



Klimaire®

N SERIES

15
SEER



Mini Split Air Conditioners and Heat Pump

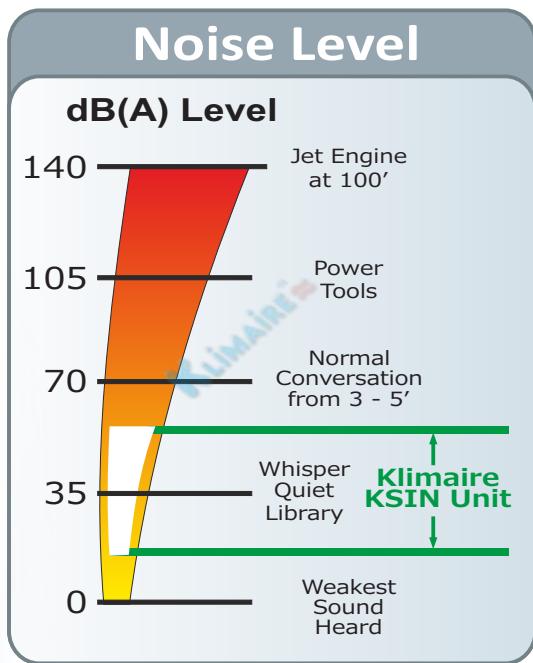
Ksin



DC INVERTER TECHNOLOGY

Environment concern is a priority all over the world.
Environment concern is our responsibility and working philosophy.



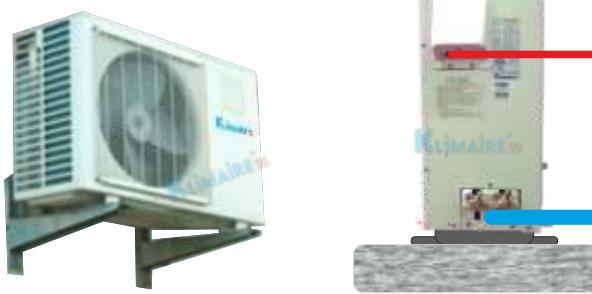


A Real Solution

Ductless mini-split systems are a real cost efficient, flexible, quiet and attractive solution to provide a smart, peaceful alternative to both window and central air conditioners, for locations where no duct is available, in residential, offices, or commercial buildings, new or existing, and additions. In addition to eliminating the need of ducting

In addition to eliminating the need for ducting, one of the other great advantages of ductless mini-split systems is true zone control. The indoor fan coil unit is dedicated to the room being conditioned allowing a temperature and humidity level to be kept different from the rest of the house or the building.

Installation



Outdoor Unit Wall Bracket

Concrete Slab

Ductless Mini-Split

Experience the true individual comfort.

Ductless mini-split systems are perfect solution to variety of installation challenges, allowing installers the ability to place Ductless mini-split units in locations that were previously impractical or impossible. They are ideal when additional ductwork is necessary but not cost effectively. Basically Ductless mini-split units eliminate the use of ductwork. Since they consist of two parts, the outdoor portion and the indoor portion similar to regular split units but smaller in size, they are known as Ductless mini-split systems. The two units are connected to each other by means of refrigerant and electrical lines together with condensate drainline through a hole 3 inch diameter or less.

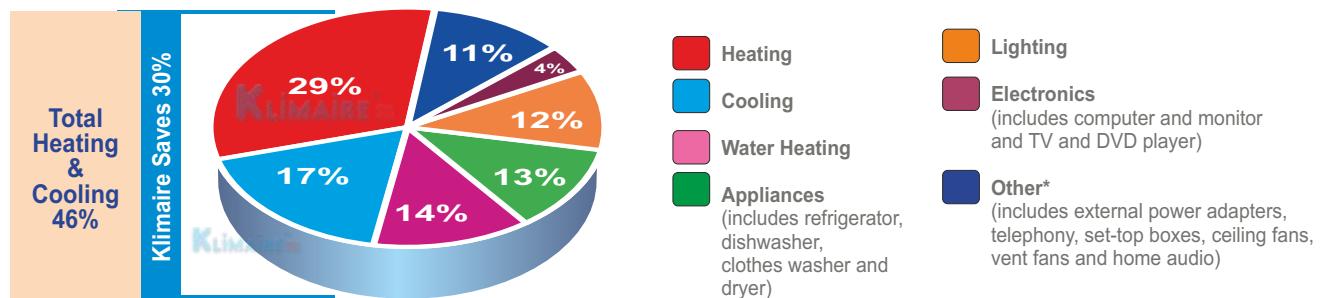


Like regular split air conditioning or heat pump systems, the condensing unit is installed outdoors allowing a peaceful and more comfortable interior environment.

Be the One... to make the Smart Choice

The US Department of Energy (DOE) says that as much as half of the energy used in your home goes to heating and cooling. So making smart decisions about your home's heating, ventilating, and air conditioning (HVAC) system can have a big effect on your utility bills and your comfort.

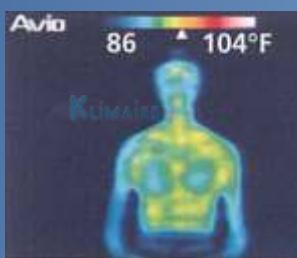
Klimaire  DC Inverter - driven ductless air conditioners and heat pumps can save you up to 33% in your power utility bill when compare with room air conditioners or standard efficiency 10 SEER ductless systems. Even up to 30% energy consumption savings can be achieved when ductless Invertech units are practical to install and preferred over traditional ducted central units. Total savings can reach up to 60% when the two options are combined.



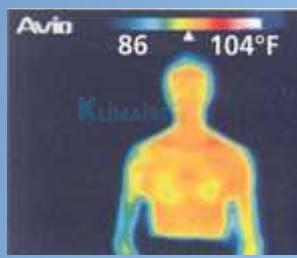
Inverter Technology:

DC Inverter is a type of power conversion circuit that electronically regulates the voltage, current and frequency of a compressor or a motor. DC INVERTER-driven air conditioners and heat pumps bear special double cam, twin rotary variable speed compressor. Like a cruise control of a vehicle. Inverter technology varies the compressor speed based on cooling and heating needs in the space. Variable speed enables to precisely match system capacity to actual load. They can slow down or speed up based on demand load. By varying the speed of the compressor systems are able to better match load in heating and cooling. Therefore systems operate more efficiently at light load, while still being capable of increasing the speed to deliver full capacity when needed.

Since Humidity is a major factor for comfort, in the summer, Klimaire DC INVERTER – driven variable speed compressors reduces capacity to match lighter loads increasing the run time to remove moisture and reduce relative humidity resulting in improved comfort. In the winter, by increasing the speed of the compressor Klimaire air conditioner and heat pump systems are able to maintain capacity and deliver hotter supply air even at low outdoor ambient conditions .



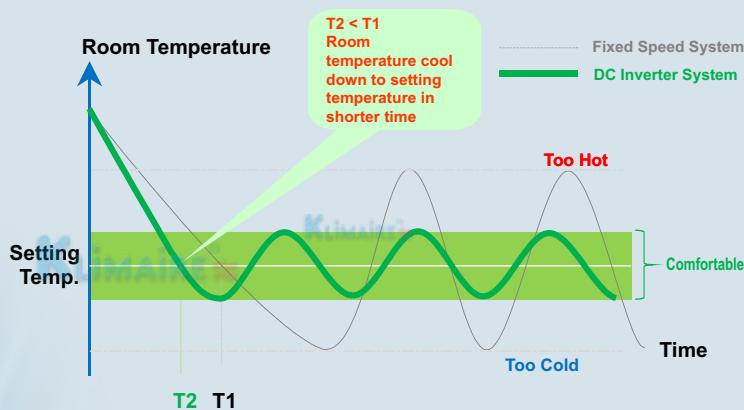
Room temperature 77°F
Humidity 50%
COMFORTABLE
Decreasing humidity while
maintaining the temperature
increases comfort



Room temperature 77°F
Humidity 80%
UNCOMFORTABLE
Hot and stuffy with high
humidity

Advanced Klimaire 180 Degrees Inverter Technology

Klimaire Invertech DC inverter -driven air conditioners and heat pumps are the ultimate cooling and heating technology of the HVAC field. Klimaire DC Inverter Technology adopts the new advanced 180 Sine Wave DC inverter Driven Technology and brushless DC (BLDC) motor (Variable Revolution) Twin cam compressor. This translates into more energy-savings and quieter operation than 120 Square- Wave DC inverter types. Result is more consistent temperature which translates into increased comfort and energy savings all year round.

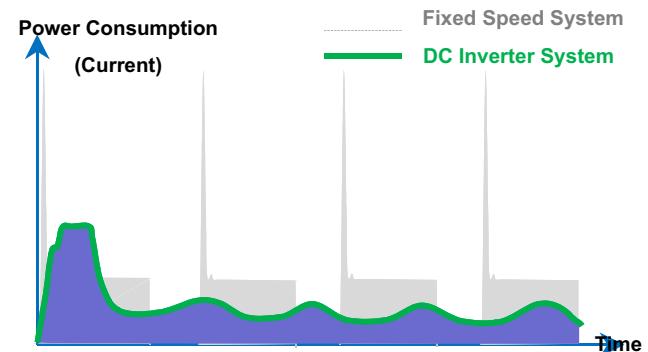


Savings and advantages are even much more when you compare with traditional systems. They run at fixed speed and cycle on/off to match the load. This will result compressor to draw tremendous energy each time when it starts up. On/off cycling also reduces the life-span of the compressor and other components that cycle on/off.

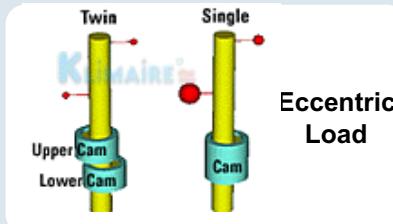
Inverter Benefits

DC Inverter 180 Sine Wave

- 1- Desired set temperature in half the time
- 2- More Efficient & higher savings up to 30%
- 3- Quieter operation & reduced vibration for longer life
- 4- Less indoor temperature fluctuations
- 5- Higher heating capacity at lower ambient conditions



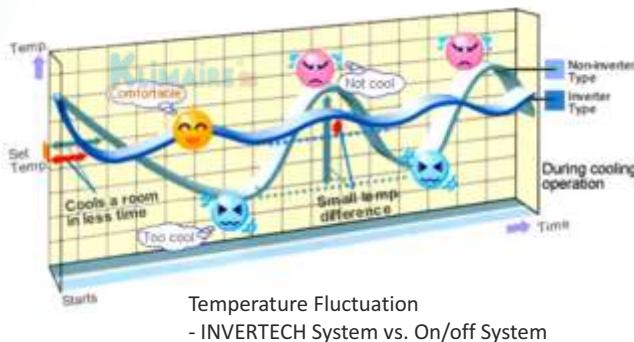
A high performance double cam twin rotary compressor increases the performance, reliability, and durability. Energy savings are much higher with this INVERTECH DC INVERTER - driven variable speed compressor.



The opposite double blade advanced design provides mechanical stability and less vibration that shall increase the life of compressor and other components in the outdoor unit.



Homeowners and neighbors enjoy quiet whisper breeze outdoor unit operation making sure nobody is disturbed.



The temperature fluctuations are much higher in traditional (on/off cycling) systems compared to invertech driven inverter systems, which effects human comfort. Real comfort does not only depend on temperature. Dehumidification process, especially during hot sticky weather is essential and integral part of cooling and inverter systems are the more efficient way to remove moisture and control humidity level.



Features:

- ◆ Anti cold draft - if the unit is turn on in heat mode when the ambient temperature is low. The unit will warm up prior to fan operation to prevent cold air in heating mode to make people feel more comfortable.
- ◆ Refrigerant Leakage Detection, monitors and prevents compressor damage or compressor overload caused by a refrigerant leakage.
- ◆ Integral design, the base pan and the air outlet assembly are in an integrated design for easy installation and maintenance.
- ◆ Quick-Hook Design - Indoor unit can be hung easier and faster on the mounting plate reducing installation time and easy service.
- ◆ Auto-restart. After a power cut the unit will restart automatically with the previous function setting when the power returns.

Optional Installation Accessories



Condensate Drain Mini-Pumps

Outdoor unit wall brackets

Installation Kits 16, 25 and 40 ft.

Applications are everywhere...

**Ductless Mini-splits have flexibility
to fit virtually any applications**

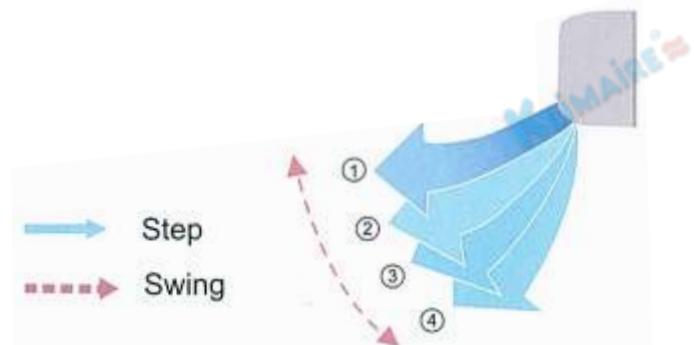


- Homes utilizes hydronic heat
- Remote Utility transfer stations
- Residential additions such as a Florida room, sun room, bed room or garage conversions
- Restaurants, Barber shops
- Computer rooms (different temperature/ humidity control is required)
- Historic homes
- Vacation homes or cabins

- ATMs and photo studios
- Remote offices such as inside a warehouse factory
- Class rooms, indoor nurseries
- Shopping malls
- Nursing homes, hospitals & church sanctuaries
- Arena sky boxes

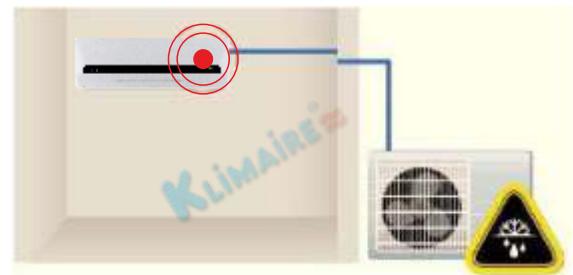
Auto swing louver

The auto swing Louver function ensures that the air direction corresponds to the mode selected



Refrigerant Leakage Detection

You can know when your unit is performing or not, it is like a monitor. It gives you the ability to check and be alert with the performance of your unit and prevent damages to the compressor which is the most vital part of the system.



Convenient for installation

Multi-refrigerant outlet pipe method: left/right/rear, more flexible for installation.



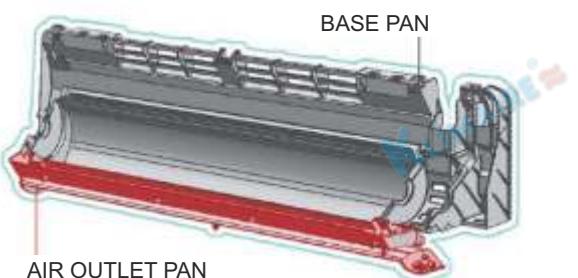
Easy maintenance

Easy maintenance has been realized as the front panel can be removed for easy access to washable filters



Integral Design

The base pan and air outlet pan assembly adopt an integral design for improved and silent air flow, as low as 29 dB



Remote Control



Swing - Distributes cool/warm air to a maximum area by moving flaps automatically.

Sleep - Enables the air conditioner to automatically increase (cooling) or decrease (heating) 1.8°F / hour for the first two hours, then keep it steady for the next 5 hours, after that will turn off. This function maintains both energy savings and comfort in night operation.

Air Direction - Due to density of cold and warm air is different, in cooling mode indoor unit blows air horizontally, while in

heating mode blows it vertically, to make room temperature more consistent and comfortable during the operation.

Timer - The timer can be set to start ON and stop OFF at any point in a 24 hour operation

Turbo - The air conditioner will maximize the output of cooling or heating operation, make the room cool down or heat up rapidly, and attain the desired temperature in the shortest time

TEMP - Sets the room temperature up or down 1°F at a time.

KSIN Series

COOLING ONLY

Klimaire Model No.		KSIN009-C115	KSIN012-C115	KSIN012-C215	KSIN018-C215	KSIN024-C215
Cooling Capacity	Btu/h	9000	12000	12000	18000	22000
Nominal EER	Btu/W	9	9	9	9	9
Performance SEER		15	15	15	15	15
Indoor air flow volume (Hi/Mi/Lo)	cfm	282/247/188	341/294/212	353/312/235	441/388/282	736/677/559
Indoor noise level (Hi/Mi/Lo)	dB(A)	39/35/29	39/35/29	39/35/31	42/39/31	49/45/39
Dehumidification	pint/h	2,3	2,75	2,75	4,1	5,5
Power input	V / ph / Hz	115 - 60	115 - 60	208-230 / 1 / 60	208-230 / 1 / 60	208-230 / 1 / 60
Power Supply	Minimum Circuit Ampacity	A	15	20	7,5	12
	Max. Overcurrent Protection	A	25	30	15	30
	Outdoor unit (W*D*H)	in	26x10.4x21.3	26x10.4x21.3	30.7x9.8x21.3	30x11.2x23.2
	Outdoor unit packing	in	31.1x14x24.4	31.1x14x24.4	35.8x13.2x23	34.9x14x25.4
Dimensions &	Outdoor unit Net / Gross weight	lb	62.7 / 69.3	64.9 / 71.5	61.6 / 66	75.9 / 81.4
Weight	Indoor unit (W*D*H)	in	26.77x7.01x10.04	30.31x7.40x10.04	30.31x7.40x10.04	35.63x7.80x10.83
	Indoor unit packing	in	29.33x10.04x12.99	32.87x10.43x12.99	32.87x10.43x12.99	38.19x10.63x13.58
	Indoor unit Net / Gross weight	lb	15.4 / 17.6	16.5 / 20.9	16.5 / 20.9	19.8 / 25.3
	Compressor	Brand	GMCC - TOSHIBA	GMCC - TOSHIBA	GMCC - TOSHIBA	GMCC - TOSHIBA
		Type	DC - Inverter Driven			
	Outdoor fan motor power	W	64/47	64/47	75/66	119/96
	Outdoor fan motor capacitor	uF	3	3	2.5 / 6.0	2,5
	Outdoor fan motor speed	rpm	860 / -- / 660	860 / -- / 660	940 / -- / 835	860 / -- / 680
	Outdoor noise level	dB(A)	54	55	55	59
	Indoor fan motor power	W	46	46	43	58,5
	Indoor fan motor	uF	3	3	1,5	1,5
	indoor fan motor speed (Hi/Me/Lo)	rpm	1200 / 1050 / 800	1200 / 1050 / 800	1200 / 1050 / 800	1250 / 1100 / 800
	Indoor air flow (Hi/Mi/Lo)	cfm	282/247/188	341/294/235	353/312/235	441/388/282
	Indoor noise level (Hi/Mi/Lo)	dB(A)	39/35/28	39/35/29	39/35/31	42/39/31
System	Refrigerant type	oz	R410A/31.8	R410A/31.8	R410A/22.93	R410A/29.9
	Design pressure	psig	550/340 psig	550/340 psig	550/340 psig	550/340 psig
	Pipe size Liquid/Gas	in	1/4" / 3/8"	1/4" / 1/2"	1/4" / 3/8"	1/4" / 1/2"
	Max. refrigerant line run	ft	65	65	65	82
	Max. elevation difference	ft	26,2	26,2	26,2	32,8
	Connection wiring	AWG	16# (Optional)	16# (Optional)	16# (Optional)	16# (Optional)
Indoors operation temperature (cooling / heating)	°F	≥63/----	≥63/----	≥63/----	≥63/----	≥63/----
Outdoors operation temperature (cooling / heating)	°F	32~122/----	32~122/----	32~122/----	32~122/----	32~122/----
Application area	sq. ft.	350-400	450-550	450-550	700-1000	900-1500
Refrigerant leakage detection		Yes	Yes	Yes	Yes	Yes
Base pan integral design		Yes	Yes	Yes	Yes	Yes
Features	Auto re-start		Yes	Yes	Yes	Yes
	Auto level swing		Yes	Yes	Yes	Yes
	Turbo mode		Yes	Yes	Yes	Yes
	LED display		Yes	Yes	Yes	Yes

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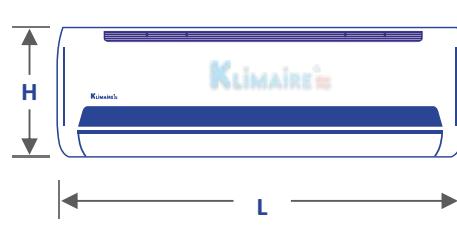
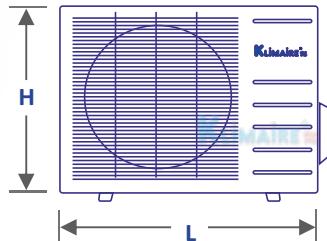
1 - Minimum 10 ft line set recommended.

2 - Outdoor unit being elevated than the indoor unit oil trap should be installed every 17 ft to 23 ft (5 to 7 m)

3 - Factory installed only, not field option

4 - Units may operate in heating mode when ambient conditions reach down to 5° F.

C12IN1302



KSIN Series HEAT PUMP

Klimaire Model No.		KSIN009-H115	KSIN009-H215	KSIN012-H115	KSIN012-H215	KSIN018-H215	KSIN024-H215
Capacity	Btu/h	9000	9000	12000	12000	18000	22000
Cooling	EER	9	9	9	9	9	9
	SEER	15	14,5	15	15	15	15
Heating	Capacity	Btu/h	9000	9000	12000	12000	18000
	HSPF		8,2	8,2	8,2	8,2	8,2
Power supply	V / ph / Hz	115 / 60	208-230V / 1 / 60Hz	115 / 60	208-230V~ 60Hz, 1Ph	208-230V~ 60Hz, 1Ph	208-230V~ 60Hz, 1Ph
Minimum Circuit Ampacity	A	19	7,5	20	7,5	12	15
Max. Fuse Size	A	30	15	30	15	20	25
Moisture Removal	pint/h	2,23	2,23	2,75	2,75	4,12	5,49
	Model		DA108X1C-23EZ	DA108X1C-23EZ	DA108X1C-23EZ	DA130M1C-31FZ	DA150S1C-20FZ
Compressor	Brand		GMCC	GMCC	GMCC	GMCC	GMCC
	Type		ROTARY	ROTARY	ROTARY	ROTARY	ROTARY
	Model		YDK24-6AS	YDK24-6KB	YDK24-6AS	YDK24-6GB	YDK49-6B
	Brand		Welling	Welling	Welling	Welling	Welling
Outdoor fan motor	Input	W	64/47		64/47	75/66	119/96
	Capacitor	uF	3	2.5 / 6.0	3	2.5 / 6.0	2,5
	Speed	r/min	860 / -- / 660	890 / -- / 770	860 / -- / 660	940 / -- / 835	860 / -- / 680
Outdoor air flow	cfm	824	971	824	1118	1354	1589
Outdoor noise level	dB(A)	56	56	55	57	59	60
	Model		RPG15A	RPG13B	RPG15A	RPG20B	RPG28H
	Brand		Welling	Welling	Welling	Welling	Broad-ocean
Indoor fan motor	Input	W	46	32,5	46	43	58,5
	Capacitor	uF	3	1,2	3	1,5	1,5
	Speed (Hi/Mi/Lo)	rpm	1200 / 1050 / 850	1100 / 900 / 800	1200 / 1050 / 800	1200 / 1050 / 800	1250 / 1100 / 800
Indoor air flow (Hi/Mi/Lo)	cfm	282/247/188	294/241/212	341/294/235	353/312/235	441/388/282	736/677/559
Indoor noise level (Hi/Mi/Lo)	dB(A)	39/35/29	38/31/29	39/35/29	39/35/31	42/39/31	49/45/39
	Dimension(W*D*H)	in	25.98x10.43x21.26	27.56x9.45x21.26	25.98x10.43x21.26	30.71x9.84x21.26	29.92x11.22x23.23
Outdoor unit	Packing (W*D*H)	in	31.10x13.98x24.41	32.09x12.80x22.83	31.10x13.98x24.41	35.83x13.19x23.03	34.92x13.98x25.39
	Net/Gross weight	lb	63.8 / 70.4	59.4 / 62.7	66 / 70.4	66 / 70.4	82.5 / 88
	Dimension(W*D*H)	in	26.77x7.01x10.04	26.77x7.01x10.04	30.31x7.40x10.04	30.31x7.40x10.04	35.63x7.80x10.83
Indoor unit	Packing (W*D*H)	in	29.33x10.04x12.99	29.33x10.04x12.99	32.87x10.43x12.99	32.87x10.43x12.99	38.19x10.63x13.58
	Net/Gross weight	lb	15.4 / 17.6	15.4 / 17.6	16.5 / 20.9	16.5 / 20.9	19.8 / 25.3
Refrigerant type		g	R410A/900g	R410A/680g	R410A/950g	R410A/910g	R410A/1200g
Refrigerant type		oz	R410A/31.8	R410A/23.99	R410A/33.57	R410A/32.1	R410A/42.3
Design pressure		psig	550/340 PSIG	550/340 PSIG	550/340 PSIG	550/340 PSIG	550/340 PSIG
	Liquid side/ Gas side	in	1/4" / 3/8"	1/4" / 3/8"	1/4" / 1/2"	1/4" / 3/8"	1/4" / 1/2"
Refrigerant pipe	Max. refrigerant pipe length	ft	65,6	65,6	65,6	65,6	82
	Max. difference in level	ft	26,24	26,24	26,24	26,24	32,8
Connection wiring			16# (Optional)	16# (Optional)	16# (Optional)	16# (Optional)	16# (Optional)
Operation temperature	Indoor(cooling/ heating)	°F	≥63/≤86	≥63/≤86	≥63/≤86	≥63/≤86	≥63/≤86
	Outdoor(cooling/heating)	°F	32~122/5~86	32~122/5~86	32~122/5~86	32~122/5~86	32~122/5~86
Operation temperature with low temperature cooling system	Indoor(cooling/ heating)	°F	≥63/≤86	≥63/≤86	≥63/≤86	≥63/≤86	≥63/≤86
	Outdoor(cooling/heating)	°F	5~122/5~86	5~122/5~86	5~122/5~86	5~122/5~86	5~122/5~86
Application area	sq. ft.		350-400	450-550	450-550	450-550	700-1000
							900-1500

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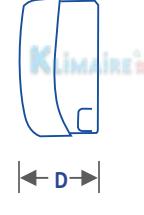
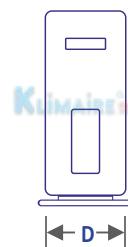
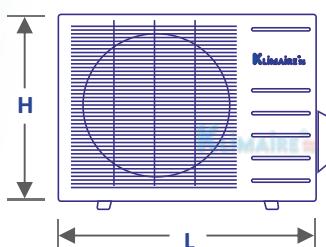
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C12IN1302



Ksin

DC INVERTER
TECHNOLOGY



5 Year
Warranty
on Compressor

1 Year
Warranty
on Parts

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