmann single zone ducted units you get the versatility and flexibility you have been looking for by combining traditional indoor HVAC equipment with advanced inverter heat pump technology.

Viessmann single zone ducted heat pump solutions provide a system that maintains the traditional ducted heating and cooling characteristics while leveraging inverter technology. Our systems are compatible with residential fan coils and furnaces, ensuring a seamless integration with your existing HVAC setup.

Versatile HVAC Systems For Endless Comfort Possibilities

Our single zone ducted heat pump solutions seamlessly blend inverter technology with traditional HVAC ducts, furnaces and fan coils - all in a single system. The result? An exceptionally efficient, high performance and totally versatile solution for residential and light commercial spaces.

Ducted Heat Pump Solutions Deliver On Benefits

To help professionals stay competitive and successful, Viessmann offers a family of flexible solutions that fit a range of needs. Extremely efficient and high-performing, these systems help solve homeowners biggest heating and cooling challenges.

Whether you are looking to give your existing HVAC system a boost of efficiency, increase capacity for an expansion or find the perfect fit for a new build—this portfolio provides the advanced comfort and flexibility to meet the needs of any application.

Efficient Inverter Technology

Viessmann single zone ducted heat pump systems use inverter technology which continually adjusts the compressor speed as conditions change, for consistent comfort with lower energy usage. Plus, enjoy year-round comfort with powerful low ambient heating and cooling down to -22°F (-30°C)*.

* Outdoor unit operating ranges may vary by model

Installation Flexibility

Simple Retrofit Installation

Easily connect systems to existing line sets ductwork, controlled via third-party thermostats with no additional accessories or interfaces required, resulting in a seamless mess-free installation.

Low Ambient Cooling Kit

With a built-in low ambient cooling kit or custom designed PCB, outdoor fan speeds can be changed automatically based on the temperature. The unit can run cooling operation even in low ambient temperatures.

Multi-position Air Handler

4-way installation for added installation flexibility (Up flow, Down flow, Right, Left) with automatic airflow technology for static pressure up to 0.8 inWG.

Future Ready Refrigerant

Sustainable and Highly efficient, R454B provides 75% less GWP and Zero ODP while maintaining high performance even in harsh climates.

Third-Party Thermostat Compatibility

Vitocal ducted heat pumps come ready to connect with your favorite brand of thermostat.

Minimal Footprint

Easier to install, transport, and store with a compact design compared to traditional top discharge units.

Larger Capacity Options

The Viessmann Vitocal 100-S ducted single zone heat pumps are offered in capacities large enough to accommodate light commercial applications while delivering the same quiet optimized performance of our residential capacities.

CHALLENGES DUCTED CAN SOLVE

- + Existing HVAC systems with low efficiencies
- + Direct system replacements
- + New build construction
- + Limited outdoor space

BENEFITS AT A GLANCE

- + Energy savings - Energy Star Certified units available up to 19 SEER2 and 10.3 HSPF2
- + Comfort in any climate - Operate in temperatures as low as -22°F (-30°C) and as high as 122°F (50°C). Can serve as the primary heat source, eliminating the need for a backup
- + Easy retrofit installation - Easily connect systems to existing line sets and ductwork
- + Flexible options - Compatible with third-party thermostats with built-in 24V interface

PERFORMANCE

Outdoor Unit (Standard Heat)
Vitocal 100-S / D5CURAH Series

Outdoor Size		18K	24K	30K	36K	48K	60K
Outdoor Model		D5CURAH18AAK	D5CURAH24AAK	D5CURAH30AAK	D5CURAH36AAK	D5CURAH48AAK	D5CURAH60AAK
ELECTRICAL							
Voltage, Phase, Cycle	V/Ph/Hz			208/230-1-60			
MCA	A.	16	19	22.5	24	36	39
Recommended Fuse Size	A.	20	20	25	30	40	40
OPERATING RANGE							
Cooling Outdoor DB Min-Max	°F (°C)			-13-122(-25-50)			
Heating Outdoor DB Min-Max	°F (°C)			-13-75(-25-24)			
PIPING							
Liquid Pipe (size - connection type)	In (mm)	3/8in (9.52mm)	3/8in (9.52mm)	3/8in (9.52mm)	3/8in (9.52mm)	3/8in (9.52mm)	3/8in (9.52mm)
Suction Pipe (size - connection type)	In (mm)	3/4in (19mm)	3/4in (19mm)	3/4in (19mm)	3/4in (19mm)	3/4in (19mm)	3/4in (19mm)
Min. Piping Length	ft. (m)	10 (3)	10 (3)	10 (3)	10 (3)	10 (3)	10 (3)
Standard Piping Length	ft. (m)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)	24.6 (7.5)
REFRIGERANT							
Refrigerant Type	Type	R454B	R454B	R454B	R454B	R454B	R454B
Charge Amount	lb. (kg)	3.2(1.45)	4.63(2.1)	5.73(2.6)	7.28(3.3)	8.38(3.8)	8.38(3.8)
Additional refrigerant charge	Oz/ft (g/m)	0.7(65)	0.7(65)	0.7(65)	0.7(65)	0.7(65)	0.7(65)
Metering Device		EEV	EEV	EEV	EEV	EEV	EEV
SYSTEM SIZE							
Height (H)	in	21.81	26.5	31.89	31.89	38.39	38.39
	mm	554	673	810	810	975	975
Width (W)	in	31.69	35.04	37.24	37.24	38.58	38.58
	mm	805	890	946	946	980	980
Depth (D)	in	12.99	13.46	16.14	16.14	16.34	16.34
	mm	330	342	410	410	415	415
Weight -Net	lbs.	77.16	102.29	141.76	153.22	192.9	192.9
	kg	35	46.4	64.3	69.5	87.5	87.5
Sound Pressure	dB(A)	55	60	60	63	65	65

* Condensing unit above or below indoor unit

Outdoor Unit (Standard Heat) Vitocal 100-S / D5CURAH Series

Indoor model		D5FUA AH18XAK	D5FUA AH24XAK	D5FUA AH30XAK	D5FUA AH36XAK	D5FUA AH48XAK	D5FUA AH60XAK	
Outdoor model		D5CURAH18AAK	D5CURAH24AAK	D5CURAH30AAK	D5CURAH36AAK	D5CURAH48AAK	D5CURAH60AAK	
Power supply		V;Ph;Hz	208/230V; 1Ph;60HZ	208/230V; 1Ph;60HZ	208/230V; 1Ph;60HZ	208/230V; 1Ph;60HZ	208/230V; 1Ph;60HZ	
PERFORMANCE DATA	Cooling Rated Capacity (DOE A2 - 95°F)	Btu/h	18000	24000	30000	36000	48000	54000
	Cooling Capacity Range	Btu/h	5350-20000	7200-27000	10400-34000	8300-38900	16600-49900	21000-55000
	SEER2	Btu/h.W	18.8	18.2	17	16.2	16	15.2
	EER2 (DOE A2 - 95°F)	Btu/h.W	11	11	10.8	10	10	8.7
	Heating Rated Capacity (DOE H12 - 47°F)	Btu/h	18000	26000	31000	36000	48000	54000
	Heating Capacity Range	Btu/h	5600-19000	7100-30000	6400-32000	6700-41300	15300-49500	26000-55000
	COP (DOE H12 - 47°F)	W/W	3.15	3.18	3.5	3.4	3.45	3.37
	HSPF2 IV	Btu/h.W	9.2	9.7	8.5	8.7	8.5	8.4
	HSPF2 V	Btu/h.W	7	7.7	6.6	7	7.2	6.8
	Cooling Rated Capacity (DOE B2 - 82°F)	Btu/h	18800	25600	32400	36400	44000	55000
	EER (DOE B2 - 82°F)	Btu/h.W	13	13.8	13.5	12.1	10.9	10
	Heating Rated Capacity (DOE H32 - 17°F)	Btu/h	12600	20000	18500	25600	32400	33000
	COP (DOE H32 - 17°F)	W/W	2.6	2.42	2.4	2.6	2.47	2.34
	Heating Maximum Capacity (17°F)	Btu/h	12600	22000	20600	30000	39000	40000
	Heating Rated Capacity (DOE H42 - 5°F)	Btu/h	11200	21600	19100	27000	38000	38000
	COP (DOE H42 - 5°F)	W/W	2	1.87	2	2	1.85	1.8
Heating Maximum Capacity (5°F)	Btu/h	11200	21600	19100	27000	38000	38000	

Outdoor Unit (High Heat)

Vitocal 100-S / D5CUHAH Series

SYSTEM							
Outdoor Size		1.5T - HH	2T - HH	2.5T - HH	3T - HH	4T - HH	5T - HH
Outdoor Model		D5CUHAH18AAK	D5CUHAH24AAK	D5CUHAH30AAK	D5CUHAH36AAK	D5CUHAH48AAK	D5CUHAH60AAK
VOLTAGE				(208/230V)			
MINIMUM CIRCUIT AMPACITY (MCA)	A	16	19	29.5	29	38	40
MAXIMUM OVERCURRENT PROTECTION AMPACITY (MOPA)	A	20	20	30	30	40	40
OPERATING RANGE							
Cooling Outdoor DB Min-Max	°F (°C)			-22-130 (-30-55)			
Heating Outdoor DB Min-Max	°F (°C)			-22-86 (-30-30)			
PIPING							
Min. Piping Length	ft. (m)			10 (3)			
Standard Piping Length	ft. (m)			24.6 (7.5)			
Max Piping Lift*	ft. (m)	65.6 (20)	82 (25)	82 (25)	98.4 (30)	98.4 (30)	98.4 (30)
Suction Pipe (size - connection type)	in (mm)	ø3/4" (19)	ø3/4" (19)	ø3/4" (19)	ø3/4" (19)	ø3/4" (19)	ø3/4" (19)
Liquid Pipe (size-connection)	in (mm)			ø3/8" (9.52)			
REFRIGERANT							
Refrigerant Type	Type			R454B			
Charge Amount	lb. (kg)	4.63 (2.1)	4.63 (2.1)	6.61 (3.0)	7.94 (3.6)	8.38 (3.8)	11.46 (5.2)
Additional Refrigerant Charge (when Pipe length > 24.6 ft)	Oz/ft (g/m)	0.7(65)	0.7(65)	0.7(65)	0.7(65)	0.7(65)	0.7(65)
Total Maximum Piping Length per system	ft. (m)	98.42 (30)	164.04 (50)	164.04 (50)	246 (75)	246 (75)	246 (75)
DIMENSIONS AND WEIGHTS		18K	24K	30K	36K	48K	60K
				(208/230 V)			
Height (H)	in (mm)	26.50(673)	26.50(673)	31.89(810)	38.39(975)	38.39(975)	52.48(1333)
Width (W)	in (mm)	35.04(890)	35.04(890)	37.24(946)	38.58(980)	38.58(980)	37.48(952)
Depth (D)	in (mm)	13.46(342)	13.46(342)	16.14(410)	16.34(415)	16.34(415)	16.34(415)
Weight -Net	lbs. (kg)	101.41(46)	102.29(46.4)	164.02(74.4)	204.15(92.6)	201.06(91.2)	242.95(110.2)
SOUND							
Sound Pressure	dB(A)	59	60.5	60.5	62.5	65	65

* Condensing unit above or below indoor unit

Outdoor Unit (High Heat)

Vitocal 100-S / D5CUHAH Series

INDOOR MODEL		D5FUA AH18XAK	D5FUA AH24XAK	D5FUA AH30XAK	D5FUA AH36XAK	D5FUA AH48XAK	D5FUA AH60XAK	
OUTDOOR MODEL		D5CUHAH18AAK	D5CUHAH24AAK	D5CUHAH30AAK	D5CUHAH36AAK	D5CUHAH48AAK	D5CUHAH60AAK	
POWER SUPPLY		V,Ph,Hz	208/230V,1 Ph,60HZ	208/230V; 1Ph,60HZ	208/230V; 1Ph,60HZ	208/230V,1 Ph,60HZ	208/230V; 1Ph,60HZ	208/230V; 1Ph,60HZ
PERFORMANCE DATA	Cooling Rated Capacity (DOE A2 - 95°F)	Btu/h	18000	23000	30000	36000	48000	54000
	Cooling Capacity Range	Btu/h	5600-22000	7200-27000	12800-39000	9700-42000	15600-51000	11400-56300
	SEER2	Btu/h.W	19	18.4	16.9	17.4	16.5	16
	EER2 (DOE A2 - 95°F)	Btu/h.W	12.5	11.7	11.7	11.7	10.5	10
	Heating Rated Capacity (DOE H12 - 47°F)	Btu/h	19000	24000	34000	37000	50000	56000
	Heating Capacity Range	Btu/h	6000-22000	7100-30000	10300-38500	11000-48000	15500-57300	8100-64500
	COP (DOE H12 - 47°F)	W/W	3.2	3.33	3.65	3.6	3.4	3.1
	HSPF2 IV	Btu/h.W	9.8	10	10	10.3	9.5	9
	HSPF2 V	Btu/h.W	8	8	8.3	8.6	8	8
	Cooling Rated Capacity (DOE B2 - 82°F)	Btu/h	19400	24000	33000	39500	50000	49500
	EER2 (DOE B2 - 82°F)	Btu/h.W	16	14.3	15.1	14.3	12.5	11.5
	Heating Rated Capacity (DOE H32 - 17°F)	Btu/h	15000	20000	23800	31800	37000	45000
	COP (DOE H32 - 17°F)	W/W	2.6	2.42	2.77	2.55	2.7	2.39
	Heating Maximum Capacity (17°F)	Btu/h	21600	22000	37800	41000	48000	50400
	Heating Rated Capacity (DOE H42 - 5°F)	Btu/h	18000	21600	32600	39000	46000	52000
	COP (DOE H42 - 5°F)	W/W	2	1.87	1.96	1.9	1.9	1.8
Heating Maximum Capacity (5°F)	Btu/h	18000	21600	32600	39000	46000	52000	

Air Handler Indoor Unit

Vitocal IND-A / D5FUAA Series

System	Indoor Size		18K	24K	30K	36K	48K	60K
Electrical	Voltage, Phase, Cycle	V/Ph/Hz	115-208/230-1-60	115-208/230-1-60	115-208/230-1-60	115-208/230-1-60	115-208/230-1-60	115-208/230-1-60
	Minimum Circuit Ampacity (MCA) 115V	A	5.5	5.5	8	8	14.5	14.5
	Minimum Circuit Ampacity (MCA) 208/230V	A	4	4	6	6	11	11
	Recommended Fuse Size	A.	5	5	5	10	10	10
	MOP - Fuse Rating	A.	15	15	15	15	15	15
Operating Range	Cooling Indoor DB Min - Max	°F(°C)	60~90 (16~32)	60~90 (16~32)	60~90 (16~32)	60~90 (16~32)	60~90 (16~32)	60~90 (16~32)
	Heating Indoor DB Min - Max	°F(°C)	32~86(0~30)	32~86(0~30)	32~86(0~30)	32~86(0~30)	32~86(0~30)	32~86(0~30)
Piping	Pipe Connection Size - Liquid	in (mm)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)	3/8 (9.52)
	Pipe Connection Size - Suction	in (mm)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)
Refrigerant	Refrigerant Type		R454B	R454B	R454B	R454B	R454B	R454B
	Metering Device		EEV	EEV	EEV	EEV	EEV	EEV
Airflow & Sound	Number of Fan Speeds (low/med/high/turbo)		4	4	4	4	4	4
	Nominal Airflow (lowest to highest)	CFM	488/529/576/618	629/694/759/824	712/806/894/1088	865/971/1082/1188	906/1094/1282/1471	1135/1359/1582/1806
	Cooling Sound Pressure (low to high)	dB(A)	30.5/31.4/33.4/35.2	33.6/36.6/38.7/40.4	37.7/41.3/43.0/45.6	40.2/43.2/45.7/48.0	42.5/47.1/50.3/54.0	45.0/49.1/52.1/55.3
	Heating Sound Pressure (low to high)	dB(A)	29.8/30.7/34.0/35.3	32.4/36.9/39.6/40.6	29.5/36.9/43.0/43.2	35.6/40.7/46.8/46.7	43.7/46.8/50.2/52.7	43.4/48.0/53.0/60.5
	Max Static Pressure	In. W.G.	0.8	0.8	0.8	0.8	0.8	0.8
	Field Drain Pipe Size O.D.	in (mm)	3/4 (19.1)	3/4 (19.1)	3/4 (19.1)	3/4 (19.1)	3/4 (19.1)	3/4 (19.1)
System Size	Height (H)	in (mm)	45.00(1143)	45.00(1143)	49.02(1245)	49.02(1245)	52.99(1346)	52.99(1346)
	Width (W)	in (mm)	17.52(445)	17.52(445)	21.02(534)	21.02(534)	24.49(622)	24.49(622)
	Depth (D)	in (mm)	21.02(534)	21.02(534)	21.02(534)	21.02(534)	21.02(534)	21.02(534)
	Weight -Net	lbs. (kg)	105.82(48)	105.60(47.9)	128.97(58.5)	129.41(58.7)	162.92(73.9)	162.92(73.9)



Viessmann Manufacturing
Company (US) Inc.
Warwick, RI
(800) 288-0667
viessmann-us.com
A Carrier Company