

Daikin Ductless Transition

TIM TOCKET
DAIKIN

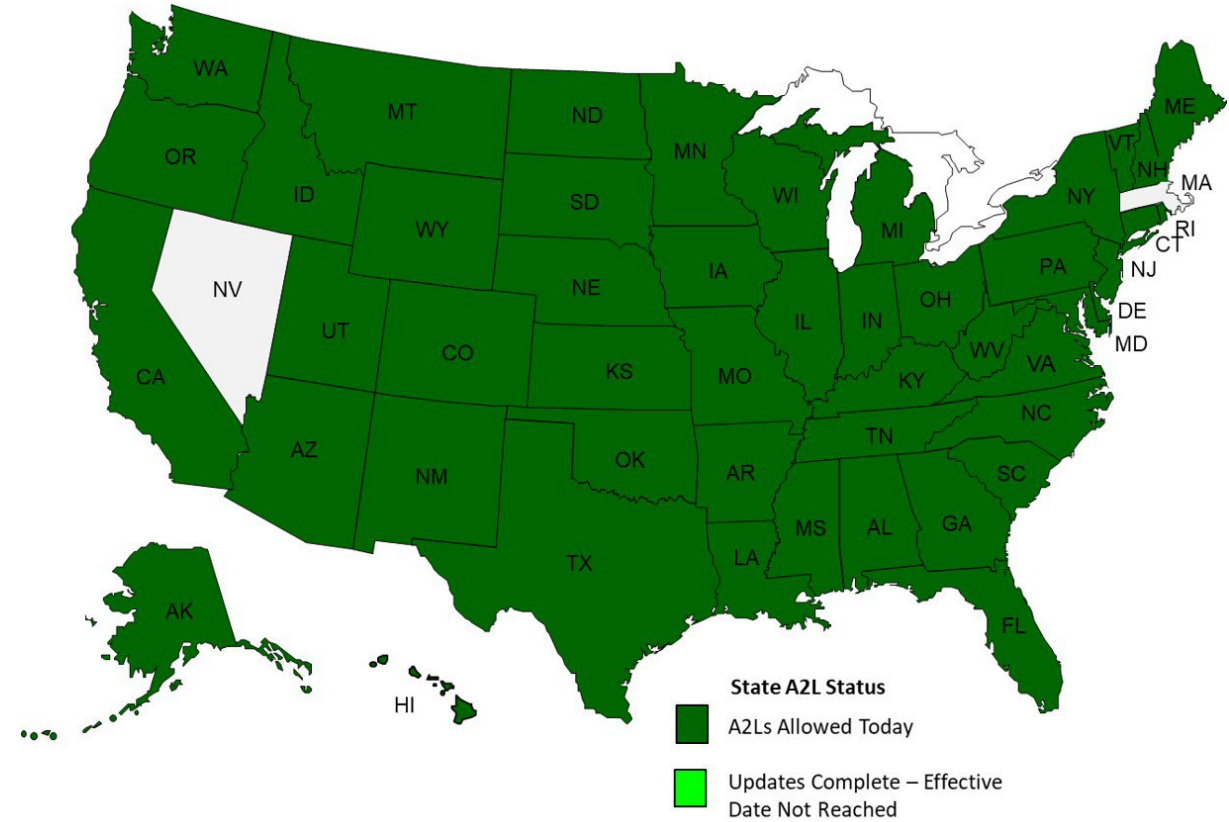
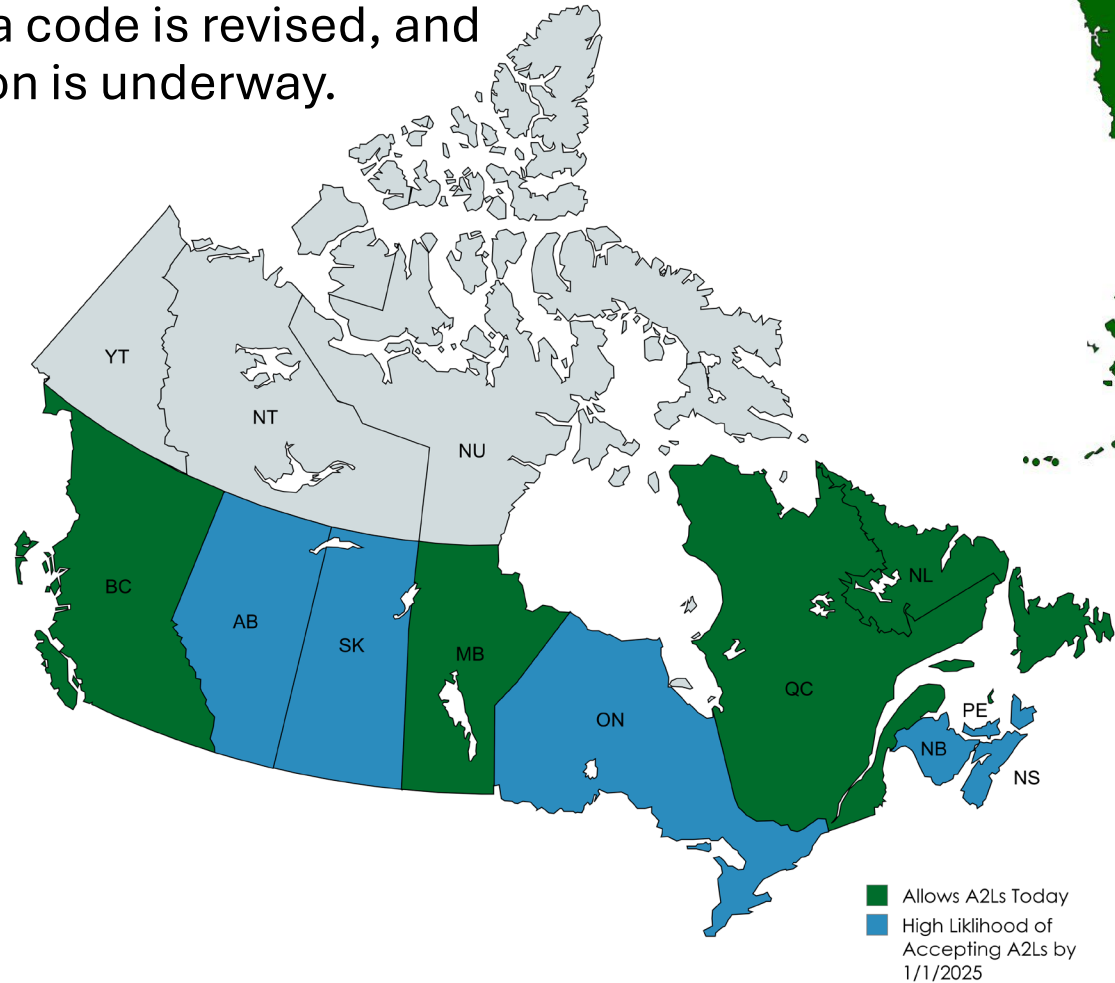


Single & Multi-Zone Systems R32 Transition



R-32 Adoption in North America

- NV and MA only US States still not allowing A2L
- Canada code is revised, and adoption is underway.



RA/QA Compatibility

- A2L's Cannot be used as a Drop-in Replacement for 410A
- 410A RA/QA Components Cannot be used with A2L Systems
- Room Size Restrictions May Apply based on Refrigerant Charge

Indoor unit installation height (ft) Refrigerant amount (lb)	h (ft)					
	2.0	5.9	6.6	7.2	7.9	8.5
< 4.05	No restriction					
4.2	333	74	67	61	56	51
4.4	369	78	70	64	59	54
4.6	407	82	74	67	62	57
4.9	447	86	77	70	64	60
5.1	489	90	81	74	67	62
5.3	532	94	84	77	70	65
5.5	577	98	88	80	73	68
5.7	624	102	91	83	76	70
6.0	673	106	95	86	79	73
6.2	724	109	98	90	82	76
6.4	777	113	102	93	85	78
6.6	831	117	106	96	88	81
6.8	888	121	109	99	91	84
7.1	946	125	113	102	94	87
7.3	1006	129	116	106	97	89
7.5	1068	133	120	109	100	92
7.7	1131	137	123	112	103	95
7.9	1197	141	127	115	106	97
8.2	1264	145	130	118	108	100
8.4	1334	149	134	122	111	103
8.6	1405	156	137	125	114	106
8.8	1478	164	141	128	117	108
9.0	1553	173	144	131	120	111
9.3	1629	181	148	134	123	114
9.5	1708	190	154	138	126	116
9.7	1788	199	161	141	129	119



Localization of production in the Americas: Mini-Splits

Production expansion in San Luis Potosi (Mexico)

January 2023



- Daikin is investing in the North American market by localizing production for mini-splits within the region

R-32 Product Schedule

- AURORA 1:1**
- HP ODU (RXT)
 - Wall-Mounted IDU (FTXV)

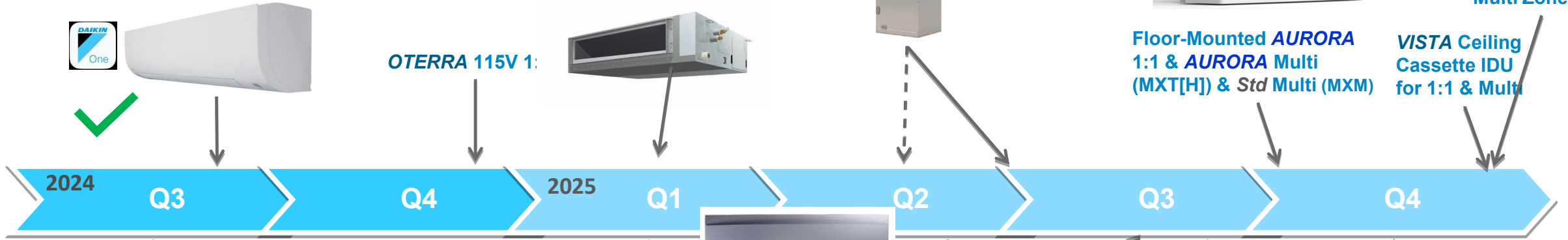
- SkyAir 1:1**
- HP ODU (RZA)
 - Ducted Concealed IDU (FBA)

- SkyAir 1:1 Multi-Positional AHU (FTA)**

AHU IDU for Multi Zone

Floor-Mounted AURORA 1:1 & AURORA Multi (MXT[H]) & Std Multi (MXM)

VISTA Ceiling Cassette IDU for 1:1 & Multi



- **AURORA Multi (MXT[H]) 18k (2:1)**
- **Std Multi (MXM) 18k (2:1), 24k (3:1), 36k (4:1)**
- **Wall-Mounted IDU (FTXV)**

OTERRA 1:1 Wall-Mounted Mexico Production

SkyAir 1:1 Ceiling Cassette IDU (FCA)

EMURA 1:1 Wall-Mounted IDU Pair (New ODU) & Multi (MXM)

- **AURORA Multi (MXT[H]) 24k (3:1), 36k (4:1), 42k (5:1)**
- **Std Multi (MXM) 48k (5:1)**

- **Ducted Concealed IDU (FDXV)**
- **AURORA 1:1**
- **Ratings with AURORA Multi (MXT[H]) 24k (3:1), 36k (4:1), 42k (5:1) & Std Multi (MXM) 48k (5:1)**

SkyAir 1:1 Wall-Mounted (FAA)

Future - Not included above:

- 30/36 Pair, Q1 2026
- One Way Cassette – 2026
- FDXV Std Pair, Q1 2027



*SUBJECT TO CHANGE 98

2025
Ready!

R-32 Available Products NOW:

- Daikin ENTRA 18 SEER2- HP
- Daikin OTERRA 21 SEER2 - HP and Cooling Only
- Daikin AURORA up to 21 SEER2 - Cold Climate and built in WiFi
- Daikin ATMOSPHERA up to 27.4 SEER2- Cold Climate and built in WiFi
- Daikin MXM 21 SEER2 – Standard Multi (2, 3, 4 Zone, wall mount)
- Daikin MXT 21 SEER2 – Cold Climate Multi (2 Zone, wall mount)
- Daikin MXTH 21 SEER2 – Cold Climate Multi w/ Pan Heater (2 Zone)
- And more coming soon!

Daikin *ENTRA* – Single Zone – R-32



NEW

R-32



No Built in WIFI

Controller Included

- **Heat Pump Only**
- **9K, 12K, 18K, 24K Btu**
- **18 SEER2**
- **9.0 HSPF2**
- **Up to 11 EER2**
- **Same Easy access to Fan Motor and removable drain pan**

High Cost



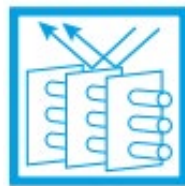
Low Cost



Powerful Mode



ECO+



Blue Fin Protection



Titanium Apatite Filter

- Applications**
- **Low-cost target**
 - **High quality entry level**
 - **Primary Market – Residential**
 - **Spot Cooling/Heating**

Daikin *OTERRA* – Single Zone – R-32



NEW

R-32



No Built in WIFI

Controller Included

- **21 SEER2**
- Up to **10.2 HSPF2**
- 9, 12, 18, 24 kBtu
- Heat Pump & Cooling Only
- Low-Ambient Cooling to -4F
- Same Easy access to Fan Motor and removable drain pan
- Optional Drain Pan Heater available

High Cost



Low Cost



Powerful Mode



ECO+



Blue Fin Protection



Titanium Apatite Filter

- ### Applications
- Low-cost target
 - High quality entry level
 - Primary Market – Residential
 - Spot Cooling/Heating

Daikin *ATMOSPHERA* – Single-Zone



R32

First residential product to use R-32 in North America



Controller Included

Built in WIFI



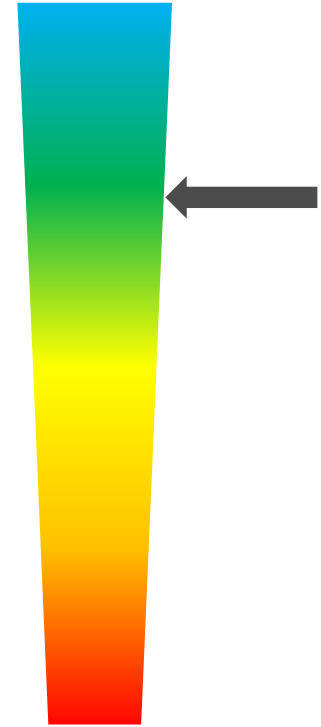
Wall

- Up to 27.4 SEER2, up to 11.2 HSPF2 and up to 16.3 EER2
- 9, 12, 18, 24 kBtu
- Heat Pump

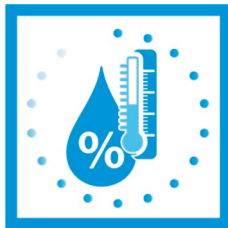
Applications

- Premium market - not available to all markets
- Primary Market –Residential
- Spot Cooling/Heating
- Those wishing to reduce emissions, carbon footprint by utilizing a low-GWP refrigerant

High Cost



Low Cost



Hybrid Cooling



CLEAN Operation



Built-in Wi-Fi



Extended Piping

Performance Comparison – Daikin *ATMOSPHERA* to Daikin *AURORA*

- Daikin *ATMOSPHERA* units have:
 - Higher SEER (all sizes)
 - Higher HSPF (all sizes)
 - Similar rated capacities
 - Higher cooling capacity at 104F (12, 18, 24)
 - Higher max heating capacity at -13F (all sizes)



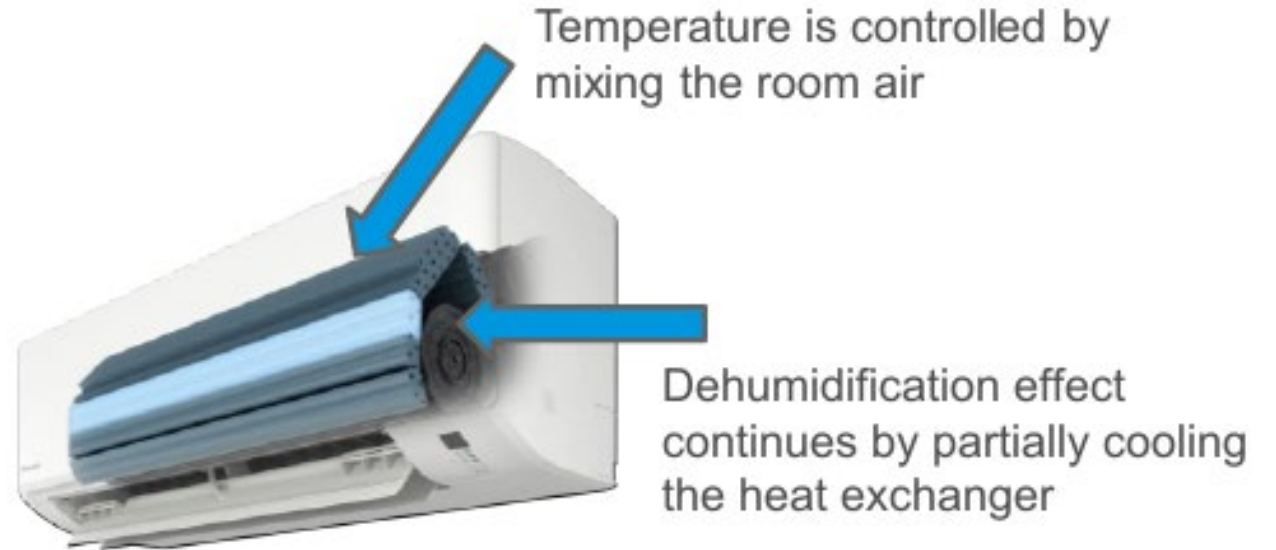
		Daikin <i>ATMOSPHERA</i>				Daikin <i>AURORA</i> R-410A Wall Mount			
		9	12	18	24	9	12	18	24
SEER		27.4	25.2	22.7	22	20	20	20.3	20
EER		16.3	13.2	12.5	12.5	12.5	12.5	12.5	12.5
HSPF		13.8	13	12.5	12.5	12.5	12	10.3	10.3
Capacity	Rated Cooling	9,000	12,000	18,000	21,600	9,000	10,600	18,000	21,200
	Rated Heating	11,000	13,600	21,600	24,000	10,900	13,400	21,600	24,000
	Cooling at 104F	9,000	11,500	18,000	20,600	9,000	10,120	17,160	20,210
	Heating at 5F Max	11,000	13,600	21,600	24,000	10,900	14,330	21,600	24,000
	Heating at -13F Max	10,000	10,700	16,200	18,000	6,630	8,720	15,120	16,420

Hybrid Cooling

- Controls humidity efficiently, even in low-cooling loads, and maintains dehumidification effect after the target temperature is reached
- In COOL mode, if more cooling is needed, more heat exchanger volume is activated



Normal Cooling



Temperature is controlled by mixing the room air

Dehumidification effect continues by partially cooling the heat exchanger

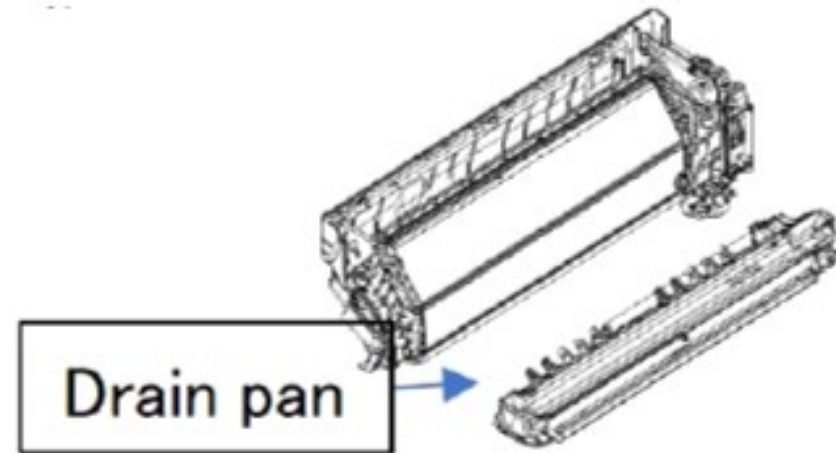
Hybrid Cooling

CLEAN Mode & Simplified Maintenance

- Dries the interior of the indoor unit to reduce the amount of condensation present.



- Detachable drain pan for easier cleaning



Daikin AURORA – Single Zone Wall Mount – R-32



NEW

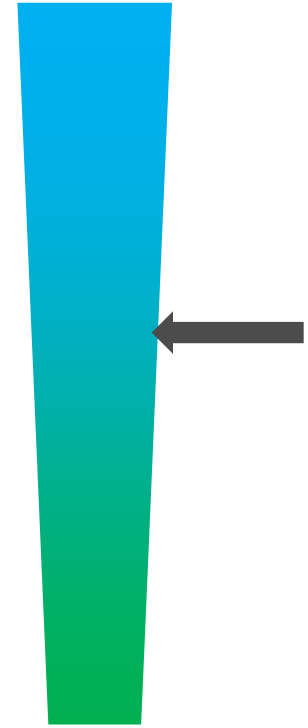


Now with WIFI



- **Up to 21 SEER2** vs up to 19.8 SEER2
- Up to **10.5 HSPF2** vs up to 10 HSPF2
- 9, 12, 15, **18, 24** kBtu
- Cold Climate Heat Pump
- 100% Heating at 5F
- Continuous Heating to -13F
- Easy access to Fan Motor and removable drain pan
- Optional Drain Pan Heater available
- Pre-charged for line-sets up to 49ft

High Cost



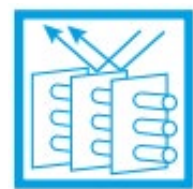
Low Cost



Powerful Mode



ECO+



Blue Fin Protection



Titanium Apatite Filter



- ### Applications
- Mid-level market
 - High performance for extreme weather environments
 - Primary Market – Residential
 - Spot Cooling/Heating

R32



Replenishment
Oct-Nov

Best



Primarily Cooling and Heating needs

★★★★ **High** <R32 ATMOS>
SEER 27-22 **NEW** WiFi - Std
Ultra-Low Heating
100%@5°F



Primarily Cooling needs

★★★★ **High** <R32 ATMOS>
SEER 27-22 Dehumidification
125°F Op Range **NEW** WiFi - Std





18K & 24: Sept.-Oct
09K: Oct-Nov
12K: Nov.

Better

★★★ **Mid** <R32 AURORA>
SEER 22-20 WiFi - Std
Low Ambient Heating
100%@5°F **NEW**



★★★ **Mid** <R32 OTERRA>
SEER 21 WiFi - Std
122°F Expanded range
Current : 115°F **NEW**



Available Now.

Good

★★ **Entry** <R32 OTERRA>
SEER 21 WiFi - Std
Mid-Low Ambient Heating
70%@17°F **NEW**



★ **Entry** <R32 ENTRA>
SEER 18
Cost Priority
Detachable Drain
DAMA

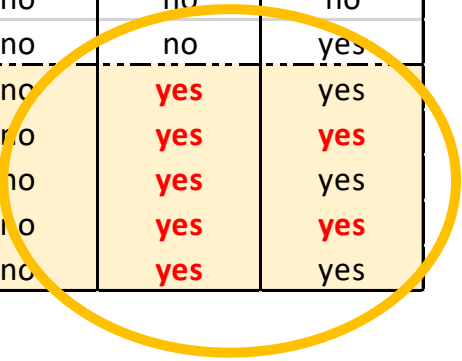
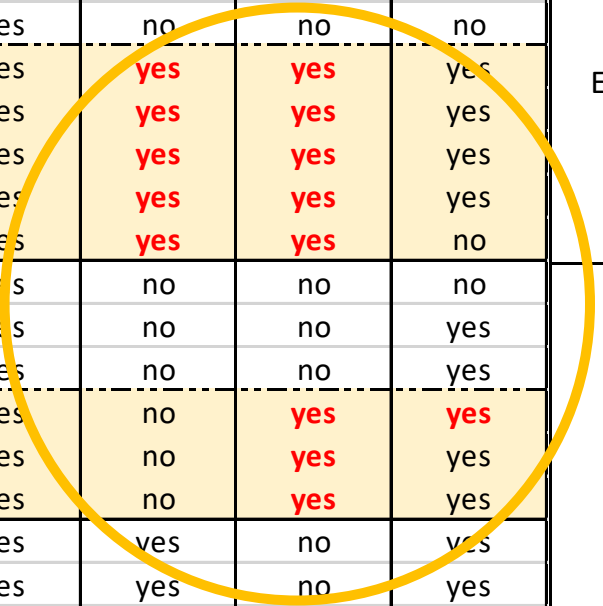


- All One-to-One Systems listed here are below the M1 level of 4 Lbs System Charge

Single Zone R-32 vs R-410A improvements coming

			NEEP	Energy Star		IRA North
				ASHP	CCASHP	
AURORA Wall	9	R410A	yes	no	no	yes
	12		yes	no	no	yes
	15		yes	no	no	yes
	18		yes	no	no	yes
	24		yes	no	no	no
	9	R32	yes	yes	yes	yes
	12		yes	yes	yes	yes
	15		yes	yes	yes	yes
18	yes		yes	yes	yes	
24	yes		yes	yes	no	
AURORA Duct	12	R410A	yes	no	no	no
	18		yes	no	no	yes
	24		yes	no	no	yes
	12	R32	yes	no	yes	yes
	18		yes	no	yes	yes
	24		yes	no	yes	yes
OTERRA Wall	9	R410A	yes	yes	no	yes
	12		yes	yes	no	yes
	18		yes	yes	no	yes
	24		yes	yes	no	no
	9	R32	yes	yes	no	yes
	12		yes	yes	no	yes
	18		yes	yes	no	yes
	24		yes	yes	no	no

				NEEP	Energy Star		IRA North
					ASHP	CCASHP	
ENTRA Wall	9	R410A	no	no	no	no	
	12		no	no	no	no	
	18		no	no	no	no	
	24		no	no	no	no	
	9		R32	yes	no	no	no
12	yes	no		no	no		
18	yes	no		no	no		
24	yes	no		no	no		
9	R410A	yes		no	no	yes	
12		yes	no	no	no		
15		yes	no	no	yes		
18		yes	no	no	no		
24		yes	no	no	yes		
FDMQ std	9	R32	yes	no	yes	yes	
	12		yes	no	yes	yes	
	15		yes	no	yes	yes	
	18		yes	no	yes	yes	
	24		yes	no	yes	yes	



Daikin POLARA – Single-Zone



Included Controller



Optional Controls



Low Ambient Cooling*



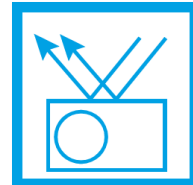
3-D Airflow



Intelligent Eye



Hot Start



Anti-Corrosion Coating

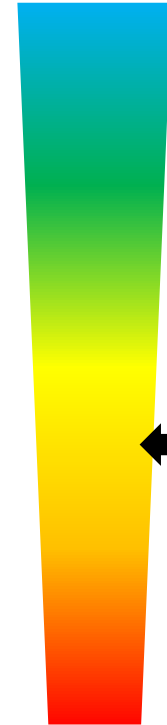
- Up to 17.5 SEER2, 7.5 HSPF2, 9.85 EER2
- 30, 36 kBtu
- Heat Pump and Cooling Only

Applications

- Mid-level market
- Low Ambient Cooling – cooling down to -22°F DB (cooling only model with air adjustment grille)
- Primary Market – Residential
- Spot Cooling/Heating

*Cooling only model. Requires field setting and installation of air adjustment grille (wind baffle)

High Cost

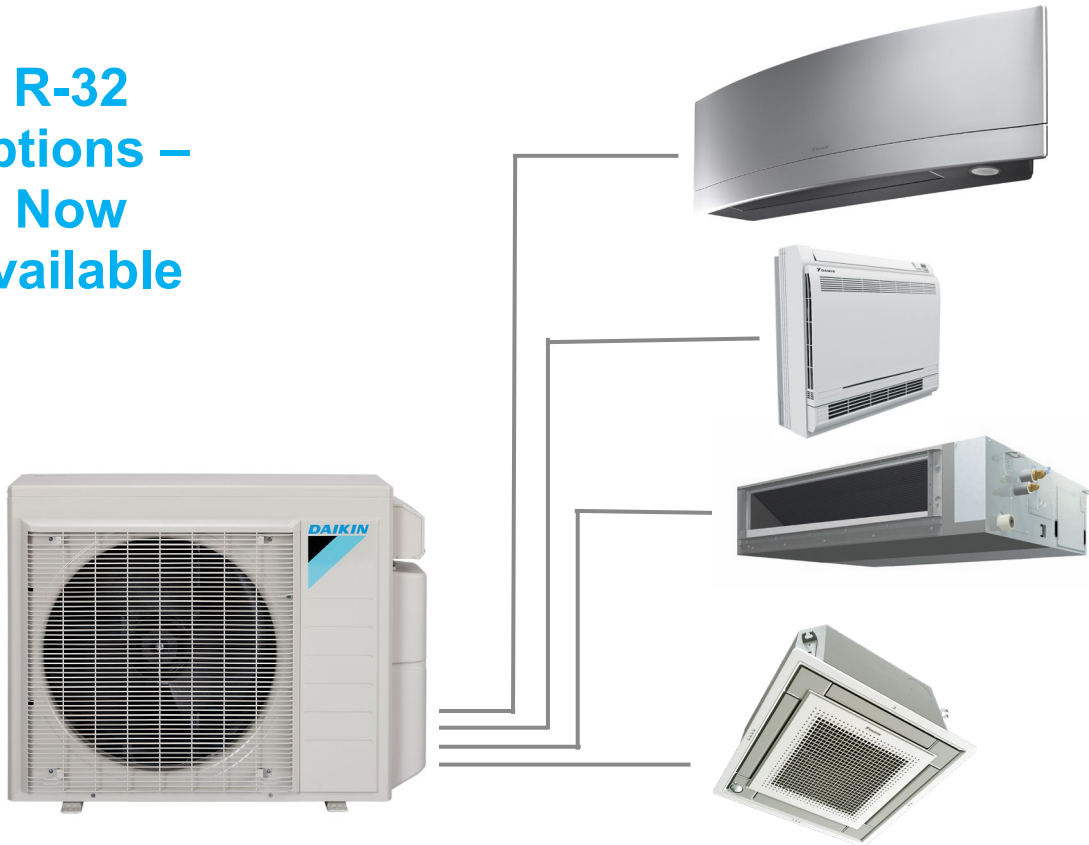


Low Cost



Multi-Zone Product

R-32
options –
Now
available

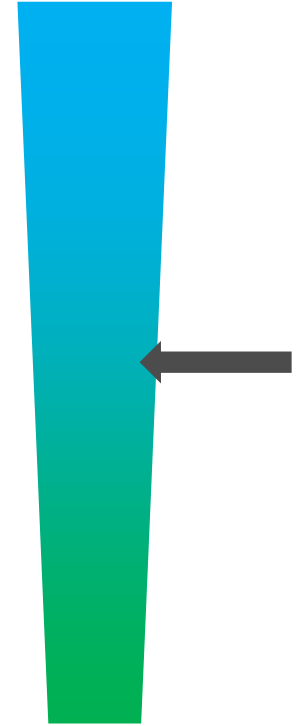


MX/MXM/MXS/MXT/MXL

Heat Pump Only

- An efficient alternative to zoning for the mid-level market
- **MXM** – up to 5 zones – **R-32**
- **MXS** – up to 5 zones
- **MXT** – Up to 5 Zones – **R-32**
- **MXL** – up to 4 zones
- **MX** - Daikin *CIRRA*- 2 zones
- Heat Pump Only

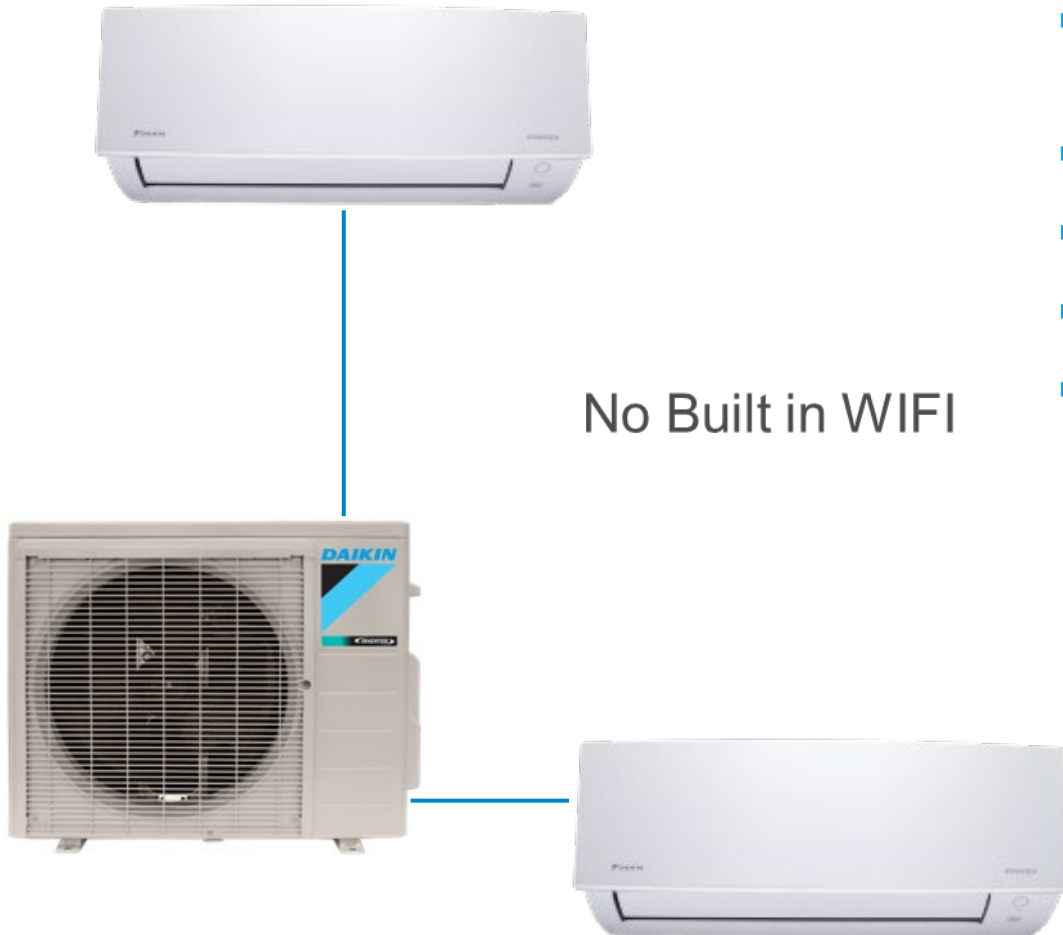
High Cost



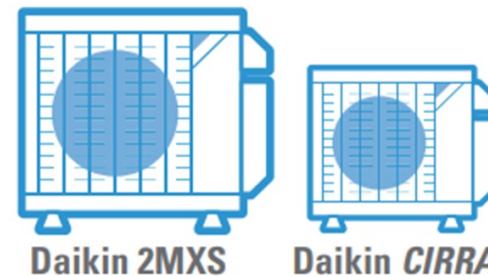
Low Cost

Daikin *CIRRA* Multi-Zone System

2-Port, Small Cabinet Multi-Zone System





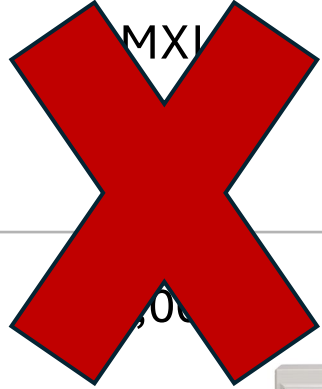
- Treat two trouble spots with a cost-effective, space saving system
- 17 SEER2, 9 HSPF2
- Wall-Mount IDU only; sizes 07, 09, 12
- Nominal Capacity: 18,000 Btu/h
- Connected Capacity: 24,000 Btu/h



OUTDOOR UNIT DIMENSIONS (HxWxD)	
Daikin <i>CIRRA</i>	21-11/16 x 26-1/2 x 11-3/16
Daikin 2MXS	28-15/16 x 34-1/4 x 12-5/8

Daikin AURORA - Multi-Zone Systems

	2 Zone	3 Zone	4 Zone
	2MXL	3MXL	4MXL
Nominal Capacity		24,000	36,000
Connected Capacity		39,000	48,000
			



Whole Home Solutions

- Up to 20 SEER2, 12.0 EER2, 9.7 HSPF2
- Up to 100% rated heating capacity @ 5°F WB
- Up to 100% rated cooling capacity @ 104°F DB

Example 1.5-Ton System (2MXL18 & 2 FTXS09's)

36k btu's Heating @ 43°F WB
19k btu's Heating @ 5°F WB
11.36k btu's Heating @ -13°F WB

24k btu's Cooling @ 95°F DB
22.88k btu's Cooling @ 104°F DB
20.11k btu's Cooling @ 115°F DB

Indoor Units

	FTXR Wall Mount 09,12,18
	FDMQ Ducted Concealed 09,12,15,18,24
	CTXS/FTXS Wall Mount 07,09,12,15,18,24
	FVXS Floor Mount 09,12,15,18
	FFQ 2'x2' Ceiling Cassette 09,12,15,18

Daikin AURORA - Multi-Zone Systems with R-32

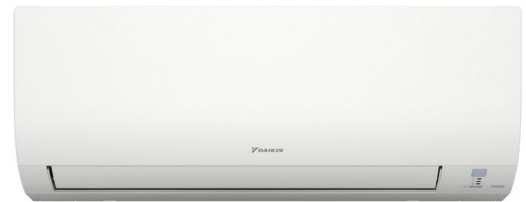
NEW

	2 Zone	2 Zone
	2MXT	2MXTH
Nominal Capacity	18,000	18,000
Connected Capacity	24,000	24,000



Indoor Unit

CTXV/FTXV Wall Mount
07,09,12,15,18,24



Built in WIFI



Whole Home Solutions

- 21 SEER2, 12.0 EER2, 10 HSPF2
- 100% rated heating capacity @ 5°F WB
- 100% rated cooling capacity @ 115°F DB

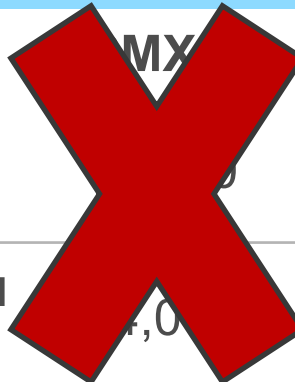
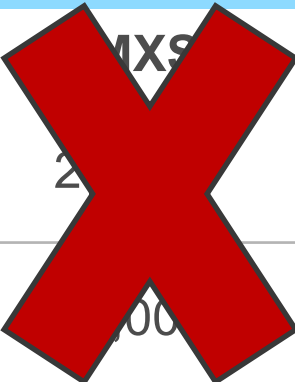
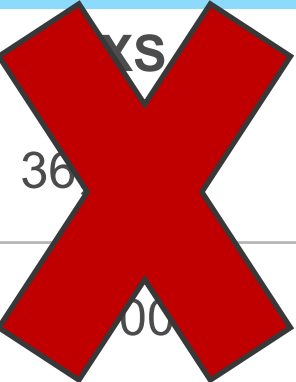
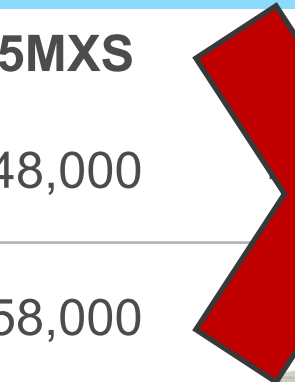




Example 1.5-Ton System (2MXT18 & 2 FTXV09's)

36k btu's Heating @ 43°F WB
20.6k btu's Heating @ 5°F WB
13.2k btu's Heating @ -13°F WB

24k btu's Cooling @ 95°F DB
22.88k btu's Cooling @ 104°F DB
19.62k btu's Cooling @ 115°F DB



MXS – Multi-Zone Systems

	2 Zone	3 Zone	4 Zone	5 Zone	8 Zone
Nominal Capacity	24,000	36,000	48,000	58,000	72,000
Connected Capacity	4,000	6,000	8,000	10,000	12,000
					
					

Indoor Units

	FTXR Wall Mount 09,12,18
	FDMQ Ducted Concealed* 09,12,15,18,24
	CTXS/FTXS Wall Mount 07,09,12,15,18,24
	FVXS Floor Mount 09,12,15,18
	FFQ 2'x2' Ceiling Cassette 09,12,15,18

Whole Home Solutions

- Up to 20.6 SEER2, 11.8 EER2, 9.7 HSPF2
- Multiple Styles - wall mounted, floor/low wall mount, slim duct and ceiling cassette
- Maximum Comfort and Control - up to 8 zones with individual control

*FDMQ-W not compatible with RMXS48

MXM – Multi-Zone Systems – R-32

NEW

Indoor Unit

CTXV/FTXV Wall Mount
07,09,12,15,18,24

	2 Zone	3 Zone	4 Zone
	2MXM	3MXM	4MXM
Nominal Capacity	18,000	24,000	36,000
Connected Capacity	24,000	39,000	48,000



Built in WIFI



Whole Home Solutions

- Up to 21 SEER2, 12 EER2, 10 HSPF2
- Wall Mount unit comes with built in WiFi
- Additional indoor styles coming in 2025
- 5 zone option coming in 2025



AURORA Multi-Zone with Factory Installed DPH

Capacity	Without Heater	With Heater
1.5-Ton	2MXT18AVJU9	2MXTH18AVJU9
2-Ton	3MXL24WMVJU9	3MXLH24WVJU9
3-Ton	4MXL36WVJU9	4MXLH36WVJU9

R-32

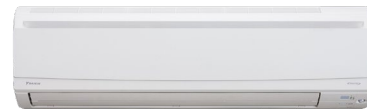
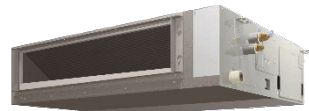
R-410A

R-410A



Both models available for markets that do or do not require pan heaters

Available Indoor Units:



Multi Zone R-32 vs R-410A improvements coming

AURORA Multi

Aurora			NEEP	Energy Star		IRA
				ASHP	CCASHP	North Canada
			Daikin	Daikin	Daikin	Daikin
2 port	R410A	Non-Ducted	yes	no	no	no
		Ducted	yes	no	no	no
		Mixed	yes	no	no	yes
	R32	Non-Ducted	yes	yes	yes	no
		Ducted	yes	no	no	no
		Mixed	yes	no	yes	yes
3 port (24k)	R410A	Non-Ducted	yes	no	no	yes
		Ducted	no	no	no	no
		Mixed	yes	no	no	yes
	R32	Non-Ducted	yes	yes	yes	yes
		Ducted	yes	no	yes	yes
		Mixed	yes	yes	yes	yes
4 port	R410A	Non-Ducted	yes	no	no	no
		Ducted	yes	no	no	no
		Mixed	yes	no	no	yes
	R32	Non-Ducted	yes	yes	yes	yes
		Ducted	yes	no	yes	no
		Mixed	yes	no	yes	yes
5 port	R410A	Non-Ducted	yes	no	no	no
		Ducted	yes	no	no	no
		Mixed	yes	no	no	no
	R32	Non-Ducted	yes	no	yes	yes
		Ducted	yes	no	yes	no
		Mixed	yes	no	yes	no

Standard Multi

Standard Multi			NEEP	Energy Star		IRA
				ASHP	CCASHP	North Canada
			Daikin	Daikin	Daikin	Daikin
2 port	R410A	Non-Ducted	yes	no	no	no
		Ducted	no	no	no	no
		Mixed	yes	no	no	yes
	R32	Non-Ducted	yes	yes	yes	yes
		Ducted	yes	no	no	no
		Mixed	yes	no	yes	yes
3 port (24k)	R410A	Non-Ducted	yes	no	no	yes
		Ducted	no	no	no	no
		Mixed	yes	no	no	yes
	R32	Non-Ducted	yes	yes	yes	yes
		Ducted	yes	no	yes	no
		Mixed	yes	no	yes	yes
4 port	R410A	Non-Ducted	yes	no	no	no
		Ducted	yes	no	no	no
		Mixed	yes	no	no	no
	R32	Non-Ducted	yes	no	yes	yes
		Ducted	yes	no	no	no
		Mixed	yes	no	no	no
5 port	R410A	Non-Ducted	yes	no	no	no
		Ducted	yes	no	no	no
		Mixed	yes	no	no	no
	R32	Non-Ducted	yes	no	yes	yes
		Ducted	yes	no	no	no
		Mixed	yes	no	yes	no

General A2L Safety Consideration

Indoor unit installation height (ft) Refrigerant amount (lb)	h (ft)					
	2.0	5.9	6.6	7.2	7.9	8.5
< 4.05	No restriction					
4.2	333	74	67	61	56	51
4.4	369	78	70	64	59	54
4.6	407	82	74	67	62	57
4.9	447	86	77	70	64	60
5.1	489	90	81	74	67	62
5.3	532	94	84	77	70	65
5.5	577	98	88	80	73	68
5.7	624	102	91	83	76	70
6.0	673	106	95	86	79	73
6.2	724	109	98	90	82	76
6.4	777	113	102	93	85	78
6.6	831	117	106	96	88	81
6.8	888	121	109	99	91	84
7.1	946	125	113	102	94	87
7.3	1006	129	116	106	97	89
7.5	1068	133	120	109	100	92
7.7	1131	137	123	112	103	95
7.9	1197	141	127	115	106	97
8.2	1264	145	130	118	108	100
8.4	1334	149	134	122	111	103
8.6	1405	156	137	125	114	106
8.8	1478	164	141	128	117	108
9.0	1553	173	144	131	120	111
9.3	1629	181	148	134	123	114
9.5	1708	190	154	138	126	116
9.7	1788	199	161	141	129	119

- The table below shows where you can and cannot install units for Multi.
 - Current Multi @ Max line lengths are below 7lb
- Table does not apply to Single zone AURORA
 - Because total charge is below 4.05lb
- Most rooms are **larger** than min space as outlined in the box.

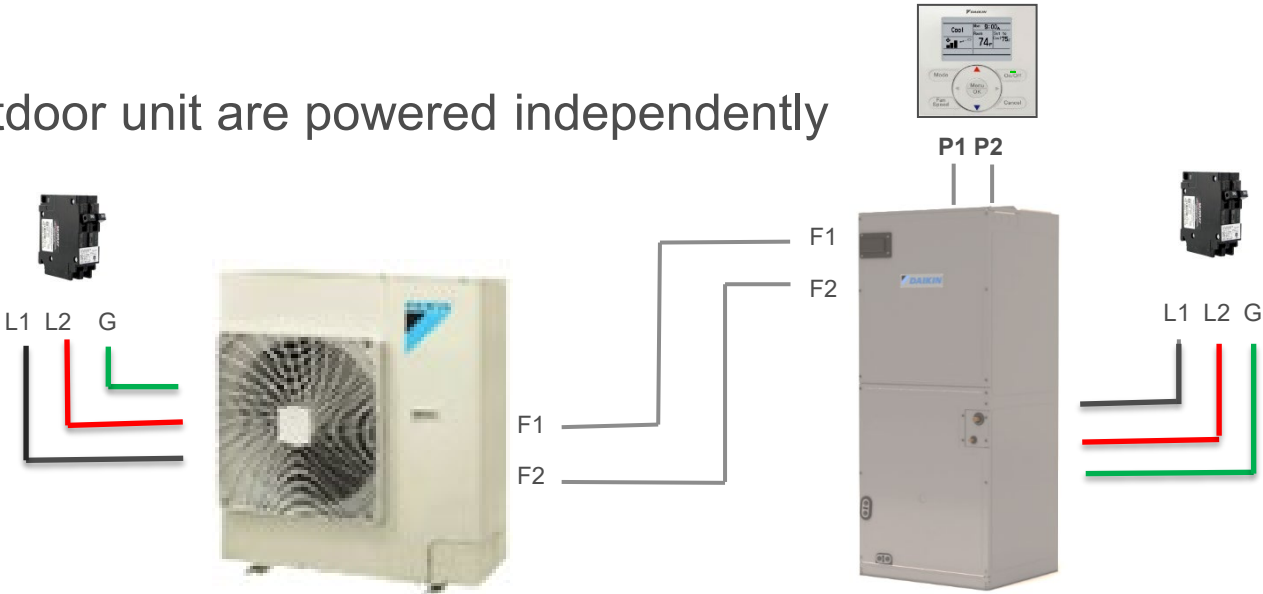
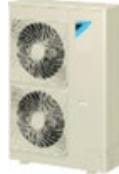


SkyAir Product

What is SkyAir?



- Larger capacity Single-Zone Systems with multiple indoor units to choose from
- Longer line set length capabilities:
 - Length up to 164 ft, for 1.5 -- 2.0 Ton Systems
 - Length up to 230 ft, for 2.5 – 4.0 Ton Systems
 - Height up to 98 ft. for all systems
- Heat Pump and Cooling Only Outdoor Units
 - **Cooling Only** systems do not meet DOE requirements for sales in the Southwest
- 2-wire system
 - Indoor unit & Outdoor unit are powered independently



RZR & RZQ Outdoor Unit



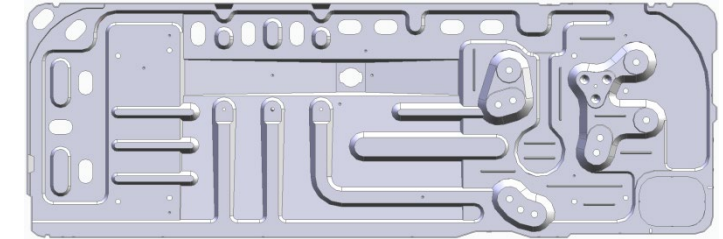
- Available from 1.5 – 4.0 tons, heat pump and cooling only
- High Heating Capacity with RZQ heat pump

100% heating capacity down to -4°F (-20°C) for RZQ18/24/30/36

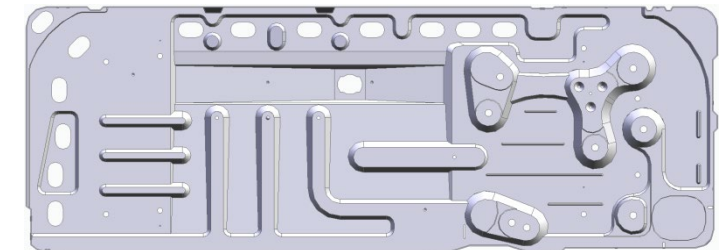
86% heating capacity down to -4°F (-20°C) for RZQ42

75% heating capacity down to -4°F (-20°C) for RZQ48

- Newly designed drain pan
 - More holes to help prevent condensate from freezing
- Variable Refrigerant Temperature Technology
 - Allows the system to dynamically change refrigerant temperatures
 - Designed to save energy and enhance overall occupancy comfort
 - Greatly improves part load efficiency by delivering a more appropriate part load capacity



Single fan drain pan



Double fan drain pan



