Daikin Group in the U.S.

EESI Clean Manufacturing in America
February 26, 2025

About Daikin in the U.S.

We are the largest global provider of Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC&R) solutions, employing more than 98,000 globally and 22,000 talented colleagues in the U.S.

Daikin has played a leading role in transforming the HVAC&R industry and U.S. market for 30 years, through a relentless focus on:

- Open innovation
- Sustainability goals
- Indoor air and comfort
- And enabling stronger communities

With significant operations today across the U.S., Daikin is committed to fostering a better future for everyone – from businesses to consumers to society.

U.S. Business Structure

Specialized companies provide superior solutions to residential and commercial sectors across the U.S.

Daikin Industries, Ltd

Daikin U.S. Corporation
- New York (Market Research, Corporate Communication)
- Washington, DC (Advocacy)
- Silicon Valley (R&D, Open Innovation)

HVAC

Daikin Applied Americas

Daikin Comfort Technologies North America

Amana · Quietflex · motili · VENSTAR

Air Filtration

AAF International

Fluorochemicals and Materials

Daikin America

Commercial Refrigeration

AHT Cooling Systems USA

Oil Hydraulics

All World Machinery

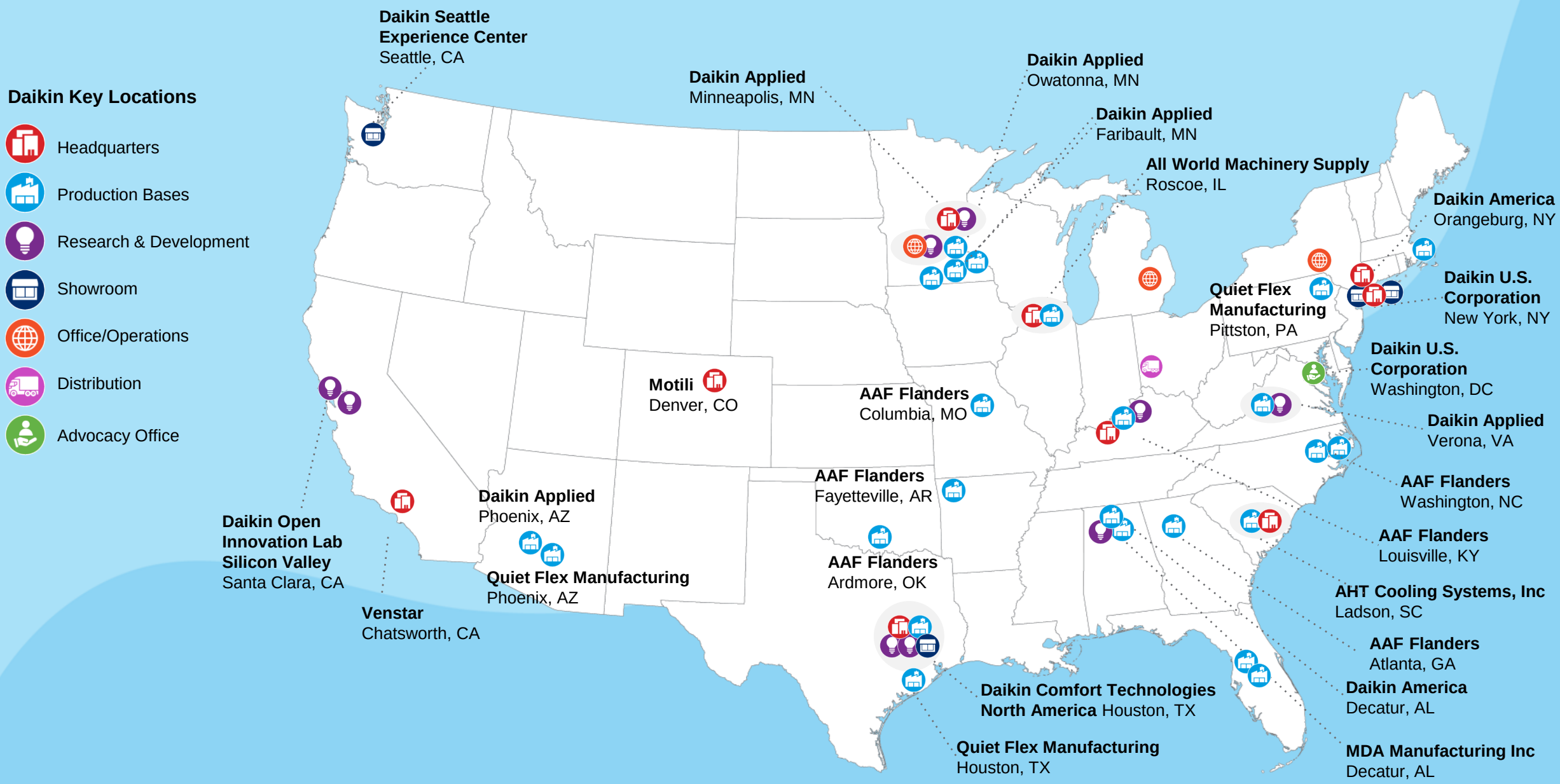
Our Presence in the U.S.

Key Stats in the U.S.

22,000+ employees	**$10.1B** FY23 Sales (¥1,474.4M)	**$9B+** total investment	Sales and services in **50 states**
25 Production Bases	**9** R&D Centers	**30 years** of business since 1994	**400+** Sales Network

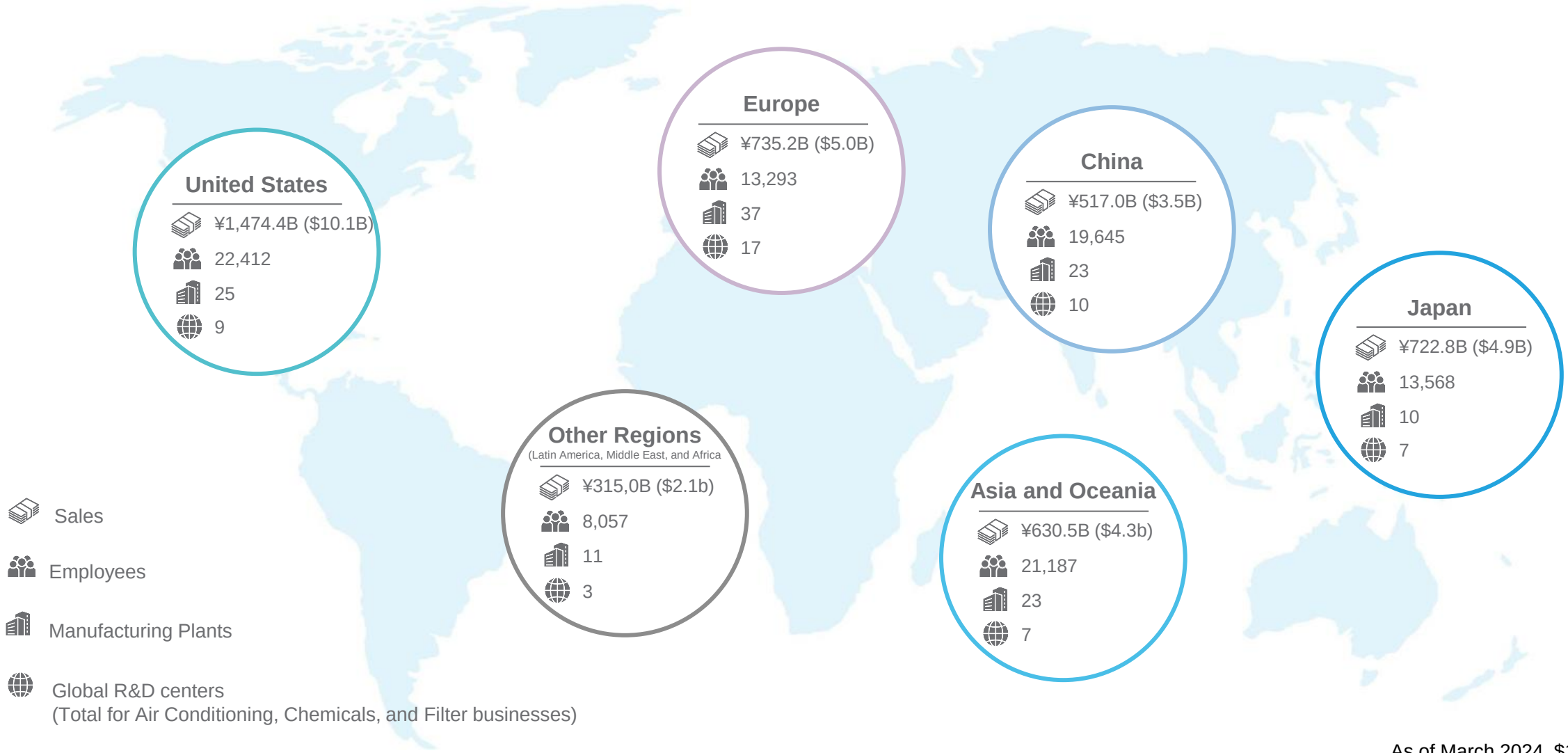
As of March 2024, $1=¥145

Key Locations Across the Nation



Global Presence in Regions

We conduct localized R&D and operations in numerous countries, providing solutions that meet the specific needs and challenges of each region.

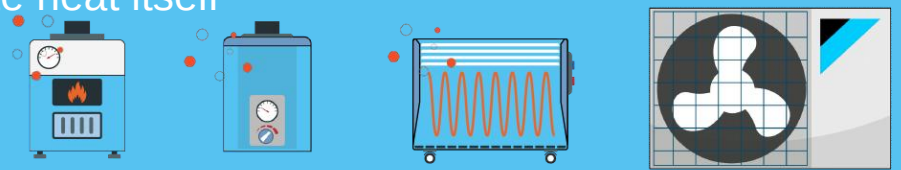


As of March 2024, $1=¥145

Our 3 Core Technologies

1 HEAT PUMP

Heat pumps are more energy-efficient heating and cooling technologies than traditional combustion or electric systems, transferring heat into or out of the home or building without needing to generate heat itself

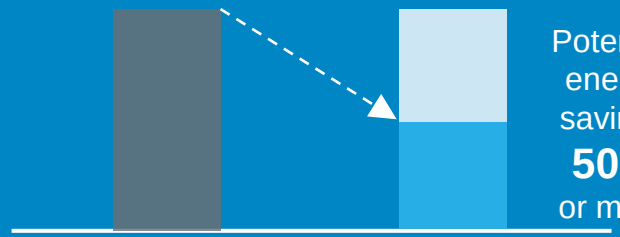


Gas/Oil Energy Efficiency Ratio	Electric Heat Energy Efficiency Ratio	Heat Pump Energy Efficiency Ratio
Less than 1	**1**	**3 to 5 times**

2 INVERTER

An inverter is an energy management and savings technology, eliminating wasted operation in air conditioners or heat pumps by efficiently controlling motor speeds

Immediate Impact by Inverter Technology

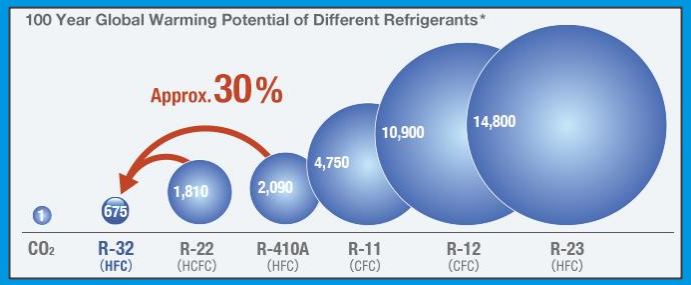


Daikin Core Technology

3 R-32 REFRIGERANT

R-32 is a next-generation refrigerant with less Global Warming Potential and better efficiency than previously used R-410A. It has already been used in 280M units worldwide

Approximately **10%** reduction in electricity consumption



Heat Pumps – Advanced Heating Technology

A Heat Pump provides efficient and reliable heating and cooling, using only a small amount of electricity without the direct use of fossil fuels – supporting broad decarbonization initiatives in the U.S.

The Challenges

More than 40%

of U.S. energy consumption comes from heating and cooling houses, buildings and water

10 million+ homes

In the Northeast U.S. still rely on **gas-fired furnaces**

That accounts for

20% of U.S. greenhouse gas emissions

Heat Pumps enable building Decarbonization

Heat pumps are proven to be

3 to 5 x more efficient

than comparable fossil-fuel-burning furnaces or electric heaters

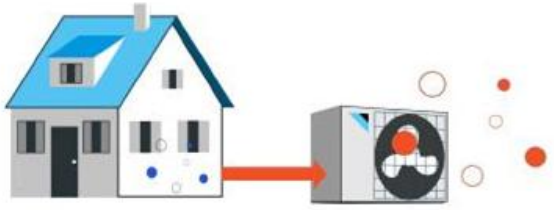
How a Heat Pump Works

1. Heat energy is abundant in outside air, all the way down to –15F

2. Heat is always attracted to something colder. Heat pumps use a small amount of electricity to compress refrigerant making it colder than the outside air

3. During cold months, the heat pump absorbs any heat from the outside air and transfers it into your home to heat your house

4. In warm months, the heat pump switches direction, extracting excess heat from inside your home and transferring it to the outdoors keeping the space inside cool

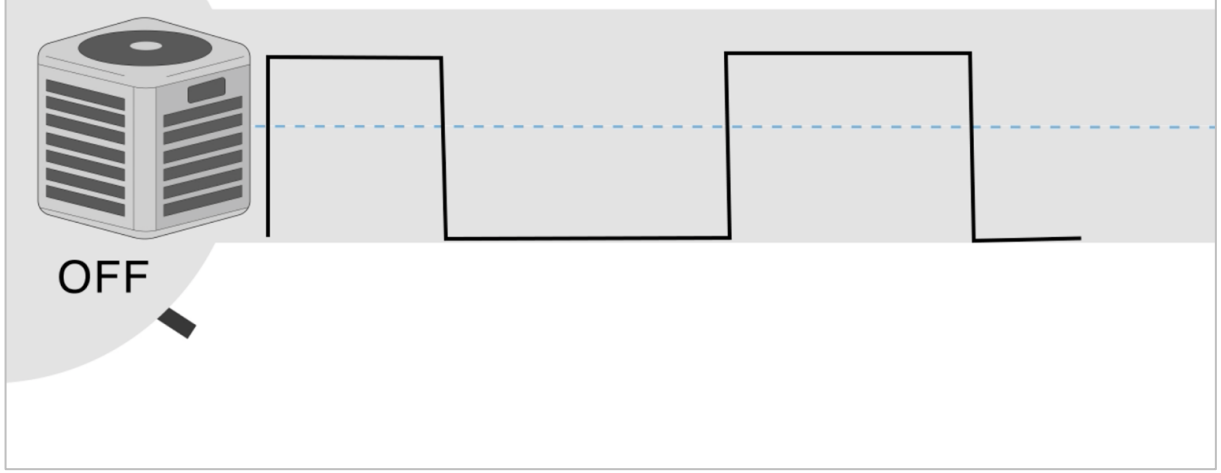


Inverter – Energy Efficient Technology

An inverter is an energy saving technology that eliminates wasted operation in air conditioners and heat pumps by efficiently controlling motor speed.

Conventional HVAC systems

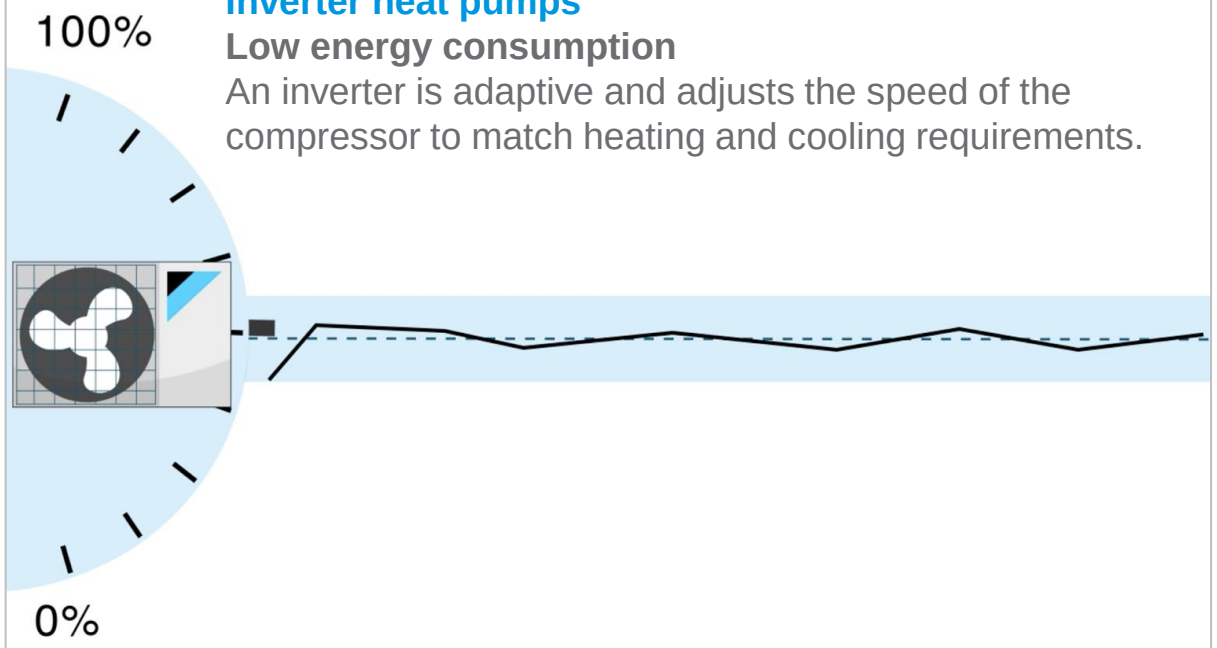
Conventional systems switch on and off depending on when heating or cooling is needed, causing energy consumption to surge.



Inverter heat pumps

Low energy consumption

An inverter is adaptive and adjusts the speed of the compressor to match heating and cooling requirements.



Benefits of Inverter

- Lower monthly energy bills
- Comfortable indoor conditions
- Low operating sound levels
- Consistent indoor conditions
- Less Environmental Impact

Key Benefits of Inverter Heat Pump

Not all heat pumps are created equal! When integrated with innovative Inverter Compressor technology, a heat pump's annual costs and performance can be significantly improved.

Strong Performance in Cold Climates

By more effectively controlling the volume of heat transferred from outside ambient air, new inverter-based heat pumps can effectively operate without backup heating in temperatures as low as -25°F, making them ideal for cold climate applications.

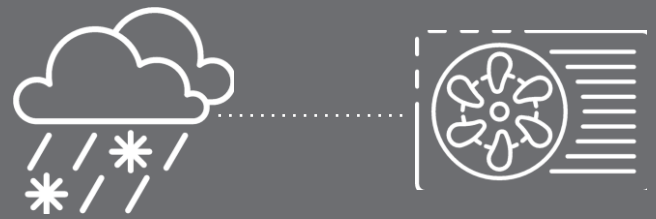
Enabling Demand Response

During peak grid power usage in summer and winter, inverter heat pumps can dynamically keep running at lower capacities with reduced energy usage from the grid, while still enabling a degree of continuous indoor comfort.

Non-inverter or two-stage heat pumps may need to stop operating entirely in these situations, leaving spaces uncomfortable.

Reliability

With less on and off power cycling, more energy efficient indoor and outdoor operation, and the ability to perform in a wide range of low or high ambient temperatures, inverter heat pumps are simply far more reliable, reducing breakdowns and maintenance concerns.



Other Benefits

- Energy saving and lower annual energy costs
- Better indoor comfort due to less temperature swings
- Quiet and relaxing operation
- Smaller footprint (lowering manufacturing material and transportation needs)
- When using the industry-leading refrigerant "R-32", systems require lower amounts of refrigerant than other available options

Daikin Texas Technology Park (DTTP)

One of the 10 largest U.S. manufacturing plants -- the headquarters of our residential business

$500M investment	**26 lines** assembly line
100 Acres (7 football fields)	Opened in **2017**
10,000+ employees	Annual production **4.7M Units** (FY22)

Function: Manufacturing, warehouse, office, showroom, home of North American R&D

Daikin Applied Facilities in Minnesota

Headquartered in Plymouth, MN, our commercial solutions are sold through a network of dedicated sales, service, and parts offices nationwide.

1,800
employees in MN

$2M
worth of products each day

$40M
Investment in Faribault North Facility

These locations manufacture products such as commercial air handlers used to condition and circulate large volumes of air throughout a space via ductwork.

Every product is designed to meet the customer's specific needs, thanks to our highly trained and skilled factory workers.

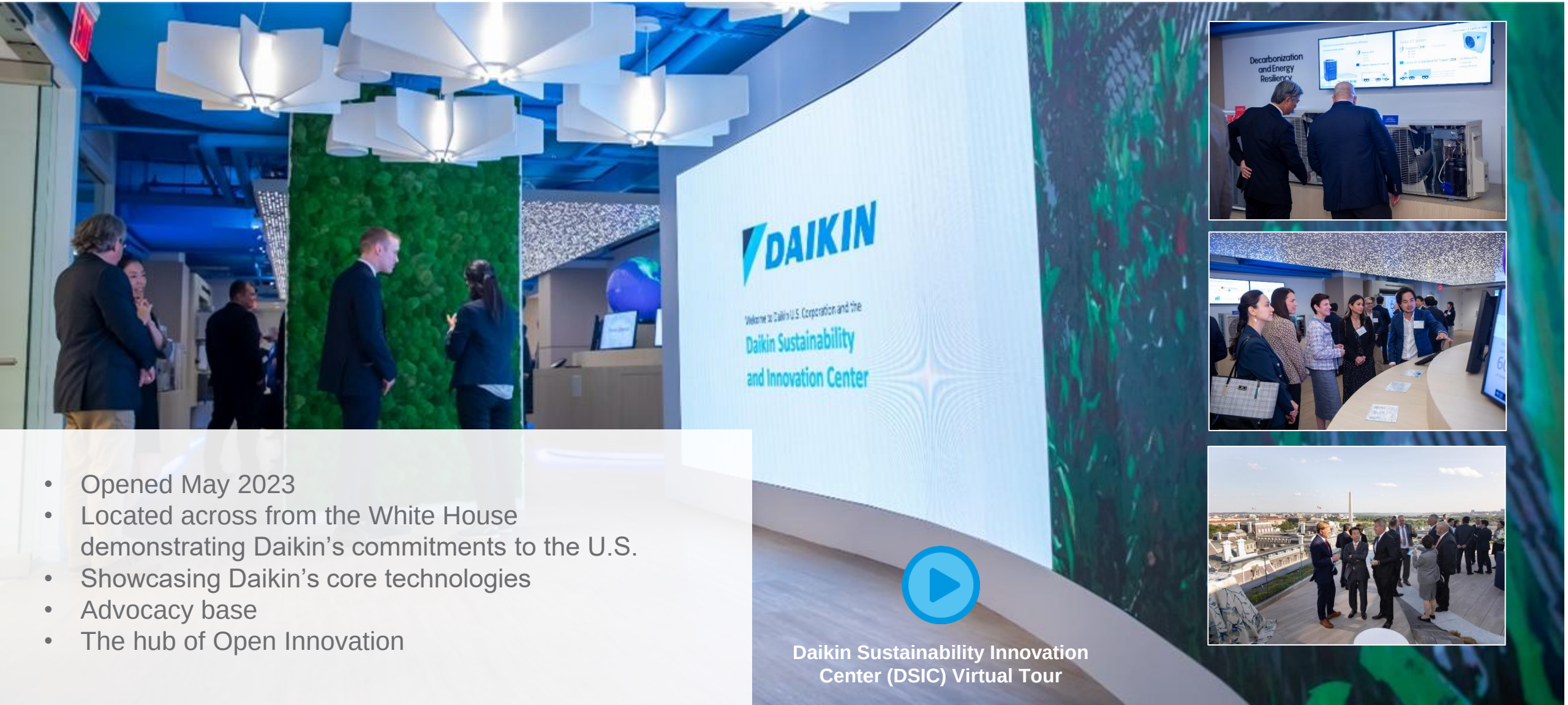

OWATONNA FACILITY


FARIBAULT SOUTH FACILITY


FARIBAULT NORTH FACILITY

D.C. Office and Daikin Sustainability Innovation Center

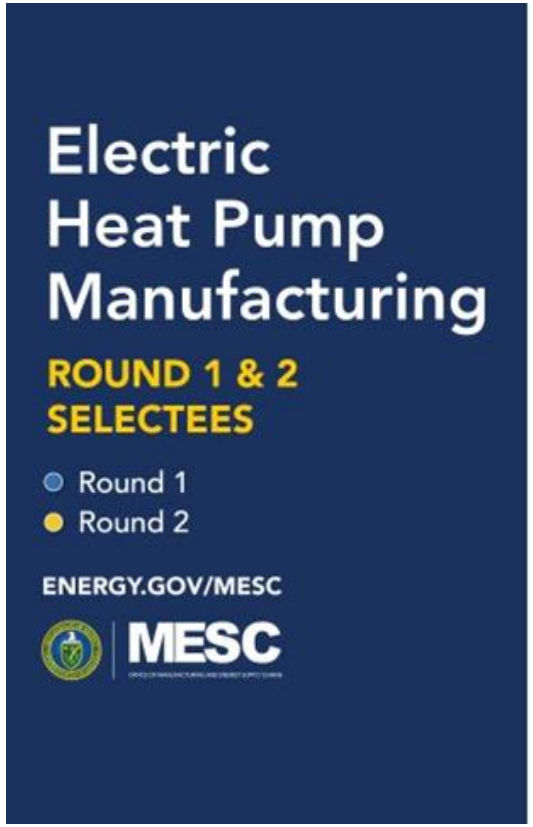
Daikin's new hub fosters open innovation with government, NGOs, competitors, academia, and startups to advance new sustainable technologies and domestic manufacturing.

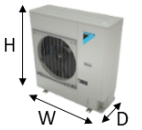
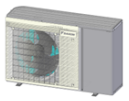
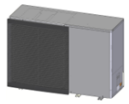


- Opened May 2023
- Located across from the White House demonstrating Daikin's commitments to the U.S.
- Showcasing Daikin's core technologies
- Advocacy base
- The hub of Open Innovation

Daikin Sustainability Innovation Center (DSIC) Virtual Tour

Defense Production Act for Heat Pumps



	Air to Air Cold Climate Heat Pump			Air to Water Heat Pump & Hot Water Solution		
Outdoor Product Type	CCHP FIT (ZEAS)	CCHP Multi Mini-split (TBM)	DOE CCHP Challenge (GQI-Eco)	Altherma 3M (Monobloc Type)		Altherma 3H (Hydro split)
						
H*W*D (mm)	990*940*320	871*1100*460	1430*940*320	737*1245*397	867*1378*520	1019*1270*530
Capacity	Up to 4 ton	Up to 3.5 ton	3 – 5 ton	Up to 2.3 ton	2.5 ton – 4.5 ton	Up to 5 ton
Production Base	DTTP /DMMX	DIT	DIT	DICz	DENV	DENV

Daikin received a $39 million matching grant from the Department of Energy to expand production of Heat Pumps at DTTP Facility

- **Daikin will bring Altherma, an air to water heat pump solution to the North American market.**
- **It will also bring three cold climate air to air heat pump models that will meet the requirements fo the DOE/NRCan Cold Climate Heat Pump Challenge.**
- **Benefits: new jobs, innovative new products, domestic manufacturing, lower energy costs, expanded equipment options.**

Our HVAC Product/Solutions Lineup

Daikin offers a wide range of products and solutions from residential, commercial, to industrial.

Residential | **Commercial** | **Industrial**

T-Stat Platform
Communicating
Wi-Fi Interface
Daikin *One* Cloud Services

HERO Cloud Services

iTM BACnet Client

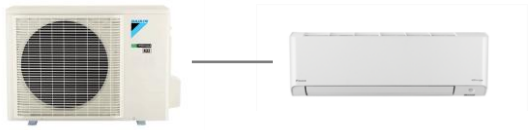
SURVEYOR
Skyport Cloud

Solutions (Energy Management, IAQ, Connected BAS, etc.)

Residential AC

Unitary AC & HP, furnaces

Unitary IAQ



Single Zone AC & HP

Multi-zone AC & HP

Air Purifiers

Air Purifiers

VRV Systems

VRV IDU

Ventilators

For Small Shops & Offices

Rooftops

Applied ACs

Chiller

Air Handler

Applied Terminal Systems

Fan Coils

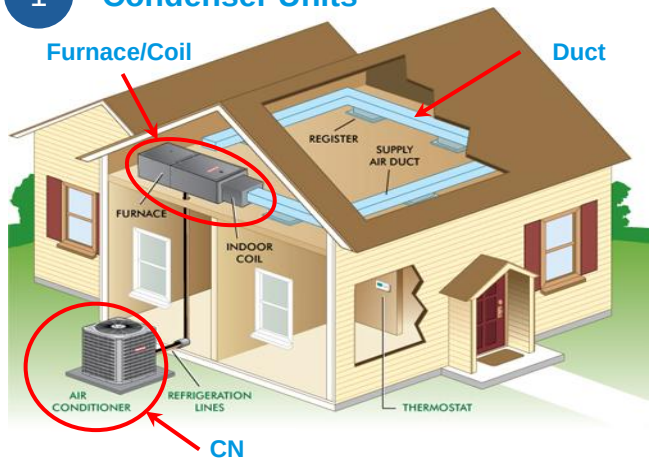
Water Source Heat Pump

Unit Ventilators

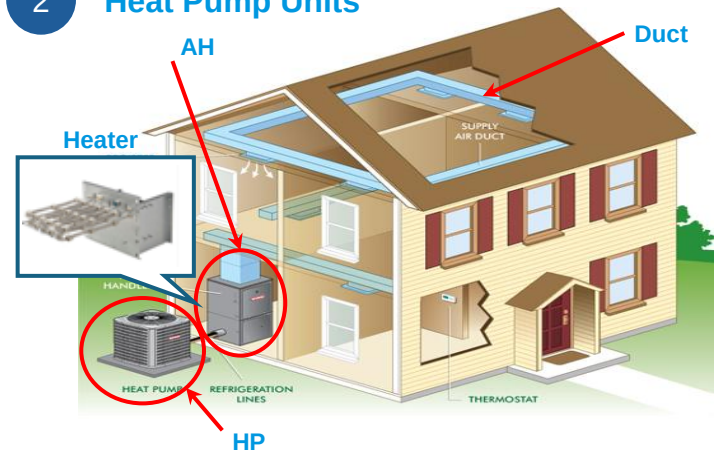
U.S. Residential AC Market

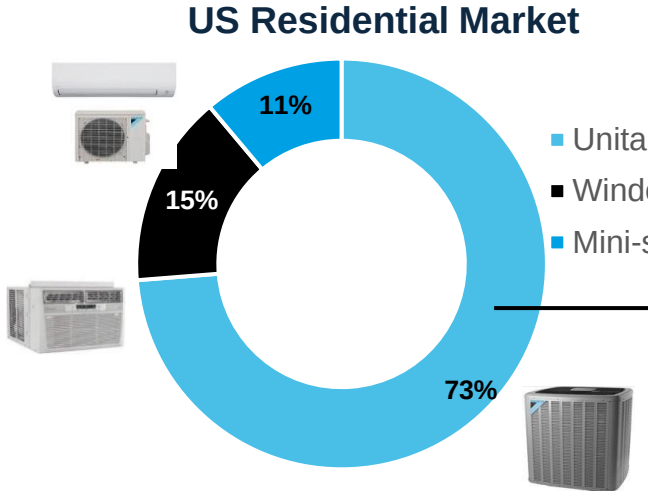
Duct type air conditioning is common for United States and it is about 70% of the market.
Inverters are used only in high-efficiency units (less than 3%)

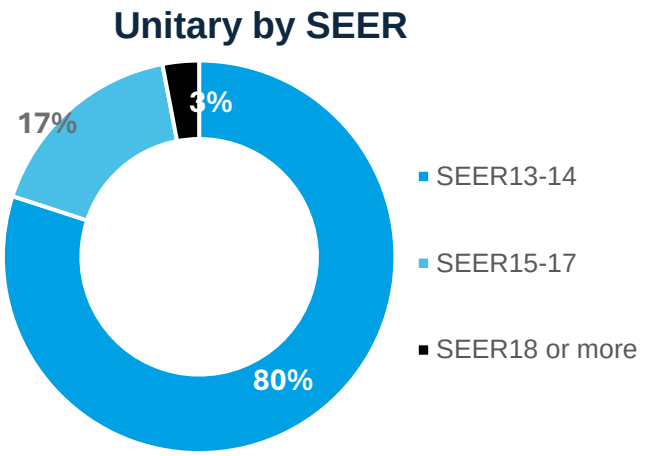
1 Condenser Units



2 Heat Pump Units





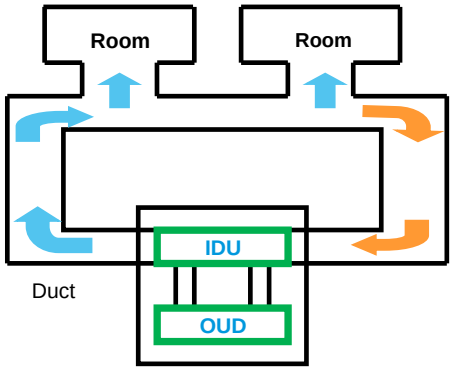


2016 BSRIA
※Not including Package units

Inverters are used only in high-efficiency units

Duct type

- This type of heating and cooling system heats and cools air or water in an air conditioner that integrates the indoor and outdoor units into one unit. Air-conditioned air is then conveyed to each room through pathways called ducts.
- Because it is extremely difficult to adapt equipment individually for a large-scale building where one floor is roughly more than 990 square meters, most large building use central air conditioning.



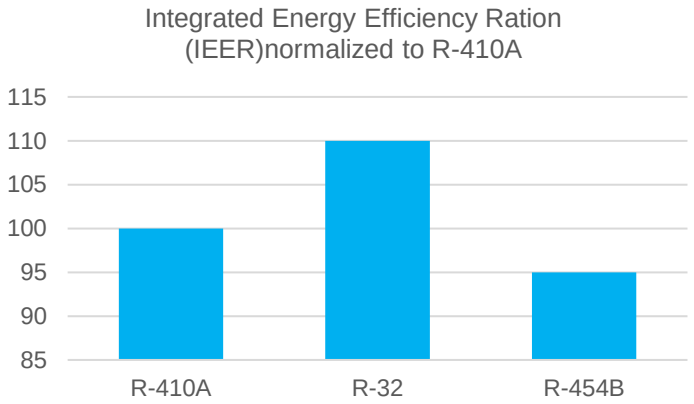
R-32 – Next Generation Refrigerant

The U.S. is focused on lower GWP refrigerants – R-32 products are already proven and in use in 280 million units across the globe, offering many environmental benefits.

EFFICIENT

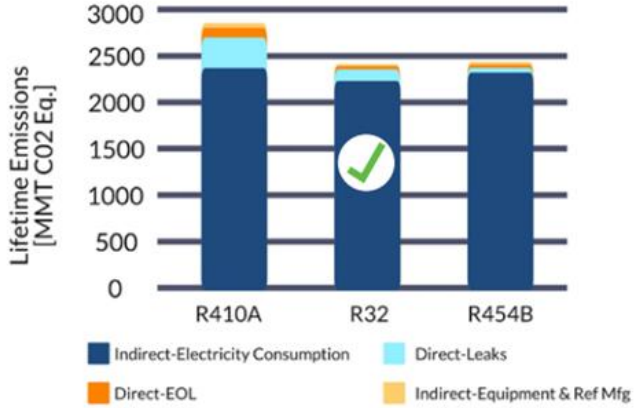
R-32 provides excellent efficiency and capacity;

Better than R-410A and R-454B



LOWER EMISSIONS

R-32 has lower lifetime CO2 eq. emissions

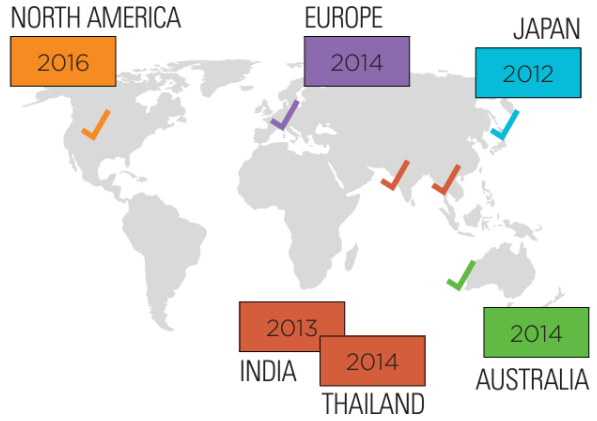


EASY

Unlike blends, R-32 is a pure, single component refrigerant. It is easy to reuse, and reclaim, and recycle.

PROVEN

R-32 has been safely used in over 280 million units in the US and around the world by more than 50 OEMs.



Refrigerants absorb and move heat – acting as a critical component of heating and cooling spaces