







## Ultimate Cooling & Heating Solution





11











# KSID



## What Klimaire brings you ...

We have been in the Ductless Mini-Split business for over 25 years and Klimaire maintains the highest quality and reliability with ISO 9001 and ISO 14001 standards in our manufacturing facilities. Our products have proven their endurance and resiliency over time, operating in 70 different countries. All products are ETL certified and AHRI registered.

Klimaire products exceed industry standards for energy efficiency and employs innovative technology to achieve the highest customer satisfaction. Since our goal is to achieve maximum customer satisfaction, we continuously seek to achieve higher performance levels in the design phase for all future units.

Ductless Mini-Split systems are one of the fastest growing products in the US and popularity is rapidly increasing. They allow air conditioning and heating systems to be added quickly, economically and conveniently, often for some applications where installing comfort systems didn't seem possible or practical.

Flexibility is the main driver of their popularity.

Klimaire ductless systems are simple, reliable, easy to install, and extremely affordable. Klimaire slim single zone and multi zone ductless systems offer built-in solution with duct free technology benefits.

These systems are integrated with innovative inverter technology providing individual comfort and control. With our KSID series we are committed to bring our valued customers additional savings with a unit almost ready to install, easily and quickly, with minimum HVAC technician assistance.





# How much do you spend for heating & cooling your home?

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 *Invertech* DC Inverter - driven ductless air conditioners and heat pumps can save you up to 33% in your power utility bill when compared 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 by eliminating duct losses. Total savings can reach up to 49% when the two options are combined.





Advanced Klimaire 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. KLIMAIRE DC INVERTER-driven air conditioners and heat pumps bear special double cam, twin rotary variable speed compressor providing highest efficiency & less vibration. Like a cruise control of a vehicle, inverter 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 better able to 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.

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 to 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.

## **Top Benefits**

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## **Product Highlights**



Klimaire Invertech DC inverter -driven air conditioners and heat pumps are the ultimate cooling and heating technology of the HVAC field.

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 will increase the life of compressor and other components in the outdoor unit.



Homeowners and neighbors enjoy quiet whisper breeze outdoor unit operation with less noise to surroundings.





## Unique Comfort in Cooling & Heating

Since humidity is a major factor for comfort, Klimaire DC INVERTER adjusts to summer and winter months – 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



## DC Inverter 180 Sine Wave

- 1- Wider frequency & voltage range
- 2- More Efficient & higher savings
- 3- Lower noise & reduced vibration for longer life
- 4- Improved reliable operation

Savings and advantages are even greater when you compare with traditional systems. They run at fixed speed and cycle on/off to match the load. This causes the compressor to draw tremendous energy each time it starts up.

On/off cycling also reduces the life-span of the compressor and other components that cycle on/off.





## **Optimum Comfort - Reduced Temperature Fluctuation**



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

## **Extremely Quiet**

Newly improved cross flow fan and low vibrating compressor with BLDC (brushless DC), variable revolution motor twin cam rotary compressor, results in quieter operation that provides more energy savings, and peace of mind to the user.







## Superior Savings in Heating



Heating an area with an electric heater for a long period of time is generally considered to be more expensive than using a HVAC heat pump. The cost of heating a space with it can be up to four times the cost of using a heat pump.

**Increased Fan Size** 

# Klimaire KSID 18.000 Btu Energy Output

A heat pump moves heat from the surrounding ambient air and transfers it to inside of the house in cold weather. It is preferable in most applications as it has lower electrical consumption, longer life expectancy, better heat transfer and heats more evenly, and consequently more efficient.



Newly improved cross flow fan size has been enlarged 40%

BLCD Motor Highly reliable, lower noise, longer lifetime

## Low vibration - High Durability



Klimaire heat pump rotary compressor reduced vibration for less noise,longer life and higher efficiency having the same capacity, as much larger units. Thus improved reliability operation as a result.

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## better speed



## INDOOR

## Quick Connect Refrigerant Tubing Installation

## **Ductless Mini-Split**

Experience true individual comfort. Ductless Mini-Split systems are the perfect solution to a variety of installation challenges. Ductless Mini-Split units eliminate the use of ductwork, allowing installers the ability to place these units in locations that were previously considered impractical or impossible due to additional ducting and cost associated with installing a regular unit. Ductless Mini-Splits consist of two parts, an outdoor unit and an indoor unit, similar to regular split units, but much smaller in size. The outdoor and indoor units are connected to each other by refrigerant and electrical lines. They run together with a condensate drain line through a small hole in an exterior wall, generally 3 inch in diameter or less. In addition to eliminating the need for ducting, another great advantage 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 in a specific room, separate from the rest of the house or building.













## Applications are everywhere...

## Ductless Mini-splits have flexibility to fit virtually any application

- 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



Smart Heating and Cooling It is highly recommendable to replace your inefficient old room air conditioner with quieter, high efficiency ductless mini split System



#### Condition the storage

Heating and cooling your garage helps to maintain low humidity prevents mildew and keep reasonable winter temperatures. Your stored goods are in perfect conditions for years.

#### Indoor Climate Changer

Indoor nurseries & plant growers can easily achieve the desired temperature and control humidity levels in different zones.



#### **Auxiliary Cooling**

When additional cooling is on demand, ductless mini split systems can be added quickly, conveniently and economically.



#### **EZ Supplemental Capacity**

In most cases it is impractical and inconvenient to utilize existing central system and duct work for your home addition projects. Klimaire Inverter units can be easily added as supplemental cooling and heating capacity for your home additions. Homeowners enjoy zone comfort control eliminating messy duct work installation, that may result in inefficient air distribution.



#### Individual Comfort and Temperature Control

Create your own true zone cooling & heating to achieve more precise individual comfort day and night in your home or business. Klimaire units zoning capability allows you to set each zone with different temperature settings as desired. You can even turn off the units in non-occupied rooms for additional energy savings, while keeping them at a higher temperature setting in cooling to control humidity levels – increasing personal comfort.







## Features & Benefits



#### Quick & Easy Installation DIY

With our quick connect installation kit it is very quick & easy to install your system and start enjoying the comfort your Klimaire unit brings to you.



#### IAQ - Indoor air quality

Eliminating old and dirty ductwork is extremely important for Indoor Air Quality inside our homes.



NEGATIVE ION GENERATOR For models KSID016, KSID022, KSID032

The negative ion generator emits negatively charged ions that help to remove dust and other pollutants from the air. After negatively charged ions and dust gather together, dust becomes heavier and sinks, and then it can be collected at the fan coil filter to achieve the purifying effect.



ACTIVE CARBON FILTER For all models

Highly porous charcoal filter surface attracts and removes certain odorous organic compounds by trapping them inside its tiny pores, rather than masking the offending odors.



SILVER ION FILTER For 12K

Anti-bacterial filter kills many types of bacteria, and control the growth of microbes such fungi, spores and many others types that can be harmful when breathed in. The filter works by destroying the cells inner elements and absorbs these elements to ensure that the bacteria won't pollute the air surrounding it, keeping healthy air for the people around.

With the optional filters, your room will feel cleaner, smoother & healthier.



The room temperature sensor built in the remote control is activated and replaces the one in the outdoor unit, and the air conditioner will regulate the room temperature based on the temperature around the remote control, just as if the air conditioner is following the user.

Pressing the "Follow me" button on the remote control activates this function, when this is activated, the remote control will send to the PCB a signal every three minutes. If the PCB doesn't receive a signal either for 7 minutes or by pressing the "Follow me" button again, the function will terminate.





## Refrigerant Leakage Detection

You can know when your unit is performing or not, it monitors and gives you the ability to check and be alerted about the performance of your unit; preventing damages to the compressor which is the most vital part of the system.



### Indoor unit Self-cleaning coil

8

By pressing the self-clean button on the remote control the indoor unit runs first for a while in fan only mode, then changes to low heat operation, and finally it runs again in fan only mode. This method it keeps the inside of the fan coil clean and dry prevent mold growth.

AIR OUTLET PAN









## **Comfort Features**

#### Turbo mode

To bring the room quickly to the desired temperature, the air conditioner maximizes the cooling or heating output capacity by operating the fan at very high speed to attain the set temperature in the shortest time.

#### Sleep mode

On this function, the unit automatically adjusts the temperature setting by 1.8 °F per hour for the first two hours, then holds it steady for the next 5 hours, then switches off for all-night comfort.

#### Auto re-start & memory function

if the power fails, no settings will be lost. When the power resumes, the air conditioner will restart with the previous function setting automatically, eliminating the need for re-programming.

#### Dry mode

The individual dehumidification mode efficiently helps to control humidity level when cooling may not be necessary.

#### Auto level swing

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

#### • Air direction

Since cold air and warm air density is different, in cooling mode the indoor unit blows air horizontally, while vertically in heating mode. This technology makes the room temperature more consistent and comfortable during operation.

#### Anti-cold air

(Heat pump only) When starting the heating operation, the fan speed is automatically regulated from the lowest level to the pre-set level according to the temperature rising of the evaporator. This function prevents cold air from blowing out at the beginning of the operation, avoiding discomfort to the user.

#### • Adjustable indoor fan control

Changes the fan speed to 3 different settings to accommodate user's needs. It also helps to control humidity level when cooling may not be necessary.



## Remote Control





#### **ON/OFF** Button

Operation starts when this button is pressed and stops when this button is pressed again.



#### **MODE Button**

Each time the button is pressed, the operation mode is selected in a sequence of following:

#### -> AUTO-> COOL-> DRY-> HEAT-> FAN ---

NOTE: Please do not select HEAT mode if the machine you purchased is cooling only type. Heat mode is not supported by 0 the cooling only appliance.

3

#### FAN Button Used to select the fan speed in four steps: r

AUTO- LOW - MED- HIGH- -

#### SLEEP Button

Active/Disable sleep function. It can maintain the most comfortable temperature and save energy. This function is available on COOL, HEAT or AUTO mode only. NOTE: While the unit is running under SLEEP mode, it would be cancelled if MODE, FAN SPEED or ON/OFF button is pressed.

#### TURBO Button

Active/Disable Turbo function. Turbo function enables the unit to reach the preset temperature at cooling or heating operation in the shortest time(if the indoor unit does not support this function, there is no corresponding operation happened when pressing this button.)



8

#### SELF CLEAN Button

Active/Disable Self Clean function. Under self clean mode, the air conditioner will automatically clean and dry the evaporator and keep it as fresh for the next operation.

#### UP Button (

Push this button to increase the indoor temperature setting in  $1^{\circ}$ F increments to  $86^{\circ}$ F. DOWN Button ( $\checkmark$ )

Push this button to decrease the indoor temperature setting in 1°F increments to 62°F.

NOTE: Press and hold and buttons together for 3 seconds will alternate the temperature display between the °C & °F scale.

#### SHORTCUT Button

Used to restore the current settings or resume previous settings. On the first time connecting to the power, if push the SHORTCUT button, the unit will operate on AUTO mode, 80°F, and fan, speed is Auto. • Push this button when remote controller is on, the system will automatically revert back to the previous settings including operating mode, setting temperature, fan speed level and sleep feature (if activated). And transmit the signals .to the unit.

• If push this button when remote controller is off, the system will only resume the previous settings and will not transmit the signals to the unit. And the sleep feature is disable.

 If pushing more than 2 seconds, the system will automatically restore the current operation settings including operating mode, setting temperature, fan speed level and sleep feature(if activated).

#### TIMER ON

Button Press this button to initiate the auto-on time sequence. Each press will increase the auto-timed setting in 30 minutes increments. When the setting time displays 10, each press will increase the auto-timed setting 60 minutes increments. To cancel the auto-timed program, simply adjust the auto-on time to 0.0.



9

#### TIMER OFF Button

Press this button to initiate the auto-off time sequence. Each press will increase the auto-timed setting in 30 minutes increments. When the setting time displays 10, each press will increase the auto-timed setting 60 minutes increments. To cancel the auto-timed program, simply adjust the auto-off time to 0.0

#### **DIRECT Button**

Used to change the louver movement and set 0 the desired up/down air flow direction. The louver changes 6° in angle for each press.

#### SWING Button



3

Used to stop or start horizontal louver auto swing feature.

#### FOLLOW ME Button

Push this button to initiate the Follow Me feature, the remote display is actual temperature at its location. The remote control will send this signal to the air conditioner every 3 minutes interval until press the Follow Me button again. The air conditioner will cancel the Follow Me feature automatically if it does not receive the signal during any 7 minutes interval.

#### LED Button



Disable/Active indoor screen Display. When pushing the button, the indoor screen display is cleared, press it again to light the display.









## **INDOOR UNIT**

- True zone temperature control to optimize personal comfort with follow me function.
- More efficient and energy saving by zone cooling and heating.
- Consistent comfort with evenly distributed air flow in heating or cooling modes with micro-processor temperature control.
- Direct cooling or heating without extensive duct losses for winter and summer.
- Excellent humidity control with dehumidification/dry mode.
- All-in-one heating, cooling, dehumidification, fan, turbo modes.
- Indoor Air Quality, (IAQ) enhanced with silver ion, actvated carbon filters & self cleaning function.
- Solves the thermal shock problem that occurs with conventional air conditioners at bed time.
- Refrigerant leakage detection.
- Provides heating down to 5° F ambient temperature.

#### 12 KBTU







16 KBTU



32 KBTU

## OUTDOOR UNIT

- Variable capacity with inverter technology to maximize comfort and minimize energy cost.
- True zone temperature control to optimize personal comfort.
- More efficient and energy saving by zone cooling and heating.
- Consistent comfort with evenly distributed air flow in heating or cooling modes with micro-processor temperature control.
- Direct cooling or heating without extensive duct losses for winter and summer.
- Excellent humidity control with dehumidification/dry mode.
- All-in-one heating, cooling, dehumidification, fan, turbo modes.
- E-Z Quick DIY pre-charged interconnecting kit for fast installation without vacuuming.
- Color coded interconnecting cable for fast connection
- Pre-charged with R-410 eco-friendly refrigerant gas.

22 KBTU



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## KSID - PRODUCT CODE:







Klimaire Model Number			KSID012-H115Q	KSID016-H215Q	KSID022-H215Q	KSID032-H215Q
Power supply		V / ph / Hz	115 / 1 / 60	208-230 / 1 / 60	208-230 / 1 / 60	208-230 / 1 / 60
	Capacity	Btu/h	12000	16500	21000	32000
	Frequency Range	Hz	32 - 76	29 - 87	30 - 87	30 - 87
	Inverter Capacity Range	Btu/h	6390-14870	7975-21200	10800-30900	15835-43400
Cooling	Input	W	1400	1940	2460	4000
	Rated current	А	12,4	8,6	11,1	17,8
	SEER	Btu/w	15	14	14,5	14
	Capacity	Btu/h	11500	18000	21000	33000
	Frequency Range	Hz	32 - 76	29 - 87	30 - 87	30 - 87
	Inverter Capacity Range	Btu/h	6130-14460	8700-26100	10500-30450	16500-47850
	Input	W	1340	1700	2210	3470
	Rated current	А	11,9	7,6	10	15,5
	HSPF	Btu/w	8.2	8.2	8.2	8.2
Minimum Circuit A	mpacity	A	16	12	15	20
Max. Fuase Size		А	25	20	25	30
Moisture Removal		oz/h	40.6	54.1	74.4	115
Compressor	Туре		Rotary	Rotary	Twin-rotary	Twin-rotary
	Capacity	Btu/h	11021	13443	15286	33711
	Input	W	855	1005	1150	3010
	Rated current (RLA)	A	5.5	6.87	6.87	13.5
	Refrigerant oil / oil charge	OZ	ESTER OIL VG74 / 16.2	ESTER OIL VG74 / 16.2	ESTER OIL VG74 / 16.9	EV50S / 36.2
Indoor fan motor	Input	W	46	58.5	80.5	113/87/68
	RLA	A	0.4	0.28	0.38	0.78
	IRA	A	0.54	0.356	0.56	0.8
	Winding Resistance		75/150	183 6/206	118 5/78 5	81/75 5
	Capacitor	uF	3	1.5	3	3
	Speed (Hi/Mi/Lo)	rom	1200 / 1050 / 800	1250 / 1100 / 800	1200 / 1100 / 900	1260 / 1090 / 950
Indoor air flow (Hi/Mi/Lo)		cfm	350/310/240	480/420/310	680/620/510	940/810/710
Indoor noise level (Hi/Mi/Lo)		dB(A)	40/36/29	44/41/31	48/45/37	50/46/44
Indoor unit	Dimension (W*D*H)	in	30.31x7.40x10.04	35.63x7.80x10.83	40.55x8.58x12.40	56.89x10.91x13.39
	Packing (W*D*H)	in	32.87x10.43x12.99	38.19x10.63x13.58	43.90x15.55x11.81	60.24x16.54x14.37
	Net / Gross weight	lb	16.53/20.94	19.84/25.35	26.46/33.07	52.91/70.55
Outdoor fan motor	Input	W	64/47	119/96	136/130	299/223
	RLA	A	0.7	0.55	0.6	1.36
	LRA	A	0.81	0.8	0.9	2
	Winding Resistance		50/177	84.5/137	88.5/138	24.5/19
	Capacitor	uF	3	2.5	2.5	10
	Speed	rpm	860 / / 660	860 / / 680	930 / / 830	750 / / 615
Outdoor air flow	•	cfm	820	1290	1590	2240
Outdoor noise leve	2	dB(A)	55	59	61	61
Outdoor unit	Dimension (W*D*H)	in	26.0x10.4x21.3	29.9x11.2x23.2	33.3x12.6x27.6	39.0x13.6x38.0
	Packing (W*D*H)	in	31.1x14.0x24.4	34.9x14.0x25.4	38.0x15.6x29.7	44.1x17.1x43.3
	Net/Gross weight	lb	66.1/70.6	82.7/88.2	103.6/111.3	167.6/191.8
Refrigerant type / charge		OZ	R410A / 33.6	R410A / 42.3	R410A / 56.5	R410A / 107.8
Refrigerant precharge		ft	16	16	16	16
Design pressure		psia	550 / 340	550 / 340	550 / 340	550 / 340
Refrigerant piping Liquid side x Gas side		in	1/4" x 1/2"	1/4" x 1/2"	3/8" x 5/8"	3/8" x 5/8"
Connection wiring			16AWG*4 Stranded. unshielded	16AWG*4 Stranded, unshielded	16AWG*4 Stranded. unshielded	16AWG*4 Stranded, unshielded
Thermostat type			Remote Control	Remote Control	Remote Control	Remote Control
Operation	Indoor (cooling/ heating)	°F	62 ~ 90/32 ~ 86	62 ~ 90/32 ~ 86	62 ~ 90/32 ~ 86	62 ~ 90/32 ~ 86
Temperature	Outdoor (cooling/heating)	٥E	32 ~ 122/5 ~ 86	32 ~ 122/5 ~ 86	32 ~ 122/5 ~ 86	32 ~ 122/5 ~ 86
Application area	cataoor (cooning/ricating)	sa ft	180-315	260-434	331-552	505-841

Application area



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Klimaire 🕿

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