

**Ductless Split Comfort Systems** 

NEW RESIDENTIAL LINE • ENERGY SAVINGS

- ADVANCED TECHNOLOGY
- ECO-FRIENDLY





















# What Klimaire brings you ...

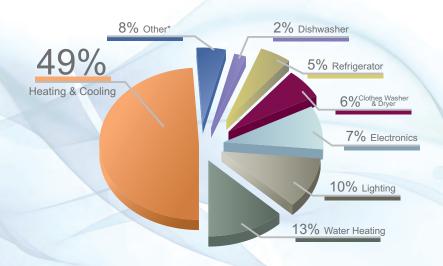
We have been in the Ductless Mini-Split business for over 25 years, Klimaire manufacturing maintains the highest standards of quality and reliability with ISO 9001 and ISO 14001a. Our products have proven their endurance and resiliency over time, operating in 70 different countries. All products are ETL certified and AHRI registered. Klimaire products exceed industry standards for energy efficiency and employ 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 solutions with duct free technology benefits. These systems are integrated with innovative inverter technology providing individual comfort and control. With our KSIE 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% on your power utility bill when compared with room air conditioners or standard efficiency ductless systems. Ductless Invertech units are practical to install and preferred over traditional ducted central units.

Total savings can reach up to 49% when heat pump technology is combined with an inverter system.





# What is Klimaire DC Inverter?



Klimaire DC Inverter Air Conditioners are the ultimate cooling and heating technology of the HVAC field. They are called "DC inverter" because the alternative current (AC) is converted to Direct Current (DC) then, direct current inverted back to Alternative current with desired frequency. As known, the current supplied through the wall outlet has fixed frequency which is 60 Hertz. Different frequencies supplied to the compressor will result different running speeds of the compressor.

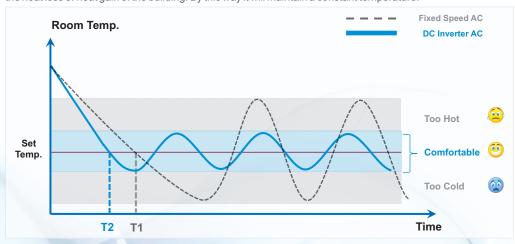
Klimaire Inverter control systems use Pulse Amplitude Modulation (PAM) that is the most advanced and energy efficient method of inverting the current.

DC Inverter air conditioners bear special compressors that their speed could be changed by increasing or decreasing the frequency of the supplied power.

Therefore, unlike conventional split Air Contioners/Heat Pumps which cycle between on and off repeatedly, the DC Inverter control system will monitor the room temperature and adjust the compressor speed automatically. Conventional compressors turn on and off to maintain the room temperature at desired level. This will result compressor to draw tremendous energy each time it starts up. This will also reduce the life-span of the compressor and other components that are turning on and off.

Once a conventional system is running, it runs at its maximum speed, consuming the maximum amount of energy in order to produce the maximum of cooling or heating to maintain the desired temperature. The system will then cycle between on and off in an effort to maintain this temperature.

When a DC Inverter compressor initially starts up, it runs with a higher speed to bring the room temperature to desired level rapidly, Once the set temperature is reached, it slows down and adjust its capacity just to counter the heat loss or heat gain of the building. By this way it will maintain a constant temperature.



# The higher the efficiency, the higher your savings

You'll save energy everytime you use a Klimaire Ductless System. Air ducts from a central forced air system can lose energy, with air leakage specially if the ducts run through unconditioned areas like attics or basements.

Since Klimair Ductless Systems have no ducts, they avoid that energy loss completely, reducing your impact on the environment and lowering your energy costs.

System efficiency is measured in SEER, with stands for Seasonal Energy Efficiency Ratio.

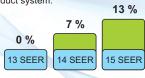
Similar to miles per gallon in a car, SEER measures te overall efficiency of a heating and cooling system on a seasonal basis. The higher the SEER, the greater the system's energy efficiency.

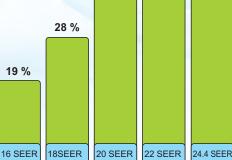
41 %

With SEER ratings for Klimaire Ductless Indoor Units ranging from 14 to 24.4, our ductless systems are remarkably efficient and environmentally friendly.

Annual savings for cooling your home based on the efficiency of a matched system

Minimum efficiency established by the Department of Energy, Potenial energy savings may vary depending on your personal lifestyle, system settings and usage, equipment maintenance, local climate, actual construction and installation of equipment and duct system.





35 %

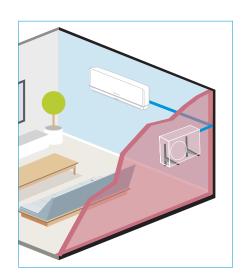


47 %



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.

# **Ductless Mini-split** Personalized Comfort Solution



### Accessories



Condensate Drain Mini-Pumps



Outdoor unit wall brackets



16, 25, 35, 50 ft.



AQS-0066-11 Aqua Over-Flow Switch



# Interactive display

When I show these codes on the display, that means ...



√ I'm defrosting.



√ I'm dirty, please clean my filters up.



My filters are too old, please change new

When you press any function button

### Turbo



That means you switch "Turbo Mode" on



That means you switch "Turbo Mode" off







# Easy Maintenance

# **Easy Maintenance**

Self-Diagnosis & auto Protection

Universal PCB design

For 115v one after-service PCB For 230v one after-service PCB



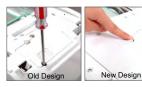
# **Easy Access**

•Louvers structure special design, easy to disassemble •Push the button slightly, easy to clean



# Service Friendly

- \* Emergency Function Using
- · Manual Switch Button
- ✓ Easy to turn on/off without a tool.
- Emergency Using Function
- ✓ Smartly detecting errors, your unit keep running when in urgent need



# **Leakage Detection**

- \* Refrigerant Leakage Detection
- \* You will be alerted when refrigerant is low.
- \* Preventes damage to the compressor
- \* Automatically turns off the unit



# Easy Installation

Thicker and wider plate makes the installation solid and safe.



# Easy to mount & connect



Installation gap for pipe connection > 4 in.
It is easier to connect the pipes.



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





Super Quiet

- Low Noise Design
- Optimize air discharge vane

Silent Mode

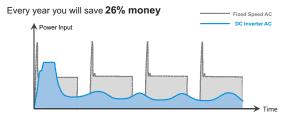
Max Decrease 3.5dB(A)

Indoor fan run at an extra breeze



Energy Savings

Inverter Saving





Example: Unit of 12000Btu/h (cooling capacity)

	Fixed Speed	Inverter
SEER	13	21
Cooling cost	\$114	\$73
Heating costs	\$258	\$202
Total	\$372	\$275

According to AHRI , refer <a href="https://www.ahridirectory.org">https://www.ahridirectory.org</a> for detail

# Indoor Air Quality



tion Low Fan





Operation







Time (minute)







Your Klimaire KSIE series equiped with Auto Clean Function. It cleans and dries the evaporator to prevent mildew grow

and keep it fresh for next operation.





# Wi-Fi Capability (Optional)

Control Your Klimaire® Mini-Split From Anywhere

### How does it work?





### iOS or Android APP

The mini-splits are controlled from a webpage or using an iOS or Android APP in a very intuitive way.



### Smart Kit (Wi-Fi)

An optional Smart Kit (Wi-Fi) device installed in each unit controls the operation.



### Cloud Managed

A Server in the cloud manages the whole process.

### Wi Fi Control Features



### Optional Smart Kit

To have remote access to control your Klimaire unit, optional smart kit should be installed.



### Turn on/off mini-split

Turn your A/C on/off as you wish



### **Change Program Settings**

Change the program settings, such fan speed, temperature, and operation mode



### Temperature Home

Monitor current room temperature, set timer on/off activate frost protection and sleep timer.



### Check AC

Check AC running status and display detailed information



### Program Calendar

Program the mini-split with a calendar scheduler in an easy, intuitive way.



### Save Money

Save money without losing comfort.

Remotely managed

Remotely manage your mini-split system using a simple smartphone, tablet or PC via the Internet.

Your Klimaire Wi-Fi enabled air conditioner lets you control your ductless mini split air conditioner using your smartphone or tablet from anywhere internet connection is available. Our free IOS and Android smartphone app gives you the freedom to instantly adjust your settings saving you time and money on energy consumption and cost.







iOS and Android APPS

75° @ @ ...





# Service Friendly

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- Manual Switch Button
- ✓ Easy to turn on/off without a tool.
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- ✓ Smartly detecting errors, your unit keep running when in urgent need









# Remote Control



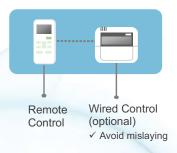
### I- Remote Control Parameter change

### ✓ Set your preferred settings

		Adjustment			
1	Auto Restart Function	Active / Shut off			
2	Temp. Compensation	Set value from 0? to 6?			
3	Lock Function	Lock / Unlock			
4	Anti-cold Air Function	Intelligent mode/ Common mode			
5	Indoor Fan Speed When Set Temp. is Achieved	Indoor fan stop / Indoor fan speed down / Indoor fan speed remain			
11	Lowest set point	From 62F to 76 F			
12	Highest set point	From 78F to 88F			

### Multiple Control Options

### 2 control ways are optional.



# Leakage Detection

### \* Refrigerant Leakage Detection

- \* You will be alerted when refrigerant es low.
- \* Preventes damage to the compressor
- \* Automatically turns off the unit



### Easy Installation



Installation gap for pipe connection > 4 in.
Normally about 3 in. It is more easy to connect the pipe.



Installation position from right to left, more than 2 in. Installer do not need to finding the mounted plate.

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







# Remote Control

### **ON/OFF** Button

This button turns the air conditioner ON and OFF.

### **0** MODE Button

Press this button to modify the air conditioner mode 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 the cooling

### **§** FAN Button

Used to select the fan speed in four steps:

→ AUTO→ LOW→ MED→ HIGH ¬

**NOTE:** You can not switch the fan speed in AUTO or DRY mode.

### **O** 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
- For the detail, see "sleep operation" in "USER'S MANUAL"

**NOTE:** While the unit is running under SLEEP mode, it would be cancelled if MODE, FAN SPEED or ON/OFF button is pressed.

### **6** 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.)

### **6 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.

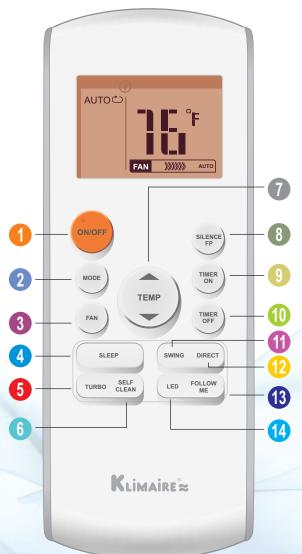
### O UP Button ( )

Push this button to increase the indoor temperature setting in 1F increments to 86°F.

### DOWN Button ( )

Push this button to decrease the indoor temperature setting in 1F increments to 62°F. **NOTE**: Temperature contol is not available

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



### SILENCE/FP Button

- Active/Disable SILENCE function. If pushing more than 2 seconds, the "FP" function will be activated, pushing more than 2 seconds again to disable.
- When the Silence function is activated, the compressor will operate at low frequency and the indoor unit will bring faint breeze, which will reduce the noise to the lowest level and creat a quiet and comfortable room for you. Due to low frequency operation of compressor, it may result in insufficient
- cooling and heating capacity.

   Activates/Disables freeze protection"FP" or HOME-AWAY function. It can only be activated during the heating operation.
  (only when the setting mode is HEAT).
  The unit will operate at high fan speed with the temperature automatically set to 46 F. The display window of indoor unit will display FP. For the unit without display area, the Defrost indicator light will be keeping on for 2 seconds Keeps the room over freezing temperature.

### **O 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 10.0, each press will increase the autotimed setting 60 minutes increments. To cancel the auto-timed program, simply adjust the auto-on time to 0.0.

### **1 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 10.0, each press will increase the auto-timed setting 60 minutes increments. To cancel the autotimed program, simply adjust the auto-off time to  $0.0\,$ 

### **SWING Button**

Used to stop or start horizontal louver auto swing feature.

### DIRECT Button

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

### **®** 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.







### Standard **Features**



Auto Restart Function



12 Grades Indoor Fan Speeds



Turbo Mode



Sel Clean Operation



Follow Me



Self-diagnosis and Auto-protection



**Auto Defrosting** 



**Emergency Using** Function



Refrigerant Leakage Detect



Low Ambient Cooling \* \*



Anti-cold Air Function



Louver Position Memory Function



Manual Switch Button



Fire-proof Electric Box



Auto Swing



Two-directional Airflow



Timer



High Density Filter



\*\* Except for 9K 24k non-estar models.

# Reliability



Base Pan Heater

Prevents defrost condensation from freazing ensuring proper defrost drainage during heating season

### Compressor Heater



**Ensures Compressor** longevity and reliability

**TwinCam** 



A high performance double cam twin rotary compressor increases the performance, reliability and durability

# **KSIE** Product Code

# 012

**Brand** K: Klimaire

> Model S: System

**Unit Type** I: Inverter

**Nominal Capacity** 09: 9,000 Btu/h

Series

12: 12,000 Btu/h 18: 18,000 Btu/h 24: 24,000 Btu/h

Efficiency SEER

**Unit Type** O: Outdoor I: Indoor

Minor Design Change

W: WiFi Enabled

**Product** 

**Power Supply** 1:115/60 2:208-230/1/60

**Operational Information** H: Heat Pump



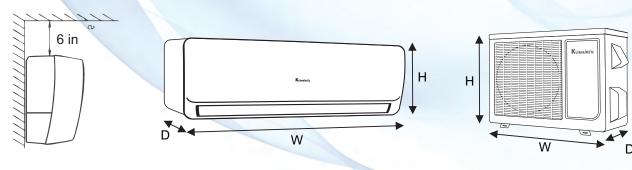


# 20-23 SEER

Klimaire Model Nu	mber - Indoor		KSIE009-H121-IW-2	KSIE012-H120-IW-2	KSIE009-H221-IW-2	KSIE012-H220-IW-2	KSIE018-H220-IW-2	KSIE024-H220-IW-2
Klimaire Model Nu	mber - Outdoor		KSIE009-H121-O-2	KSIE012-H120-O-2	KSIE009-H221-O-2	KSIE012-H220-O-2	KSIE018-H220-O-2	KSIE024-H220-O-2
Power supply		V-ph-Hz	115 / 1 / 60	115 / 1 / 60	208-230 / 1 / 60	208-230 / 1 / 60	208-230 / 1 / 60	208-230 / 1 / 60
	Capacity	Btu/h	9000	12000	9000	12000	18000	24000
	Power Input	W	665	960	640	923	1384	1920
	Rated current	Α	5,80	8,40	2,9	4,1	6,1	8,4
Cooling	EER	Btu/w	13,5	12,5	14	13	13	12,5
	SEER	Btu/w	22,5	21,5	22,8	21,5	20,8	20,5
	EER2 <sup>3</sup>	Btu/w	14	12,5	14	12,5	13,5	12,5
	SEER2 <sup>3</sup>	Btu/w	24	22,7	24	23,1	23,7	21
	Capacity	Btu/h	9800	11800	9800	12000	18000	25000
	Power Input	W	790	1120	930	1085	1570	2315
Heating	Rated current	Α	6,90	9,80	4,20	4,72	6,82	10,1
	COP	W/W	3,6	3,1	3,1	3,2	3,4	3,2
	HSPF	Btu/w	10,5	11,2	10,5	9,8	10	10
	HSPF2 <sup>3</sup>	Btu/w	9,6	10	11,4	9,3	10,3	8,9
Minimum Circuit am		A	15	15	15	15	15	15
Maximum Fuse Size	9	А	15	20	15	15	20	25
Compressor	Туре		ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY
	Capacity	Btu/h	10014	11157	10014	11157	13836	24344
	Power Input	W	748	800	748	800	1035	1970
Indoo fan motor	Power Input	W	20(Output)	20(Output)	20(Output)	20(Output)	58(Output)	120(Output)
Indoor air flow (Hi/N		cfm	294/212/147	306/212/147	265/205/141	306/212/147	559/365/306	618/471/324
Indoor noise level (H		dB(A)	37.5/-/23	36/32/23	39/-/24.5	39/-/25	45.5/-/34.5	50/-/35.5
	Dimension(W*D*H)	in	31.57x7.44x11.69	31.57x7.44x11.69	31.57x7.44x11.69	31.57x7.44x11.69	42.52x8.90x13.19	42.52x8.90x13.19
Indoor unit	Packing (W*D*H)	in	34.45x11.22x14.76	34.45x11.22x14.76	34.45x11.22x14.76	34.45x11.22x14.76	45.47x16.34x12.40	45.47x16.34x12.40
	Net/Gross weight	lb	18.1/22.0	18.1/22.0	18.1/22.0	18.1/22.0	29.1/37.0	29.1/37.0
Outdoor fan motor	Power Input	W	40(Output)	40(Output)	40(Output)	40(Output)	50(Output)	120(Output)
Outdoor air flow	rower input	cfm	1060	1120	1060	1120	1470	2355
Outdoor noise level		dB(A)	52.5	52.5	55.5	57,5	61	61
- Cutador Holde level	Dimension(W*D*H)	in	30.31x11.81x21.85	31.50x13.11x21.81	30.31x11.81x21.85	31.50x13.11x21.81	33.27x14.29x27.64	40.55x16.54x31.89
Outdoor unit	Packing (W*D*H)	in	35.43x13.58x23.03	36.22x15.35x24.21	35.43x13.58x23.03	36.22x15.35x24.21	38.00x15.55x29.72	42.91x19.69x34.06
	Net/Gross weight	lb	63.9/69.4	81.6/88.2	63.9/69.4	81.6/88.2	101.0/108.2	136.69/147.27
Refrigerant type	Net/Gloss weight		R410A/1000g	R410A1151g	R410A/1000g	R410A1151g	R410A/1950g	R410A/2350g
Refrigerant type / ch	narrae	g oz	R410A/38.8	R410A/40.6	R410A/38.8	R410A/40.6	R410A/68.8	R410A/82.9
Refrigerant precharg		ft	25	25	25	25	25	25
Additional charge pe		0Z	0,161	0,161	0,161	0,161	0,161	0,322
Design pressure	or odori it	psig	550/340 PSIG	550/340 PSIG	550/340 PSIG	550/340 PSIG	550/340 PSIG	550/340 PSIG
Refrigerant piping	Liquid side/ Gas side	in	1/4" / 3/8"	1/4" / 1/2"	1/4" / 3/8"	1/4" / 1/2"	1/4" / 1/2"	3/8" / 5/8"
	Max. refrigerant pipe length	ft	82	82	82	82	98	164
	Max. difference in level	ft	33	33	33	33	66	82
Connection wiring	wax. dilicicile ili level	AWG	16*4 Stranded, unshielded					
Thermostat type		AVVG	Remote Control					
	or(cooling/ hosting)	°F	62~90/32~86	62~90/32~86	62~90/32~86	62~90/32~86	62~90/32~86	
	or(cooling/ heating) loor(cooling/heating)-optional	°F	5~122/5~86	5~122/5~86	5~122/5~86	5~122/5~86	5~122/5~86	62 <b>~90/32~86</b> 5~122/5~86
Application area (co	boling standard)	sq.ft	350-400	450-550	350-400	450-550	700-1000	900-1500

Continued product improvement is our goal at Klimaire Products, Inc. Hence, specifications and data listed herein are subject to change without notice and without obligation on our part. Always comply with local, state, and national electrical codes.

- 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 EER2, SEER2, HSPF2 Values as per the new energy efficiency regulations starting on January 1, 2023



















Note: The data in this brochure may be changed without notice for further improvement on quality and performance



KLIMAIRE 

Mark of Superior Quality