

Daikin Overview



Agenda

- A little About me
- About Daikin
- Daikin Offerings
- Daikin Technology

About Me

Personal Life:

- A husband and father of two.
- Veteran (6 Years US Army)
- I love fixing things.
 - A problem without a known solution is my favorite problem.
- Currently a Colorado resident
- SDSU Graduate (BS) – IDS (Information Decision Systems)



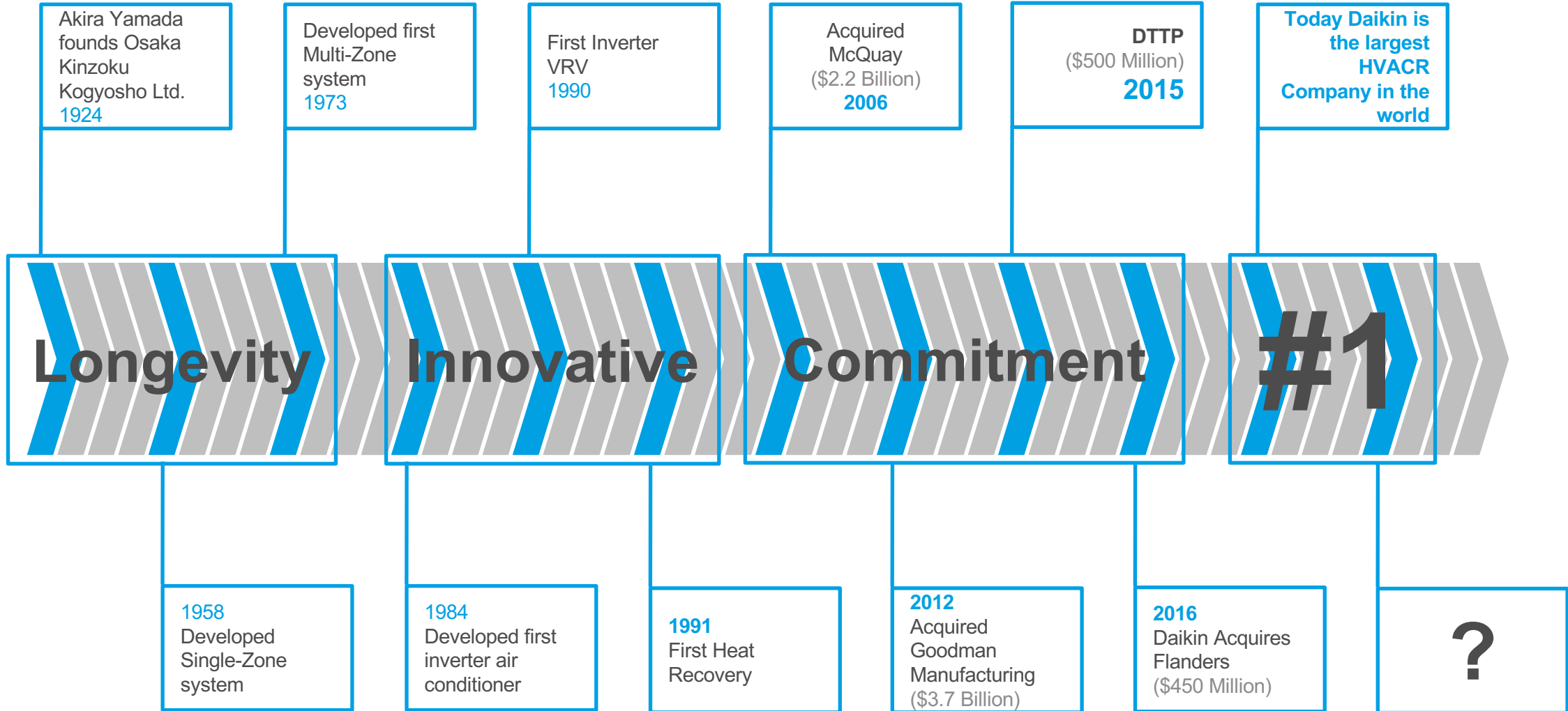
Work Experience:

- Current title: Division Sales Manager for the southwest United States at **Daikin North America LLC**.
 - Previously Senior Product Manager
- Waiter/Bartender, Pizza Delivery Driver
- Retail Salesperson
- Excimer Laser Engineer
- Avionics technician

Agenda

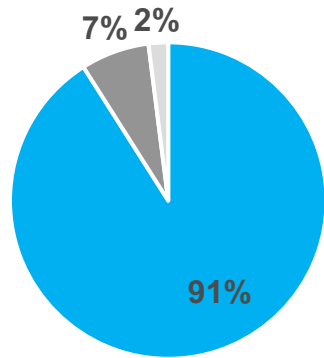
- About Daikin

Parts Of Our History



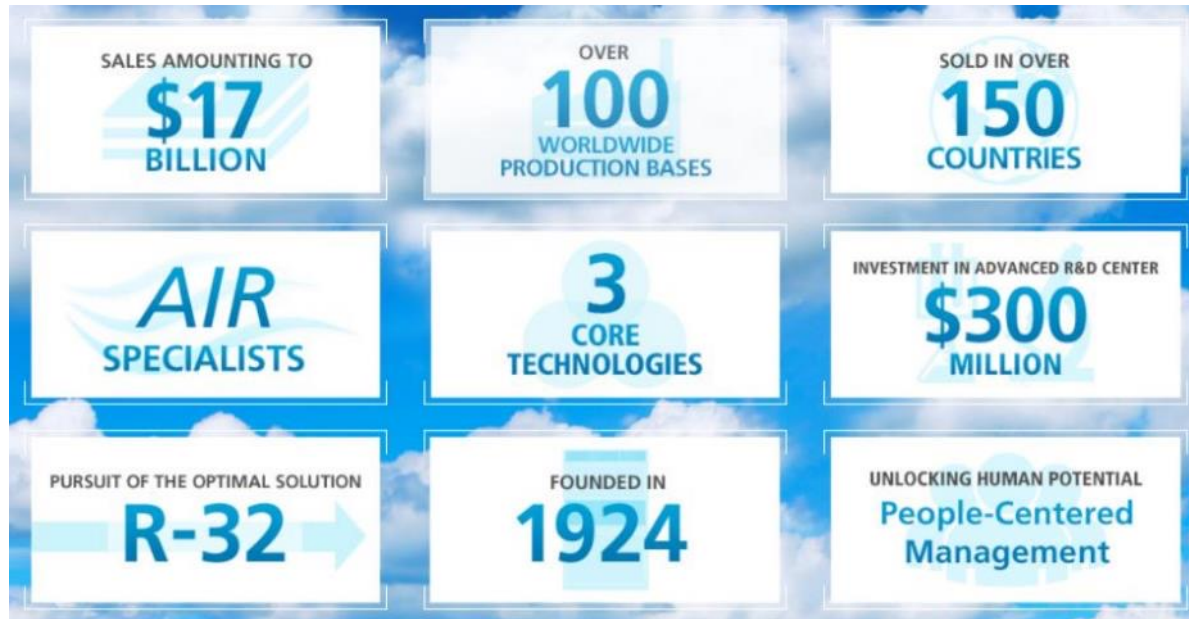
A Little About Us

Business Mix



■ HVAC ■ Chemicals ■ Other

Daikin's Three Business Pillars



Environmental Vision 2050

We will reduce the greenhouse gas emissions generated throughout the entire life cycle of our products.

Furthermore, we will create solutions that link society and customers as we work with stakeholders to reduce greenhouse gas emissions to net zero.

Using IoT and AI, and open solutions, we will meet the world's needs for air solutions by providing safe and healthy air environments while at the same time contributing to solving global environmental problems.



Daikin Texas Technology Park - DTTP

- Located just outside of Houston, Texas
- Office interiors are LEED Gold certified
- 3rd Largest Single Level Manufacturing Facility
- 253 Docks and 700 Trailer Spaces
- Training DoJos
- R&D Labs, Marketing, Engineering, and Manufacturing all under one roof



17K+

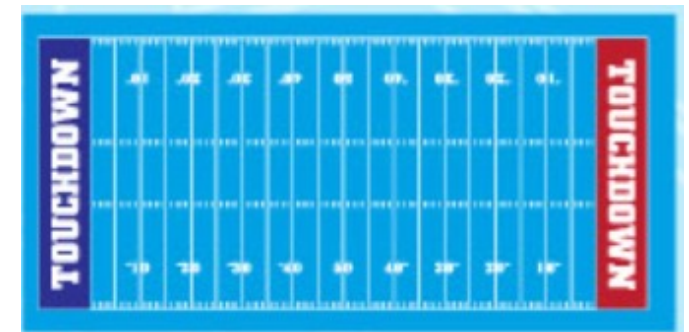
EMPLOYEES IN NORTH AMERICA

25+

YEARS IN NORTH AMERICA

4 Million Square Feet Under One Roof =

74 Football Fields with End Zones



TOTAL INVESTMENTS

\$7B+

DISTRIBUTION LOCATIONS

2,254

DEALERS CONTRACTORS

60K+

FY19 NORTH AMERICAN SALES

\$6B

<https://www.northamerica-daikin.com/company>

Daikin Core Values and Competencies

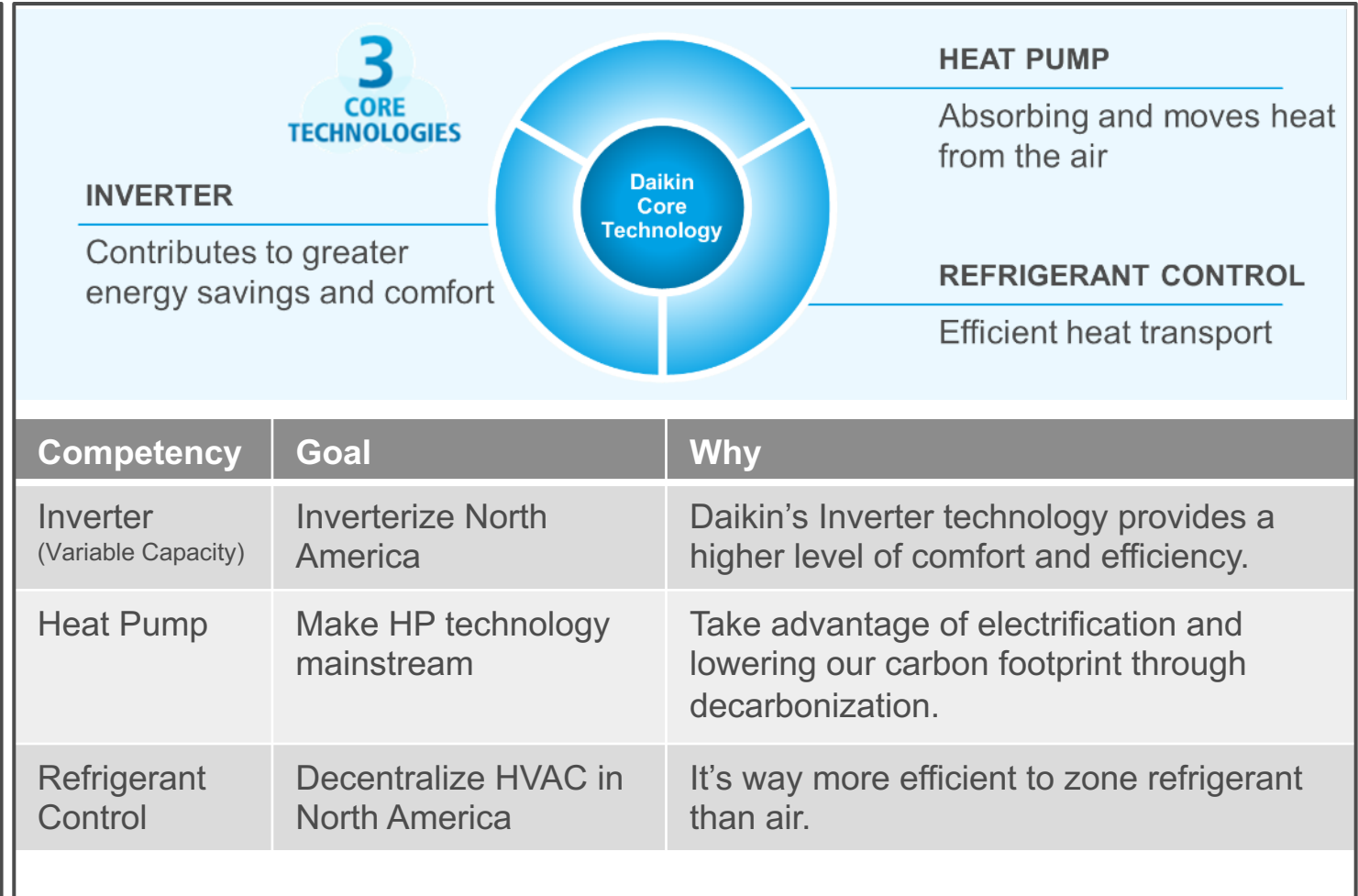
1. Absolute Credibility

2. Enterprising Management

3. Harmonious Personal Relations

Our Group Philosophy is the basis for all action aimed at becoming a corporate group that is trusted by customers worldwide, and that instills pride in Daikin employees around the globe.

Daikin's People-Centered Management, meanwhile, is based on the belief that employee growth generates corporate growth and is implemented with the goal of creating a workplace where employees can use their talents to the fullest.

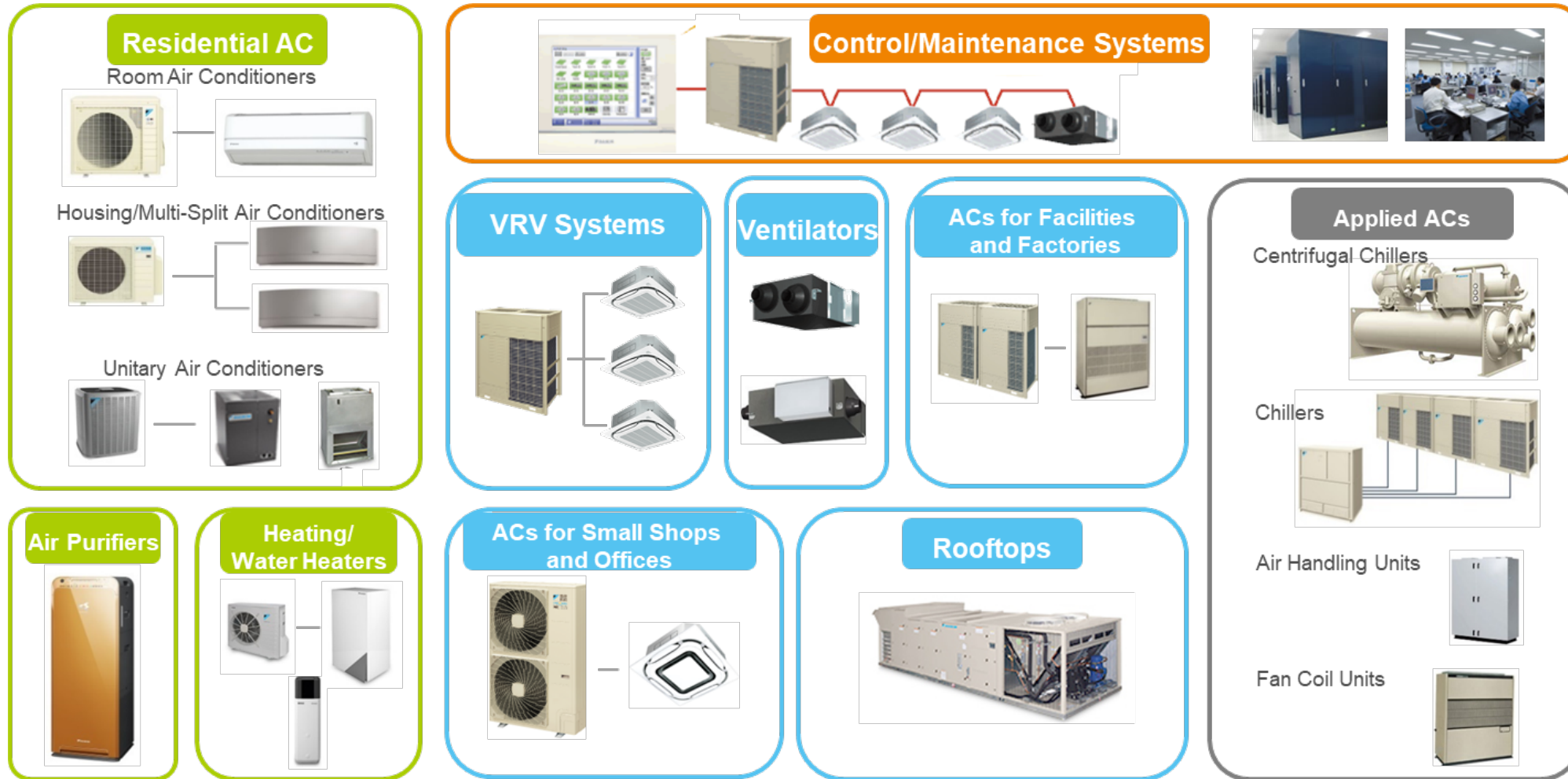


Agenda

- Daikin Offerings

Daikin HVAC Product Lineup

Daikin carries lineup meeting all types of needs including those for energy-savings, the environment, comfort, peace-of-mind, safety, and health



Residential

Commercial

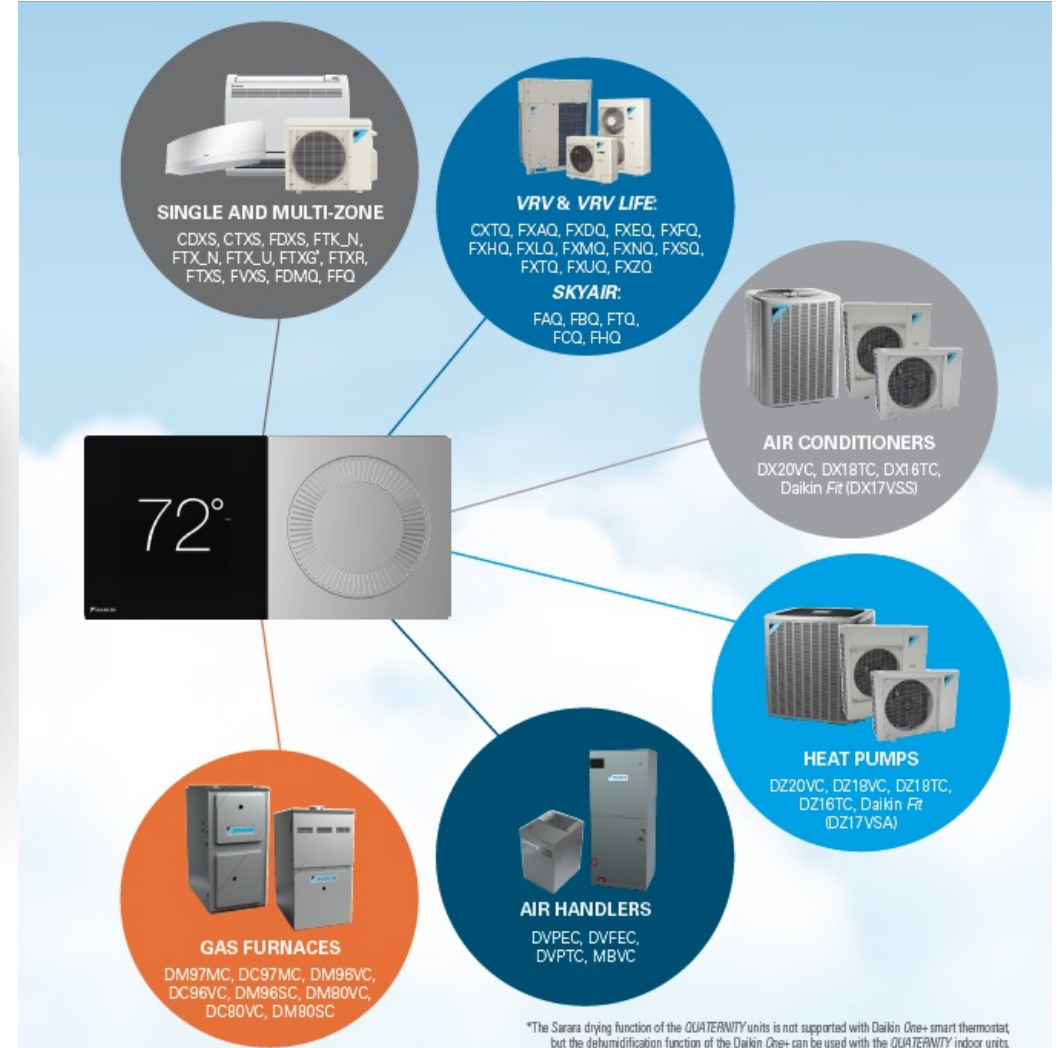
Industrial

Daikin One EcoSystem

Elegant User-Friendly Thermostat



Universal Compatibility



NEW Premium Inverter Unitary Ducted System

Space-saving. Efficient. Affordable.

Daikin *Fit* System Features:

- Up to **18 SEER** / Up to **10 HSPF** (for Heat Pump)
- **Inverter (variable-speed) Compressor** – Ideal indoor comfort and efficiency
- **Low operational sound levels** – Reclaim outdoor space
- **Quiet-mode** – Provides enhanced acoustical comfort
- **Blue Fin Corrosion Coating** – Long condenser coil life and reliability
- **Swing Compressor** – Quiet and dependable
- **Side panel access** – Ease of service for annual maintenance
- **Compact and lightweight** – The trunk style outdoor unit is perfect when installation space is limited

Daikin *Fit* Heat Pump Features:

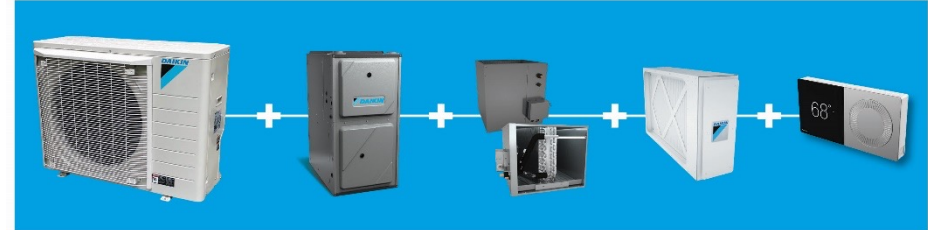
- **Intelligent Defrost Mode** – The outdoor unit will enable this mode to help prevent frost/ice from building up in cold climate conditions. It will also help with longer heating operation time for additional comfort for occupants (compared to HVAC systems without this function).
 - A selectable defrost backup heat option, when turned off, will lower power consumption during defrost.
- **Advanced water-shedding drain pan** – engineered with multiple drain holes and channels to help provide effective water shedding.
- **Hot start technology** – When the heating operation starts or when the unit changes from cooling to heating there is no cold draft released into the room.



Backed by a **12-Year Parts Limited Warranty*** and a **12-Year Unit Replacement Limited Warranty***

*Complete warranty details available from your local dealer/contractor or at www.daikincomfort.com. To receive the 12-Year Unit Replacement Limited Warranty and 12-Year Parts Limited Warranty, online registration must be completed within 60 days of installation. Additional requirements for annual maintenance are required for the Unit Replacement Limited Warranty. Online registration and some of the additional requirements are not required in California or Quebec.

DAIKIN *FIT* AIR CONDITIONER



DAIKIN *FIT* HEAT PUMP



DAIKIN *FIT* HEAT PUMP WITH DUAL FUEL

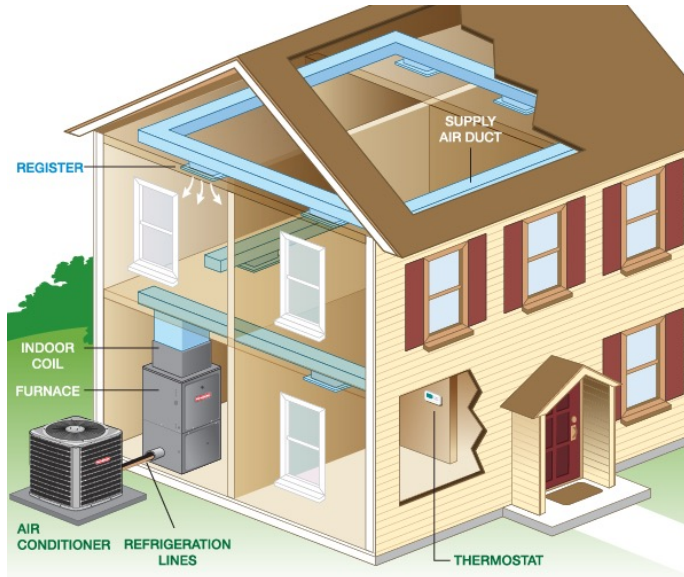


AT TIME OF LAUNCH, PARTIAL OFFERING AVAILABLE: 1.5 to 3.0 tons with upflow/downflow coils



Primary Types Of Residential HVAC Systems In The Market

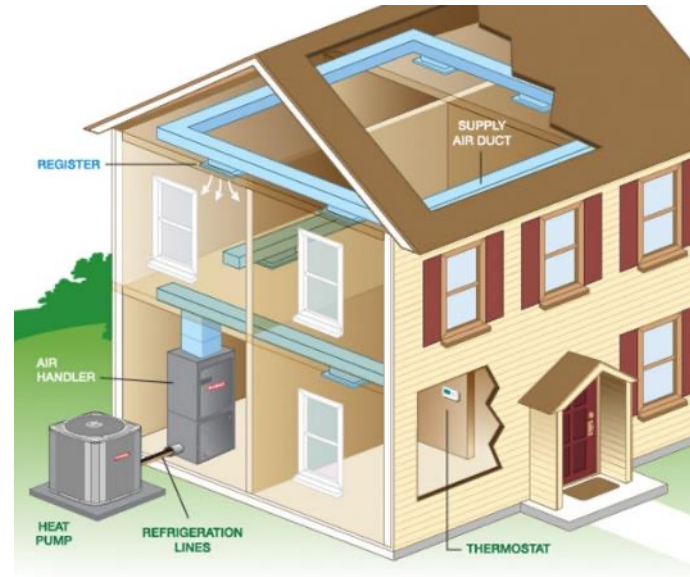
Central AC with gas heating



Central AC with gas heating

- Generally a single or two stage system
- Uses ductwork to distribute conditioned air
- One temperature controller for the whole house
- **Gas furnace** provides heat
- **When its on it conditions the whole house (All lights On)**

Central Heat-pump



Central Heat-pump

- Generally a single or two stage system
- Uses ductwork to distribute conditioned air
- One temperature controller for the whole house
- Outdoor unit provides heat as primary source. **Gas furnace** or electric strip-heat provides backup in colder conditions.
- **When its on it conditions the whole house (All Lights On)**

Decentralized Heat pump



Decentralized Heat pump

- Uses variable speed inverter technology
- Very little to no ductwork
- Each room can have independent temperatures
- Outdoor unit provides heat as primary source.
- **When its on it conditions each room to its independent comfort level (Lights on in the room you want them on)**
- **Really the best option for renewable energy**

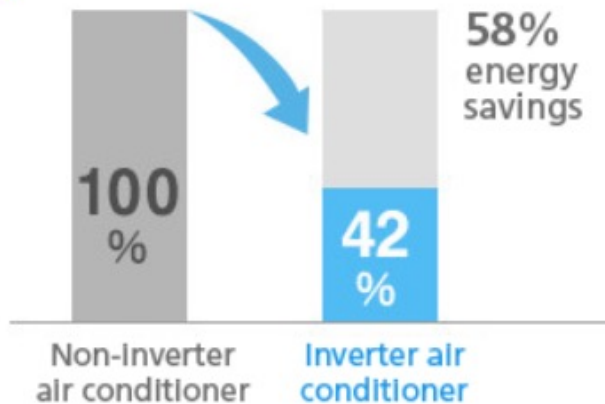
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- Daikin Technology

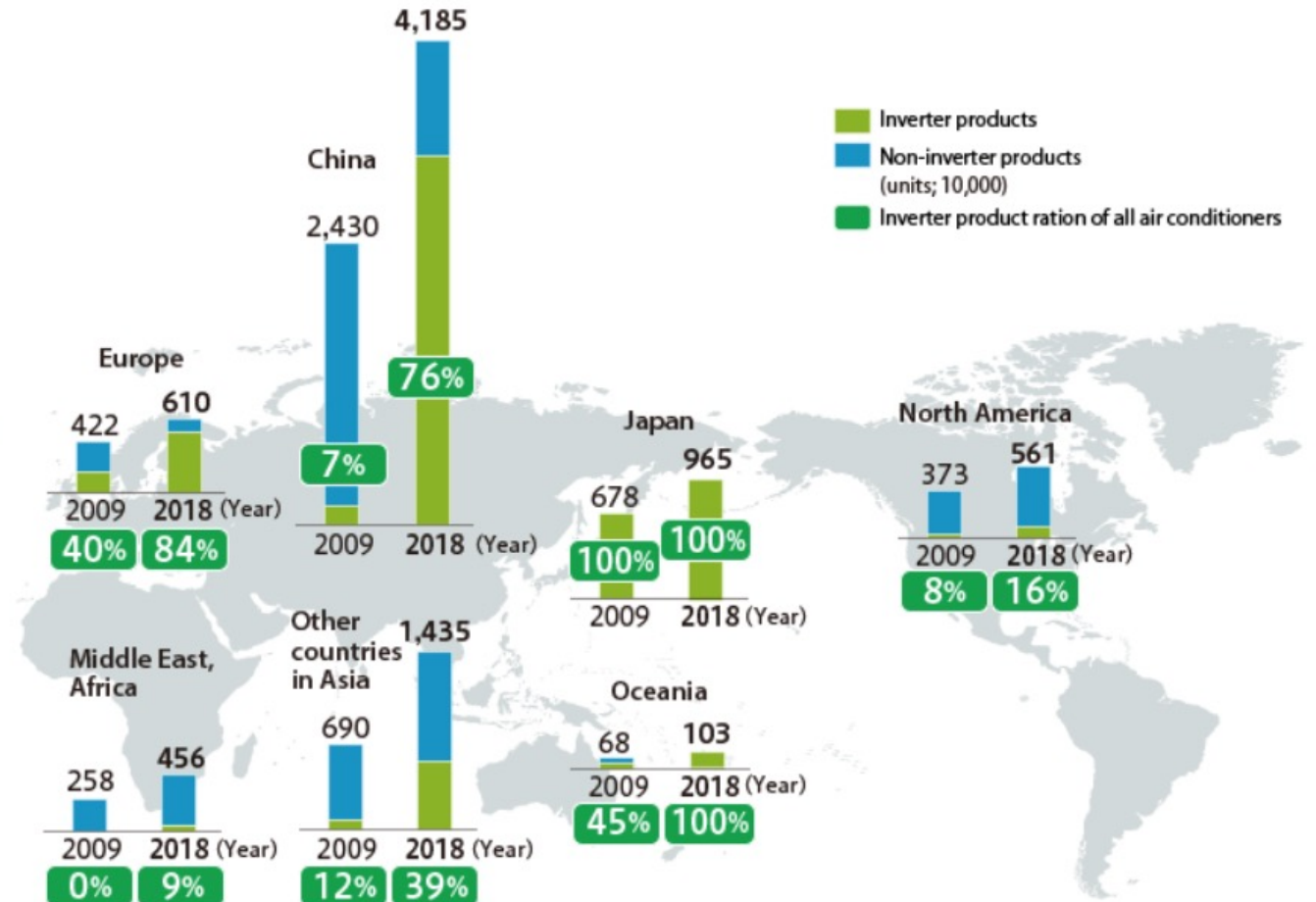
Inverter Technology (Variable Capacity)

- Can Reduce Power Consumption by Approx. 58%
- Inverters are frequency conversion devices that control electrical voltage, current, and frequency. Inverters precisely control the compressor motor, the heart of an air conditioner. Furthermore, in addition to having modified conventional motors and heat exchangers, inverter air conditioners use approximately 58% less energy than non-inverter models.

Comparison of energy consumption (Non-inverter air conditioner 100%)

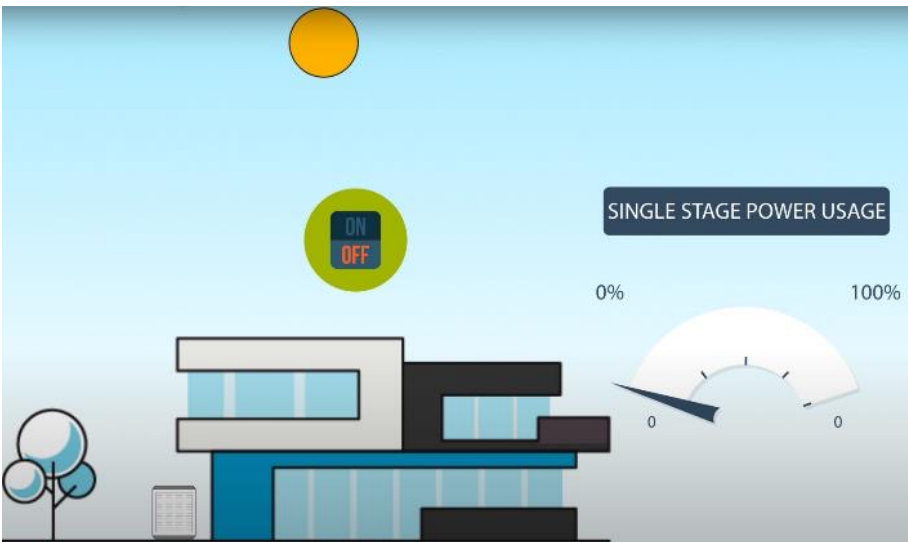


Inverter Products as Percentage of All Residential Air Conditioners Worldwide (2018)

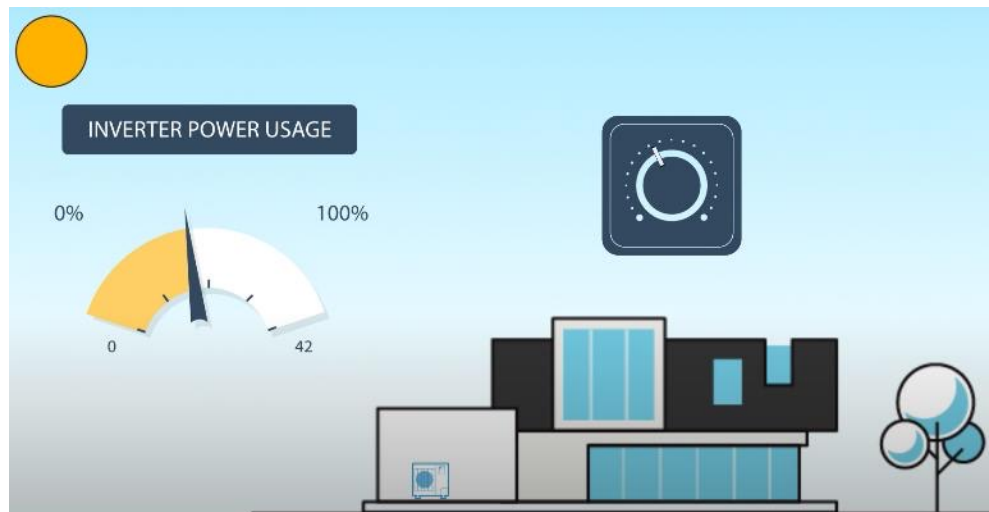
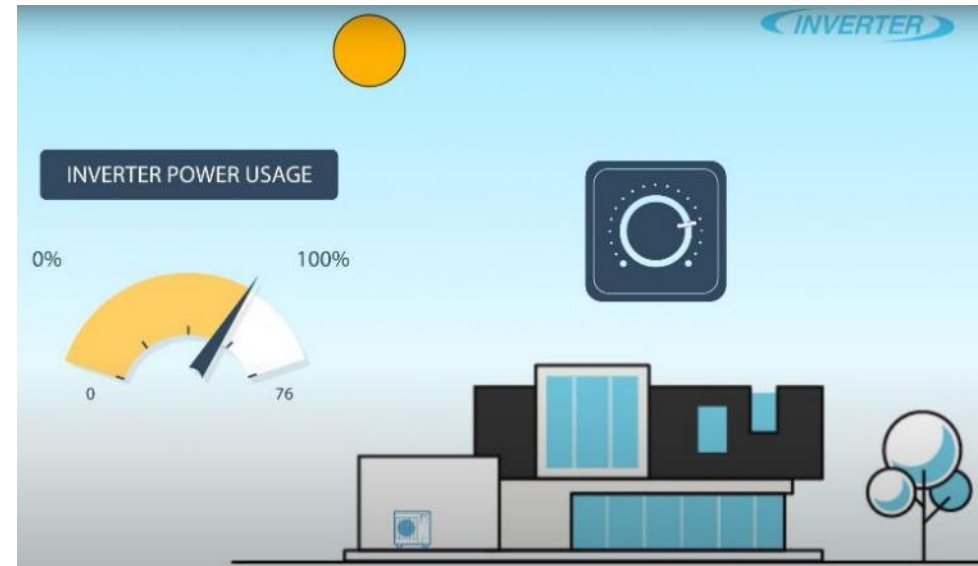


Benefits of Inverter Technology (Variable Capacity)

Central System Non-Inverter



Decentralized Heat pump With Inverter





Daikin Compressor

Daikin Swing Compressor

Friction and refrigerant leakage are suppressed

Improved:

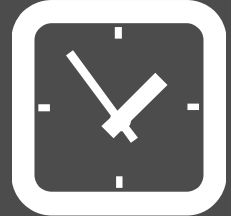
<p>2 pieces action Tapping noise Pressure leak</p>	<p>1 piece action Silent No leak</p>
	
<p>Rotary compressor</p>	<p>Swing compressor</p>




Efficiency



Energy Savings



Compressor Life



Noise Reduction

A2L Refrigerant



R-32

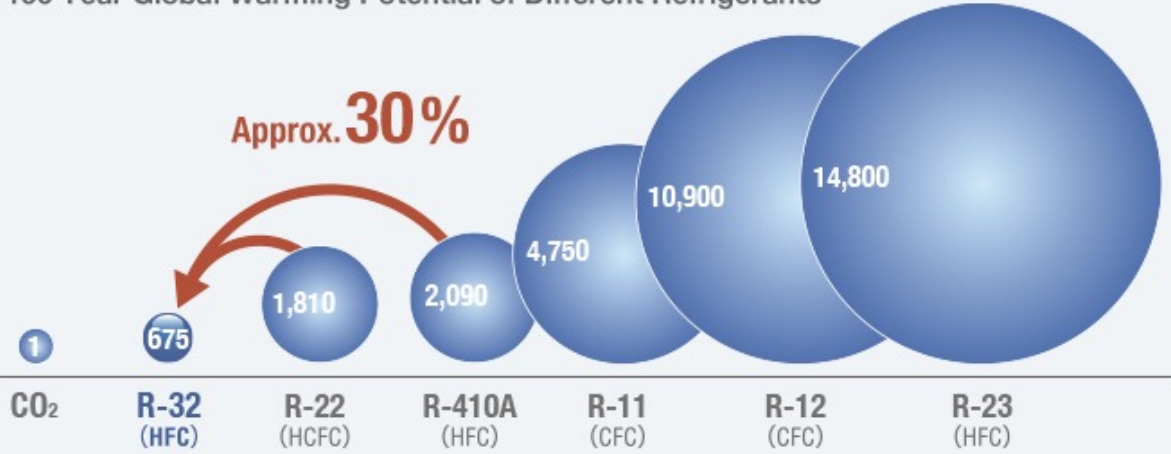
NEXT-GENERATION REFRIGERANT

R-32 refrigerant may be familiar to some, as it makes up **50% of the R410A** refrigerant which is widely in use in newer HVAC systems in the US.

If all machines using R410A were converted to R-32, HFC contribution to global warming would be reduced by the carbon dioxide equivalent of 800 million tons.

100 Year Global Warming Potential of Different Refrigerants*

Approximately
10%
Reduction
in Electricity
Consumption



Daikin Offers Worldwide Free Access to Patents for Equipment Using Next-Generation Refrigerant - 2015



Questions

