



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.

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 130°F (-30°C to 55°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 18.0 SEER2 and 9.8 HSPF2.

Flexible Temperature Control

A built-in 24V interface ensures systems come ready to easily connect with your favorite brand of thermostat. Control your system, your way.

Hassle-Free Retrofitting

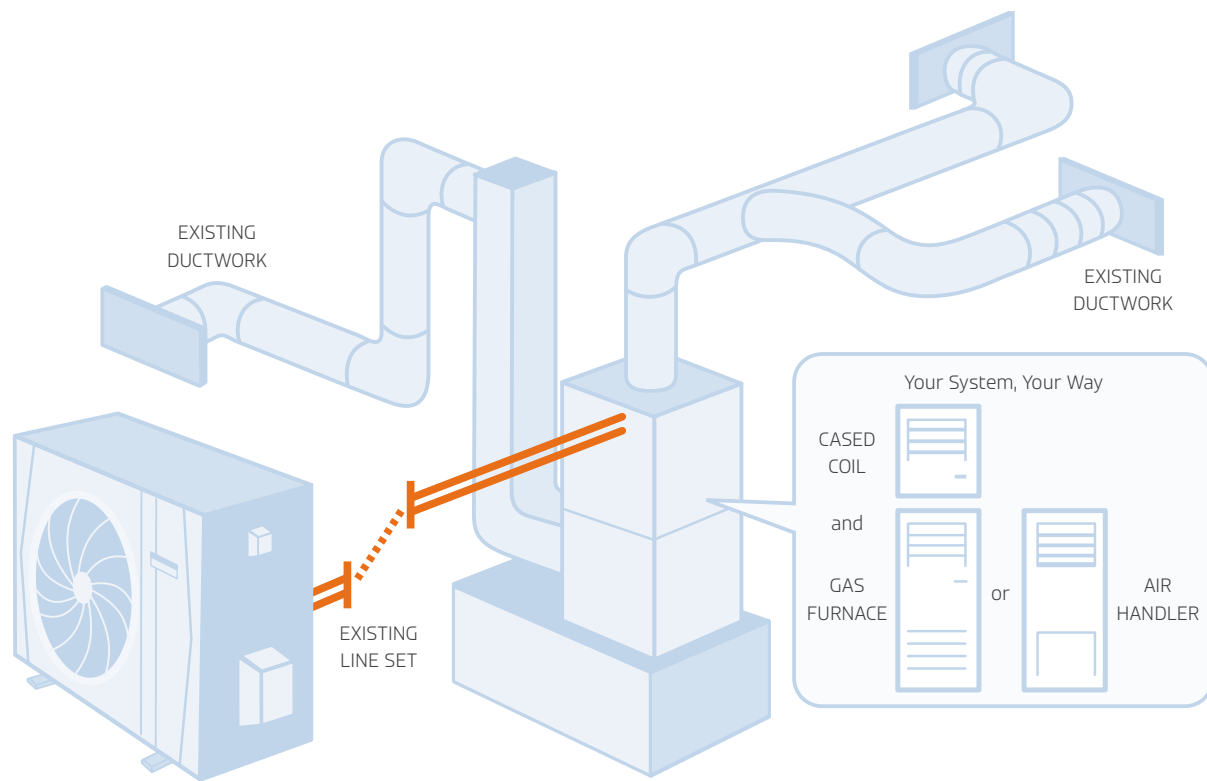
Easy integration with existing equipment and piping makes upgrading air systems a breeze. You decide what to keep or upgrade, the Vitocal 100-S ducted single zone heat pump solution integrates with existing systems and components.

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.

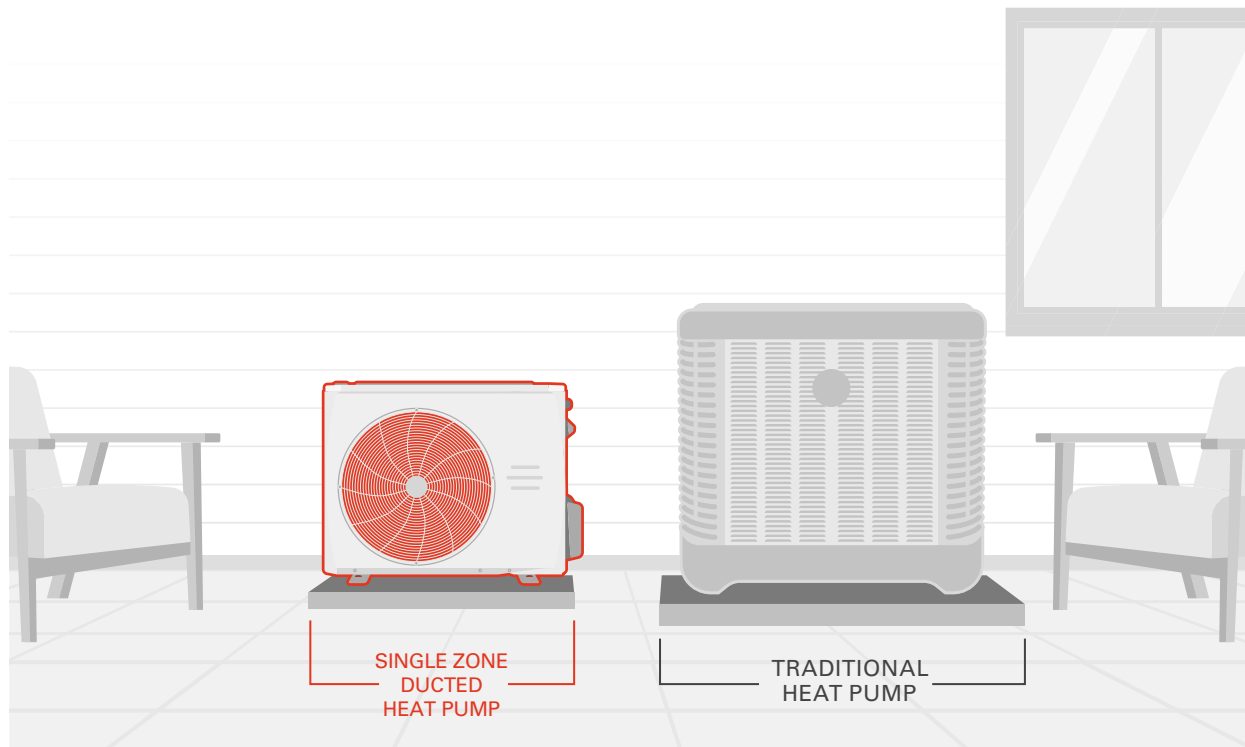
Save Time And Money With a Mess-Free Installation

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.

Easy Transport And Maneuverability

Units are a light enough weight to be carried by a single technician.

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.

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 18.0 SEER2 and 9.8 SPF2
- + 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 / DLCURAH Series

SYSTEM		1.5T	2T	2.5T	3T	4T	5T
Outdoor Size		1.5T	2T	2.5T	3T	4T	5T
Outdoor Model		DLCURAH18AAK	DLCURAH24AAK	DLCURAH30AAK	DLCURAH36AAK	DLCURAH48AAK	DLCURAH60AAK
ELECTRICAL							
Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
MCA	A.	16	19	20	24	34	34
Recommended Fuse Size	A.	20	20	25	25	35	35
MOPA - Fuse Rating	A.	20	30	35	40	50	60
Short Circuit Current Rating (SCCR)	kA	2.4	2.4	2.4	2.4	2.4	2.4
OPERATING RANGE							
Cooling Outdoor DB Min-Max	*F (*C)	5~130 (-15~55)	5~130 (-15~55)	5~130 (-15~55)	5~130 (-15~55)	5~130 (-15~55)	5~130 (-15~55)
Heating Outdoor DB Min-Max	*F (*C)	-5~86 (-15~30)	-5~86 (-15~30)	-5~86 (-15~30)	-5~86 (-15~30)	-5~86 (-15~30)	-5~86 (-15~30)
PIPING							
Total Piping Length	ft (m)	98 (30)	164 (50)	164 (50)	213 (65)	213 (65)	213 (65)
Piping Lift*	ft (m)	65 (20)	82 (25)	82 (25)	98 (30)	98 (30)	98 (30)
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)	7/8 (22)
REFRIGERANT							
RefrigerantType		R410A	R410A	R410A	R410A	R410A	R410A
Charge	lbs (kg)	3.53 (1.6)	4.63 (2.1)	6.72 (3.05)	8.16 (3.7)	10.4 (4.7)	10.8 (4.9)
Add'l Refrigerant (between Std & Max Piping Lengths)	Oz/ft (g/m)	0.69 (65)	0.69 (65)	0.69 (65)	0.69 (65)	0.69 (65)	0.69 (65)
Metering Device		EEV	EEV	EEV	EEV	EEV	EEV
OUTDOOR COIL							
Face Area	Sq. Ft.	5	5.9	8.18	8.14	13.53	13.36
No. Rows		2	2	2.6	3	2	3
Fins per inch		20	20	18	18	18	18
Circuits		4	6	6	6	8	14
COMPRESSOR							
Type		Rotary Inverter	Rotary Inverter	Rotary Inverter	Rotary Inverter	Rotary Inverter	Rotary Inverter
Model		KSN140D21UFZ	KTM240D57UMT	KTF250D22UMT	KTF250D22UMT	KTQ420D1UMU	KTQ420D1UMU
Oil Type		VG74	VG74	VG74	VG74	VG74	VG74
Oil Charge	Fl. Oz.	14.9	22.7	22.7	22.7	47.3	47.3
Rated Current	RLA	9	14	16	17.6	24	24.6
AIRFLOW & SOUND							
Airflow	CFM	1,450	1,765	3,000	2,235	4,500	4,412
Sound Pressure	dB(A)	54	60	62	61	59	61

* Condensing unit above or below indoor unit

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

Outdoor Size		1.5T	2T	2.5T	3T	4T	5T
M RATINGS							
Indoor Model		18K	24K	30K	36K	48K	60K
Cooling Rated Capacity	Btu/h	18,000	24,000	30,000	36,000	47,000	57,000
Cooling Cap. Range Min-Max	Btu/h	5400-18700	7500-26000	9500-33000	8900-38900	10500-48000	4400-60200
SEER		19.0	19.4	19.5	18.0	17.3	18.0
EER		11.1	11.3	10.9	10.4	9.3	10.3
Heating Rated Capacity (47°F)	Btu/h	18,000	26,000	31,000	36,000	55,000	60,000
Heating Rated Capacity (17°F)	Btu/h	11,500	17,000	19,000	21,000	33,000	33,800
Heating Rated Capacity (5°F)	Btu/h	9,500	17,000	20,000	21,000	27,000	29,000
Heating Cap. Range Min-Max	Btu/h	5600-18700	5600-30000	12200-32000	6000-36400	11700-57000	11400-63100
HSPF		10.8	11.3	10.3	9.1	10.0	9.2
COP (47°F)	W/W	3.49	3.54	3.19	3.02	3.00	3.55
COP (17°F)	W/W	2.70	2.75	2.30	2.25	2.00	2.45
COP (5°F)	W/W	1.85	1.75	1.95	1.80	1.72	1.80
M1 RATINGS							
Cooling Rated Capacity	Btu/h	18,000	24,000	30,000	36,000	47,000	57,000
Cooling Cap. Range Min-Max	Btu/h	5400-18700	7500-26000	9500-33000	8900-38900	10500-48000	4400-60200
SEER2		16.0	17.0	17.3	16.9	15.8	14.7
EER2		10.9	10.5	10.6	10.1	8.8	8.8
Heating Rated Capacity (47°F)	Btu/h	18,000	26,000	31,000	36,000	55,000	60,000
Heating Rated Capacity (17°F)	Btu/h	11,500	20,700	20,000	20,500	36,500	36,000
Heating Rated Capacity (5°F)	Btu/h	10,000	17,000	17,800	21,000	36,500	34,800
Heating Cap. Range Min-Max	Btu/h	5600-18700	5600-30000	12200-32000	6000-36400	11700-57000	11400-63100
HSPF2		8.8	9.2	8.5	8.2	9.4	8.5
COP (47°F)	W/W	3.50	3.45	3.25	3.39	3.15	3.45
COP (17°F)	W/W	2.75	2.40	2.45	2.40	2.30	2.35
COP (5°F)	W/W	1.90	2.00	1.75	1.88	1.98	1.89

Outdoor Unit (High Heat)

Vitocal 100-S / DLCURAH Series

SYSTEM							
Outdoor Size		1.5T - HH	2T - HH	2.5T - HH	3T - HH	4T - HH	5T - HH
Outdoor Model		DLCURAH18ABK	DLCURAH24ABK	DLCURAH30ABK	DLCURAH36ABK	DLCURAH48ABK	DLCURAH60ABK
ELECTRICAL							
Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
MCA	A.	16	20.5	23	41	42	42
Recommended Fuse Size	A.	20	25	25	45	45	45
MOCP - Fuse Rating	A.	20	35	35	50	50	60
Short Circuit Current Rating (SCCR)	kA	2.4	2.4	2.4	2.4	2.4	2.4
OPERATING RANGE							
Cooling Outdoor DB Min-Max	°F (°C)	-22-130 (-30-55)	-22-130 (-30-55)	-22-130 (-30-55)	-22-130 (-30-55)	-22-130 (-30-55)	-22-130 (-30-55)
Heating Outdoor DB Min-Max	°F (°C)	-22-86 (-30-30)	-22-86 (-30-30)	-22-86 (-30-30)	-22-86 (-30-30)	-22-86 (-30-30)	-22-86 (-30-30)
PIPING							
Total Piping Length	ft (m)	98 (30)	164 (50)	164 (50)	213 (65)	213 (65)	213 (65)
Piping Lift*	ft (m)	65 (20)	82 (25)	82 (25)	98 (30)	98 (30)	98 (30)
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)	7/8 (22)
REFRIGERANT							
Refrigerant Type		R410A	R410A	R410A	R410A	R410A	R410A
Charge	lbs (kg)	5.07 (2.3)	6.39 (2.9)	8.38 (3.8)	10.36 (4.7)	10.58 (4.8)	10.58 (4.8)
Add'l Refrigerant (between Std & Max Piping Lengths)	Oz/ft (g/m)	0.69 (65)	0.69 (65)	0.69 (65)	0.69 (65)	0.69 (65)	0.69 (65)
Metering Device		EEV	EEV	EEV	EEV	EEV	EEV
OUTDOOR COIL							
Face Area	Sq. Ft.	5.9	8.16	8.16	14.08	13.53	13.29
No. Rows		2	2	3	1.6	2	2.6
Fins per inch		20	20	20	18	18	20
Circuits		6	4	4	8	8	10
COMPRESSOR							
Type		Rotary Inverter	Rotary Inverter	Rotary Inverter	Rotary Inverter	Rotary Inverter	Rotary Inverter
Model		KTM240D57UMT	KTM240D57UMT	KTF310D43UMT	EAPQ420D1UMUA	EAPQ420D1UMUA	EAPQ440D1UMUA
Oil Type		VG74	VG74	VG74	VG74	VG74	VG75
Oil Charge	Fl.Oz.	22.7	22.7	33.8	49.4	49.4	43.96
Rated Current	RLA	10	15	16.5	32	33	28
AIRFLOW & SOUND							
Airflow	CFM	1,279	3,000	3,000	4,500	4,412	4,500
Sound Pressure	dB (A)	58	64	62	64	64	64

* Condensing unit above or below indoor unit

Outdoor Unit (High Heat)

Vitocal 100-S / DLCURAH Series

Outdoor Size		1.5T - HH	2T - HH	2.5T - HH	3T - HH	4T - HH	5T - HH
M RATINGS							
Indoor Model		18K	24K	30K	36K	48K	60K
EnergyStar		YES	YES	NO	NO	NO	NO
Cooling Rated Capacity	Btu/h	18,000	24,000	30,000	36,000	47,000	55,000
Cooling Cap. Range Min-Max	Btu/h	6900~21000	6400~27000	10400~33600	12000~47400	18000~48000	18000~56000
SEER		20.0	20.0	18.0	18.0	16.0	16.4
EER		12.5	12.5	11	10.5	8.5	9
Heating Rated Capacity (47°F)	Btu/h	19,000	24,000	33,000	41,500	50,000	59,000
Heating Rated Capacity (17°F)	Btu/h	13,000	18,700	19,400	24,000	33,000	33,800
Heating Rated Capacity (5°F)	Btu/h	19,000	24,000	28,500	34,500	32,000	42,000
Heating Cap. Range Min-Max	Btu/h	2800~21000	10100~31000	12000~37000	9000~57200	20000~55000	20000~68000
HSPF		11.0	12.0	10.5	10.5	10.0	10.5
COP (47°F)	W/W	3.59	3.45	3.48	3.45	3.00	3.50
COP (17°F)	W/W	2.75	2.70	2.60	2.65	2.30	2.60
COP (5°F)	W/W	1.90	1.80	1.95	1.80	1.88	1.96
M1 RATINGS							
Cooling Rated Capacity	Btu/h	18,000	24,000	30,000	36,000	47,000	55,000
Cooling Cap. Range Min-Max	Btu/h	6900~21000	6400~27000	10400~33600	12000~47400	18000~48000	18000~56000
SEER2		18.0	17.4	16.2	15.8	15.6	15.0
EER2		12.4	11.7	9.8	9.8	8.2	8.5
Heating Rated Capacity (47°F)	Btu/h	19,000	24,000	33,000	40,000	50,000	59,000
Heating Rated Capacity (17°F)	Btu/h	13,000	18,600	20,400	29,500	35,000	42,000
Heating Rated Capacity (5°F)	Btu/h	16,500	22,700	24,100	34,500	46,000	50,000
Heating Cap. Range Min-Max	Btu/h	2800~21000	10100~31000	12000~37000	9000~57200	20000~55000	20000~68000
HSPF2		9.2	9.8	8.8	9.5	9.3	9.0
COP (47°F)	W/W	3.60	3.40	3.30	3.35	3.15	3.00
COP (17°F)	W/W	2.50	2.40	2.30	2.40	2.30	2.60
COP (5°F)	W/W	2.00	1.85	1.80	1.95	1.90	1.96

Air Handler Indoor Unit

Vitocal IND-A / DLFUAA Series

SYSTEM							
Indoor Size		18K	24K	30K	36K	48K	60K
Indoor Model		DLFUAAH18XAK	DLFUAAH24XAK	DLFUAAH30XAK	DLFUAAH36XAK	DLFUAAH48XAK	DLFUAAH60XAK
ELECTRICAL							
Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
MCA	A.	2.5	4	4.5	5	7.5	9
Recommended Fuse Size	A.	5	5	5	10	10	10
MOPA - 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)	7/8 (22)
REFRIGERANT							
Refrigerant Type		R410A	R410A	R410A	R410A	R410A	R410A
Metering Device		EEV	EEV	EEV	EEV	EEV	EEV
INDOOR COIL							
Face Area	Sq. Ft.	3	3	3.8	3.8	3.8	4.88
No. Rows		3	3	4	4	4	5
Fins Per Inch		20	20	20	20	20	20
Circuits		6	6	10	10	10	14
AIRFLOW & SOUND							
Number of Fan Speeds (low/med/high/turbo)		4	4	4	4	4	4
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)



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