

ATMOSPHERA

Single Zone Heat Pump System

UP TO 27.4 SEER2
UP TO 13.8 HSPF2
UP TO 16.3 EER2



Today, the air is perfect.

Perfect temperature. Perfect humidity. Perfectly clean and fresh, like just after a rainstorm. And the only thing more perfect than this outdoor scenario is that it's all happening inside. Because that's where we work. That's where we play, where we sleep, where we truly live.

And that's why Daikin aims to make the air inside as refreshing as the outside. Better comfort. Better control and efficiency. Better quality. So you can create your own unique ecosystem. And every day is perfect. Inside and out.

Perfecting the air we share

A better understanding of how people inhabit their living spaces has led to products designed to create indoor environments that help use energy resources more effectively. Heat pumps extract or reject heat from the outside air, even in cold weather. They use an electrically powered compressor and are extremely effective at heating and cooling a house. Daikin heat pumps are quiet and discreet, and use state-of-the-art technology to keep your energy bills low. With a Daikin heat pump, a large portion of the energy used to heat or cool your home comes from the outside air, a free and infinitely renewable resource.

ABOUT DAIKIN

Daikin Industries, Ltd. (DIL) is a global Fortune 1000 company which celebrated its 95th anniversary in May 2019. The company is recognised as one of the largest HVAC (Heating, Ventilation, Air Conditioning) manufacturers in the world. Daikin is primarily engaged in developing indoor comfort systems and refrigeration products for residential, commercial and industrial applications. Its consistent success is derived, in part, from a focus on innovative, energy efficient and premium quality indoor climate and comfort management solutions.

Premium comfort features:

1. Energy Efficient. Up to 27.4 SEER2 / Up to 13.8 HSPF2 / Up to 16.3 EER2 for ultra-efficient cooling and heating operation and reduced operating costs compared to conventional lower-efficiency systems.

2. Enhanced Capacity. Up to 100% rated heating capacity at 5°F WB (-15°C WB) and confirmed continuous operation as low as -13°F WB (-25°C WB) ambient temperature. Up to 100% rated cooling capacity at 115°F (46°C).

IDEAL SOLUTION FOR:

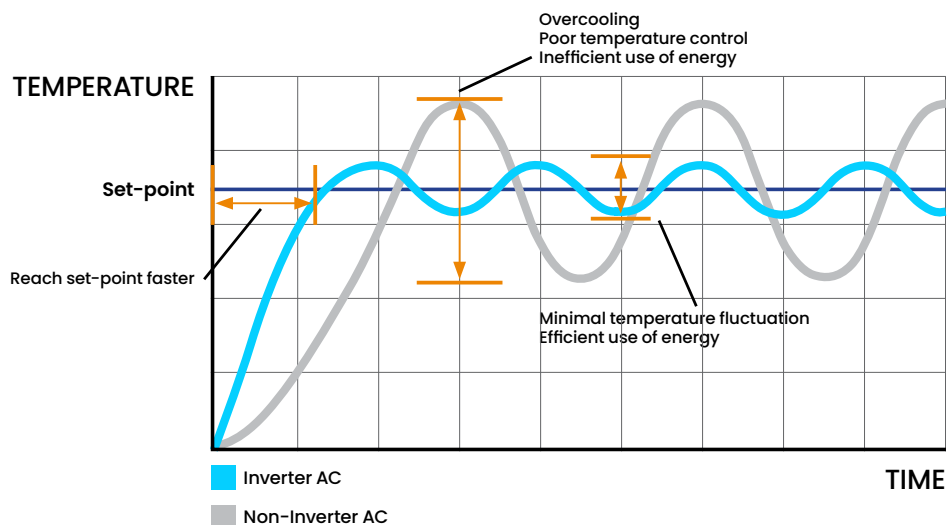
- Primary living areas
- Hot or cold rooms
- Rooms with poor air flow

Comfort

We offer a wide range of Daikin products for an apartment, condo or a house. Daikin units are whisper quiet and, with their specially designed airflow pattern, they create your ideal indoor climate.

Daikin units are designed to include features that let you create your own unique ecosystem. From the wide angle louver design to the auto-swing and comfortable mode controller settings, effective heating and cooling is ensured throughout the space.

The Daikin ATMOSPHERA system is an Inverter unit which runs continuously but adjusts the compressor's speed to meet the demand. Because it maintains the temperature consistently, your home will no longer feel too hot or too cold.



This is a visual depiction of the operation of a Non-Inverter AC system compared to an Inverter AC system.

Smart inverter technology

Integrated with a variable-speed inverter compressor, Daikin systems deliver the capacity required to maintain desired room conditions, typically reducing energy consumption by up to 30% or more (compared to traditional fixed-speed ducted systems). This technology minimises temperature fluctuations and provides continuous cooling and heating comfort.

Energy efficiency

Daikin products are designed to be highly efficient all year round, and their low energy consumption is reflected in low energy bills for you.

Control

Daikin expertise makes life easier for you, allowing you to control your system via a smartphone app or a user-friendly remote control.

Individual comfort and control

Daikin systems have an available infrared remote controller allowing you to access all functions at the click of a button. From anywhere in the world or your living room.

It can happen to anyone. You forgot to change the temperature of your Daikin ATMOSPHERA heat pump system before leaving the house, or you will be delayed returning home and wish to avoid needlessly heating or cooling your home. What in the past would have resulted in wasted energy is no longer a problem. With the Daikin Comfort Control App, you are always in control. You can use your tablet or smartphone to access your Daikin system via the internet.

Daikin One+ smart thermostat

The Daikin One+ smart thermostat is available for Daikin ATMOSPHERA. With the translation adaptor, connecting the Daikin One+ smart thermostat provides several user features including remote monitoring, control and geofencing using the Daikin One home app, Google and Amazon voice assistants.*

Daikin DKN Plus interface

The new Daikin DKN Plus interface (AZAI6WSPDKC) enables the energy-efficient control of Daikin air conditioners by a third-party thermostat or an automation system. With this interface, third-party devices or systems can control the Daikin ATMOSPHERA indoor unit through the DKN NA app, Cloud API, Modbus®, BACnet™ MS/TP or thermostat relay contacts. This interface can be commissioned easily through the DKN Cloud NA app via Bluetooth® Low Energy (BLE).

Reliability

Daikin products are renowned for their reliability and you can rely on service to match, with industry leading warranties.**

* Note that the handheld remote that comes with the indoor unit should not be used together with the Daikin One+ smart thermostat.

** For complete warranty details, enquire with AIRCARE.

R32 Refrigerant

Proven. Easy. Efficient. Available.
The Right Choice to Replace R-410A.

The first R-32 single zone ductless unit in North America

Daikin is leading the industry with the switch to the next generation of refrigerants that have a lower Global Warming Potential (GWP) than R-410A: R-32.

R-32 is the A2L refrigerant that's widely used around the world today. With over 160 million R-32 units made by over 40 manufacturers and installed in more than 90 countries, R-32 is the easy choice and the proven global standard.

In addition, R-32 is the only pure, single-component refrigerant slated to replace the high GWP refrigerant, R-410A. Unlike blended refrigerants, which can change composition, R-32 is easy to top off or clean and reuse on-site. It's also easy to reclaim and reuse off-site with a simple cleaning process.

Perhaps most importantly, R-32's excellent thermodynamic properties allow the new Daikin ATMOSPHERA system to be up to 12% higher in SEER and up to 18% higher in HSPF than the Daikin LV Series using R-410A, lowering indirect emissions throughout the lifecycle of the systems. Additionally, because R-32 has a GWP of 675 and requires less charge in certain systems, direct emissions from those systems can be up to 80% lower than similar R-410A systems. The result? Fewer greenhouse gas emissions that contribute to climate change, based on Daikin studies.

R32 is focused on four main elements:

Proven

- Globally accepted
- Installed base of over 160 million units from 40 OEMs

Efficient

- Excellent thermodynamic properties
- Reduced indirect emissions vs. R-410A
- Can consume less electricity over the lifetime of the equipment vs. R-410A

Easy

- Pure, single-component refrigerant
- Easy to top off, or clean and reuse on-site
- Easy to reclaim and recycle

Available

- Adopted in over 90 countries
- A component in R-410A
- Non-proprietary

ALIGNING WITH GOALS OF:

1. Decarbonisation and

Electrification – moving towards clean energy. An effective source of heat to comfortably offset older or inefficient sources of heat using fossil fuels.

2. Lower GWP refrigerant – reduce emissions at the source. Utilising a refrigerant with lower Global Warming Potential (GWP) compared to conventional refrigerants.



Emissions Comparison



CAR:
4.6 METRIC TONNES
(4600 KG / YEAR*)



DAIKIN
ATMOSPHERA
with R-32 Refrigerant:
1.4 METRIC TONNES
(1428 kg / year**)

* www.epa.gov/green-vehicles/greenhouse-gas-emissions-typical-passenger-vehicle

** Calculated using the LCPC method with a 1-tonne system installed in Seattle, WA.

Elevate projects with R-32

Up to 18% more efficient

Up to 12% higher SEER2 and up to 18% higher HSPF (compared to R-410A Daikin LV Series).

More thermal capacity

Up to 21% higher cooling capacity at 115°F DB and 51% higher max heating capacity at -13°F WB compared to R-410A Daikin LV Series and R-410A Daikin AURORA units

Designed to draw less electricity

Up to 30% improvement in full load cooling EER and up to 14% improvement in full load heating COP (compared to R-410A Daikin LV Series and R-410A Daikin AURORA systems).

Uses less refrigerant

Up to 41% less factory refrigerant charge than a similar Daikin LV Series R-410A system.

Efficient in harsh conditions

Up to 14% higher COP at 5°F (compared to Daikin AURORA R-410A systems).

Wide Operation Range

Whatever the climate, Daikin ATMOSPHERA systems can provide quiet and energy-efficient comfort.

115°F
(46°C)

WARM CLIMATES
WITH HEAT AND HIGH
HUMIDITY.

COLDER CLIMATES
WITH RELATIVELY
COOL SUMMERS.

-13°F
(-25°C)



**For
those hot
summer days**

Up to 100% rated cooling capacity at 115°F (46°C)

- Hybrid Cooling reduces humidity without over cooling the space
- **CLEAN** operation dries the interior of the indoor unit to reduce the amount of condensation present
- **COMFORT MODE** directs air horizontally in cooling to prevent cold airflow from being blown directly onto the body

**For
those cold
winter nights**

Up to 100% rated heating capacity at 5°F (-15°C), operation down to -13°F (-25°C)

- **COMFORT MODE** directs air downwards in heating to drive warm air to the bottom of the room.
- **HOT START** reduces cold drafts when first operating in HEAT mode


Features & Benefits

1 **ECONO
MODE** 

2 **3D
AIRFLOW** 

3 **SIMPLIFIED
MAINTENANCE** 

4 **POWERFUL
OPERATION** 

5 **COMFORT
MODE** 

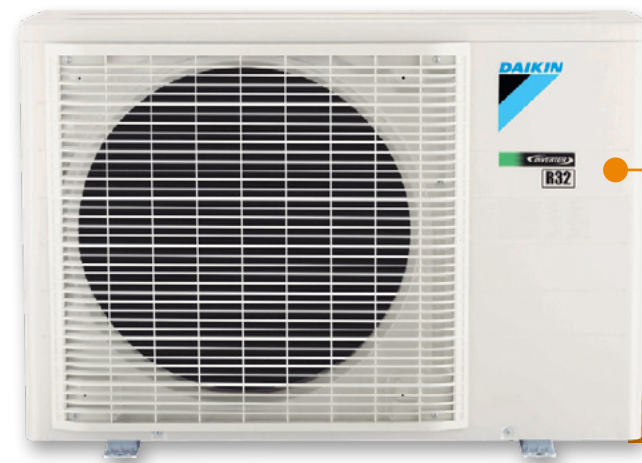
6 **INTELLIGENT
EYE** 

7 **HYBRID
COOLING** 

8 **CLEAN
OPERATION** 

 **BUILT-IN
WIFI**

- Standard Features and Benefits
- New features and benefits unique to the Daikin ATMOSPHERA



R-32 REFRIGERANT

9 **INCREASED
FACTORY CHARGE
AND PIPING
ALLOWANCES VS.
PREVIOUS MODELS**

Overview

1. Econo Mode

Limits the maximum operating current and power consumption of the outdoor unit by approximately 30% during start-up. This saves energy and reduces the load on the electrical circuit when multiple electrical devices are used simultaneously.

2. 3D Airflow

Combines vertical and horizontal auto-swing to circulate cool/warm air to the corners of large spaces.

3. Simplified Maintenance

The indoor unit has been redesigned for easier removal of the drain pan (compared to other wall-mounted units).

4. Powerful Operation

Pushing the **POWERFUL** button on the remote control gives you a boost in cooling or heating power for a 20-minute period, even if the unit is already operating at high capacity.

5. Comfort Mode

When cooling, the flap positions itself horizontally to keep cold airflow from being blown directly onto the body. When heating, the flap turns vertically downwards to drive warm air to the bottom of the room.

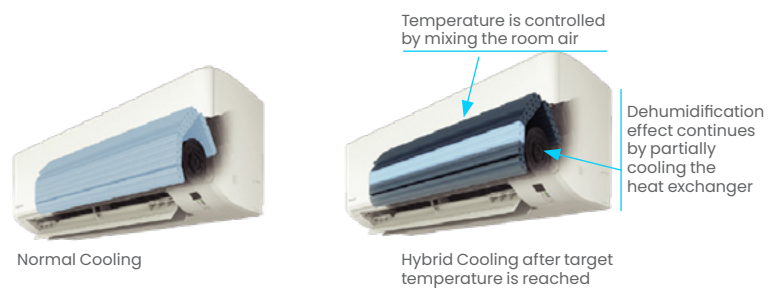
With the Daikin Comfort Control app you are always in control. You can use your tablet or smartphone to access your Daikin ATMOSPHERA system via the internet, no adaptor required.

6. Intelligent Eye

An infrared sensor with the ability to sense movement in the room. If the room is empty for 20 minutes, it changes the set point to start saving energy.

7. Hybrid Cooling

Dehumidifies efficiently even in low cooling loads, and maintains dehumidification effect after the target temperature is reached.



8. CLEAN Operation

The CLEAN function dries the interior of the indoor unit to reduce the amount of condensation present. When COOL or DRY operation is performed, condensation may occur inside the air conditioner. It is recommended to dry the inside of the air conditioner using CLEAN operation.

9. Increased Factory Charge and Piping Allowances

Daikin ATMOSPHERA is pre-charged to serve piping lengths up to 49 ft. (15m), a 50% increase in pre-charge coverage compared to previous models.

* For complete warranty details, enquire with AIRCARE.

Year-Round Comfort, with Efficiency at the Core

Knowledge is power

In general, system performance is measured by a higher Seasonal Energy Efficiency Ratio (SEER2) and Energy Efficiency Ratio (EER2). Higher ratings mean lower operating costs. Similarly, a higher rated Heating Seasonal Performance Factor (HSPF2) and Coefficient of Performance (COP) means a more efficient air-source heat pump.

Why is it important?

The COP of a heat pump is the ratio of: $COP = \frac{\text{energy out}}{\text{energy in}}$

When the COP is >1, the result is a system providing more heating energy than energy consumed. As the COP increases, the higher the efficiency — resulting in lower utility costs.

Up to

27.4
SEER2

16.3
EER2

13.8
HSPF2

4.6
COP

Single Zone Daikin ATMOSPHERA
Heat Pump Efficiency Ratings



Specifications

Unit Combination		Power Supply				Compressor	OFM		IFM	
Indoor Unit	Outdoor Unit	Hz - Volts	Voltage Range	MCA	MOCP	RLA	W	FLA	W	FLA
FTXM09VVJU	RXM09VVJU	60 - 208	Min. 187 V Max. 253 V	12.3	15	12	37	0.31	27	0.25
		60 - 230								
FTXM12VVJU	RXM12VVJU	60 - 208	Min. 187 V Max. 253 V	12.3	15	12	37	0.31	27	0.25
		60 - 230								
FTXM18VVJU	RXM18VVJU	60 - 208	Min. 187 V Max. 253 V	18.8	20	18.25	123	0.58	61	0.46
		60 - 230								
FTXM24VVJU	RXM24VVJU	60 - 208	Min. 187 V Max. 253 V	19.8	20	18.25	123	0.58	61	0.46
		60 - 230								