Customer Name	Buckley Associations, Inc.
Project Name	Heat Pump
Unit Tag	AHU
Created By	Yonghong
Date	May 16th, 2022
Ref Customer	
Project No	
Project Rev	0
Unit No	
Unit Rev	0

Model A-CIDX-350-1200 Weight & Dimensions

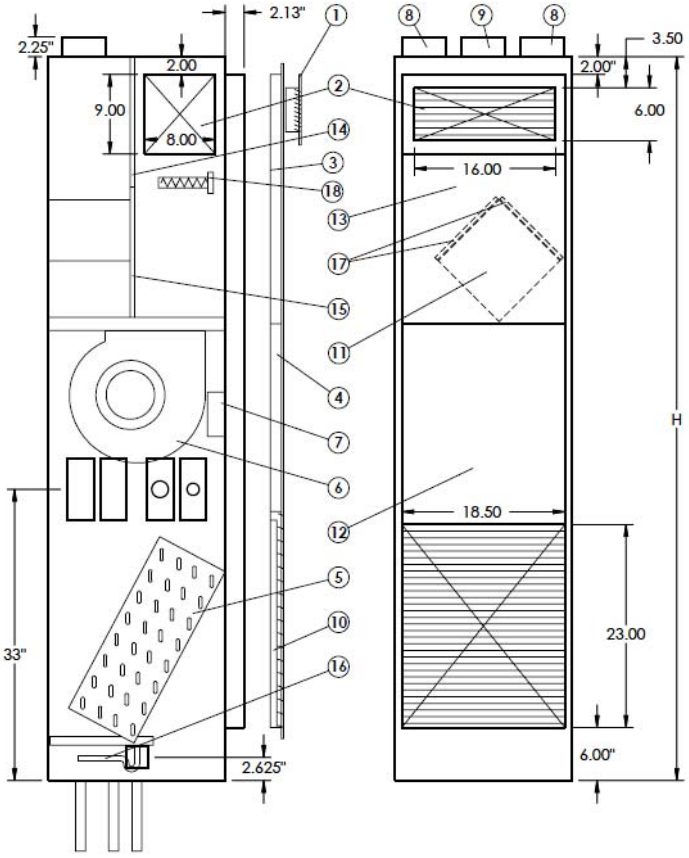
CLIMETEC INDUSTRIES INC

Heat Pump FANCOIL

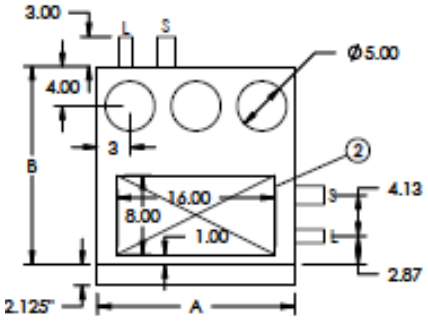
Model CIDX - 350~1200 : DX Cooling/Heating

CARRIER Ductless ASHP : 18,000btu ~ 48,000btu

1. Supply Air Grille
2. Optional Side, Front or Top Opening
3. Upper Access Panel
4. Lower Access Panel
5. DX Coil
6. Fan Motor
7. Electrical Box
8. Exhaust Air Intake/Discharge
9. Fresh Air Intake
10. Return Air Filter
11. Removable ERV/HRV Core
12. Inner Lower Access Panel
13. Inner Upper Access Panel
14. Motor Access Panel
15. ERV/HRV Core Access Panel
16. P-Trap
17. ERV/HRV Air Filter
18. Optional Auxilary Electric Heater up to 1.5kw@120v, 3.5kw@208v



Performance Range
Air Volume
Fan Coil - 350 to 1200 CFM @ 0.5 ESP
ERV - 50 to 120 CFM up to 1.0 ESP
Thermal Performance
Fan Coil – Nominal 0.75 to 3-ton
cooling Nominal 9 MBH to 36 MBH
heating Nominal 12MBH to 49 MBH



Construction

Cabinet

Cabinet type	Single-wall
Exterior Steel Gauge	18 ga galvanized steel
Access	Integrated return air access panel
Insulation	½”
Duct configuration	Vertical

INDOOR installation

Location	Freestanding on Floor

AHU Return Air Filter

Type	MERV 8
Quantity per circuit	1
Dimensions	24 x 20 x 1 in

ERV OA & RA Filters

Type	MERV 8
Quantity per circuit	1
Dimensions	9.5” x 9.25” X 0.375”

Recovery Core

Quantity	1
Type	Enthalpy Core ERV
Dimensions	10 x 10 x 9.5 in
Spacing	2.5 mm
Condensation pan	18 ga galvanized steel

Warranty

Core	5-year limited
Unit	2-year limited

Certification

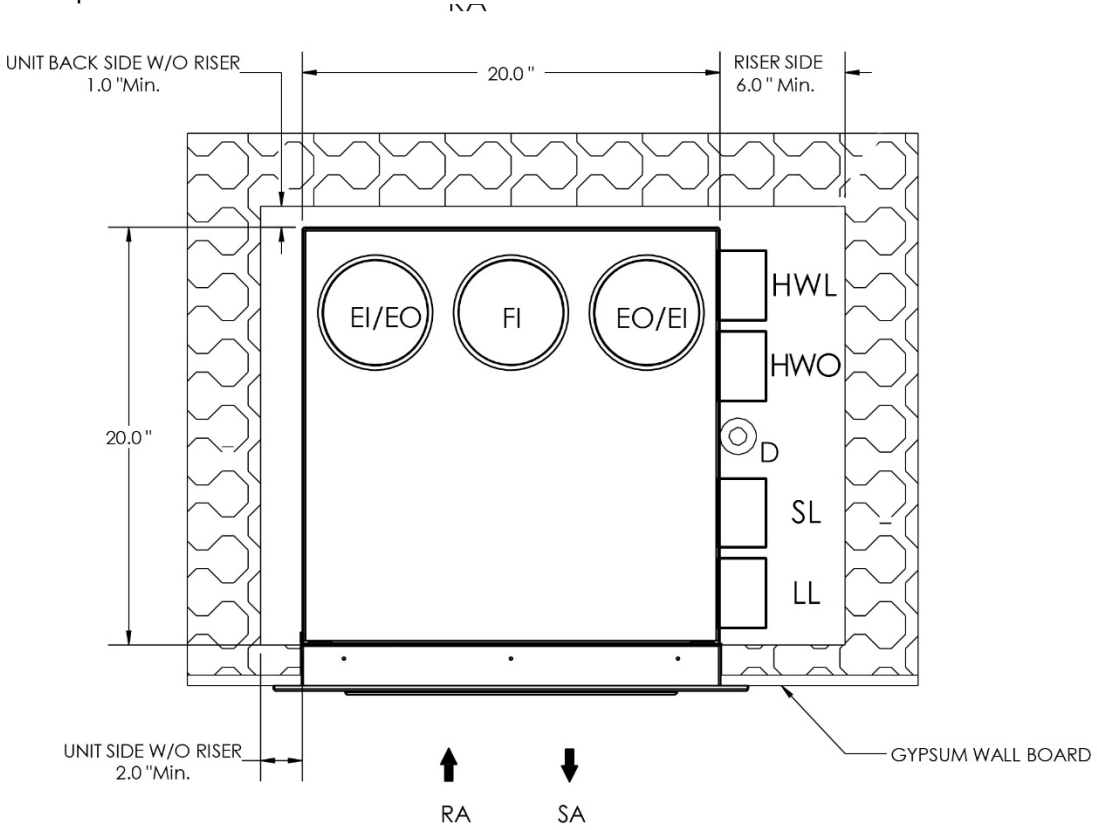
Intertek

CSA 22,2 No.236-11
UL 1995

Integral ERV Unit Enclosure

Note for the clearance:

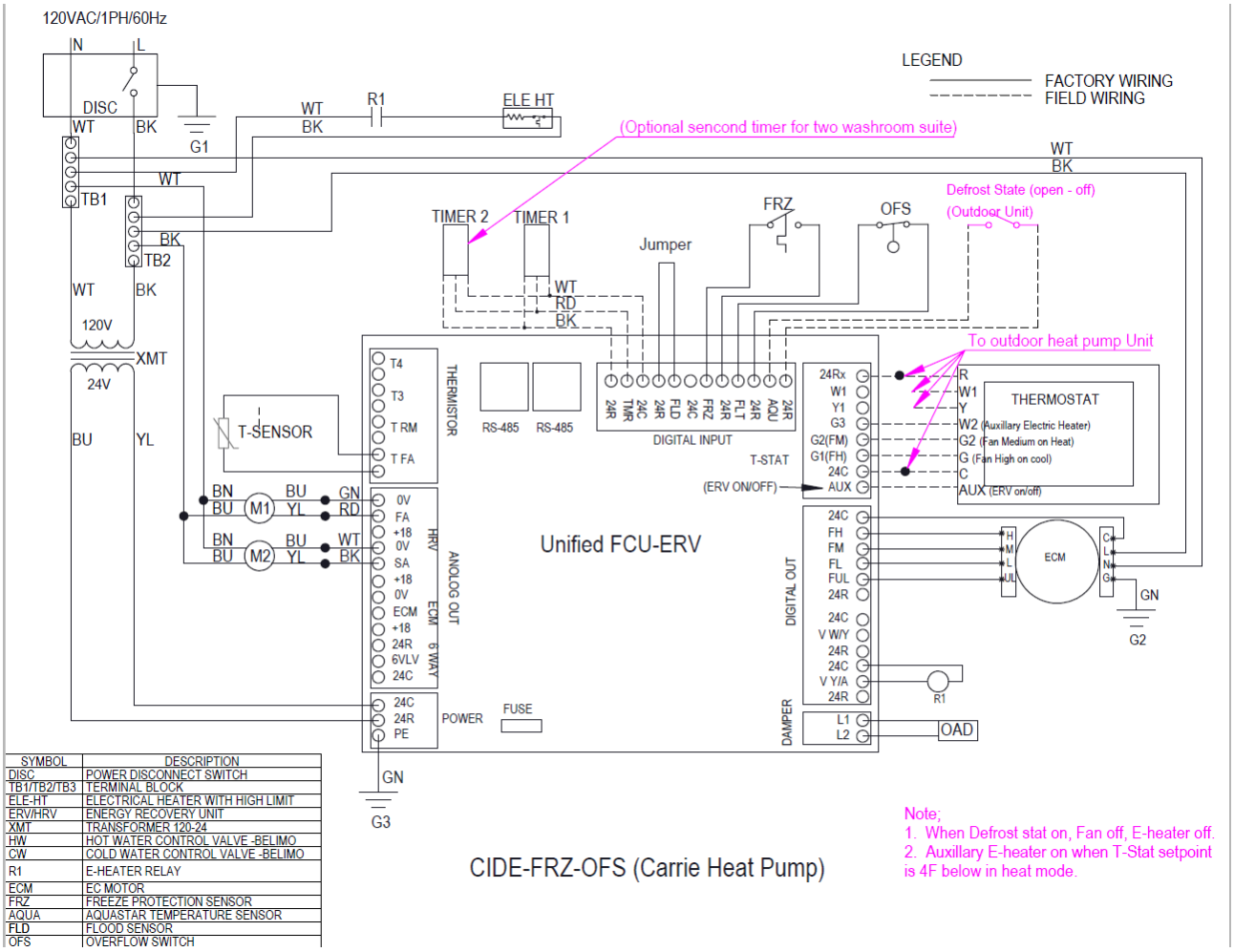
1. The connection side clearance = the maximum refrigerant line size + insulation + 1”. Applicable to Left/Right/Back side.
2. The unit side without connection clearance = 2” minimum. Applicable to Left/Right side.
3. The unit back side without connection clearance = 1” minimum as general. Applicable to Back side only.
4. The unit footprint is 20”x20”.



EXAMPLE - CLEARANCE
DIMENSIONS FOR ∅3" RETURN
RISER WITH 1" INSULATION

NOTE:
EI – EXHAUST AIR INTAKE FROM BATHROOM
FI – FRESH AIR INTAKE FROM OUTSIDE
EO – EXHAUST AIR TO OUTSIDE
SA – SUPPLY AIR
RA – RETURN AIR
SL – SUCTION LINE CONNECTION
LL – LIQUID LINE CONNECTION
D – CONDENSATE LINE
HWL – HOT WATER LINE
HWO – HOT WATER OUTLET

Electrical Configuration Diagram



SYMBOL	DESCRIPTION
DISC	POWER DISCONNECT SWITCH
TB1/TB2/TB3	TERMINAL BLOCK
ELE-HT	ELECTRICAL HEATER WITH HIGH LIMIT
ERV/HRV	ENERGY RECOVERY UNIT
XMT	TRANSFORMER 120-24
HW	HOT WATER CONTROL VALVE -BELIMO
CW	COLD WATER CONTROL VALVE -BELIMO
R1	E-HEATER RELAY
ECM	EC MOTOR
FRZ	FREEZE PROTECTION SENSOR
AQUA	AQUASTAR TEMPERATURE SENSOR
FLD	FLOOD SENSOR
OFS	OVERFLOW SWITCH

Electrical Load

AHU ECM Blower Motor (Model 350 to 800)

Power	0.25 HP
Motor's Voltage	120/1/60
FLA	2.6 A
Starter	ECM

AHU ECM Blower Motor (Model 1000 & 1200)

Power	0.33 HP
Motor's Voltage	120/1/60
FLA	4.2 A
Starter	ECM

ERV ECM Supply Motor

Power	0.1 HP
Motor's Voltage	120/1/60
FLA	0.8 A
Starter	ECM

ERV ECM Exhaust Motor

Power	0.1 HP
Motor's Voltage	120/1/60
FLA	0.8 A
Starter	ECM

Auxiliary Electric Heater	
Power	1.5 Kw
Voltage	120/1/60
FLA	12.5 A

Unit's main Voltage (Model 350 to 800)	
	Main Disc
Voltage	120/1/60
FLA	15.9 A
MCA	19.9 A
MOP	18 A
Breaker Size	20 A

Unit's main Voltage (Model 1000 to 1200)	
	Main Disc
Voltage	120/1/60
FLA	18.1 A
MCA	22.6 A
MOP	23 A
Breaker Size	30 A

AHU Controls and Components

Unit Controls

- The AHU control board controls fan motor speed, flow values.
- The system can monitor temperature as well as up to two inputs (24 volts).
- The device has an output for a single damper (logic 1/0)
- The control board allows the user to set the system parameters as well as restore the factory defaults without the use of any external programmer.
- Drain pan overflow protection control
- Anti-ice protection control
- Fan off defrost control coordinating with outdoor unit defrost state.

Components

- MERV 8 filters on RA: MERV 8 filter rack in the return air circuit.
- EC Motor on supply air motor: The fresh air motor is controlled by an EC Motor installed inside the unit and powered by the unit.
- DX Heat Pump Coil: 600 psi rated, without flow restrictor, with an access port. DX Cooling/Heating coil installed inside of the unit with connections at the side, c/w drain pan. All controls and condensation unit by others.
- Auxiliary Electric Heater: 1.5kw @ 120v/1ph/60hz.
- Closed cell flexible elastomeric foam insulation.
- Drain pan overflow switch.
- Disconnect: The unit will be equipped with a toggle disconnect.
- Vibration isolation pad.

Fan Coil Features

- Integrated ERV fan coil units, concealed.
- Outer case 18 ga. satin steel, 82" high cabinet.
- Fully lined with ½” EPDM elastomeric closed cell insulation with low moisture absorption and low vapor transmission, with smooth and durable surface.
- Unit mounted return air access panel with hinged doors and supply air grilles with appliance white finish.
- 4-speed 1/4 hp ECM motor or 1/3 hp ECM motor for above 800 CFM, painted steel, or galvanized fan housing.
- Constant ultra-low fan speed.
- Drain pan 18-gauge, galvanized steel with corrosion resistant powder coat finish and insulated below.

Sequence of Operations

- The Integrated Fan Coil Unit (FCU) will be controlled via a unit or wall mounted thermostat (both options by others). Typically, it is a 7-day programmable thermostat.
    - A temperature sensor within the TSTAT controller (by others) shall sense the actual space temperature and shall compare this with its preset set point and provide a call for cooling.
    - The ERV module will be controlled by the various control options.

Occupied / Unoccupied – Set Back		
Call for heating	**Call for cooling**	**No CALL from TSTAT - STAND BY**
SA FAN ON HIGH Outdoor Unit ON	SA FAN ON HIGH Outdoor Unit ON	SA FAN ON ULTRA LOW
ERV ON LOW	ERV ON LOW	ERV ON LOW

Note #1: *When the Bathroom timer (if applied) is set to 20 - 40 - 60 minutes the ERV/HRV Fan will run on HIGH speed for the time selected. After the time duration ERV/HRV Fan will switch back to LOW.*

Note #2: *an ERV on/off control is available in Climetec thermostat which can turn ERV off. When the ERV is off, the bathroom timer can still energize the exhaust fan for the time period.*

ERV Module

ERV Features

- Two constant airflow fans, one fresh air intake, another for exhaust
- Factory balanced ECM motors (1/10 HP)
- High speed regulates to 120 CFM
- Low speed between 50-75 CFM
- ERV washable core 10”x10”x9.5”
- 2 washable MERV 8 filters 9.5”x9.25”x3/8”
- Duct connections: 5” plastic duct connections
- Drain: Drain pan on bottom with 2-piece 3/8” OD drain connection
- The ERV Control Board functions with several modes of operation including a fan timer, thermostat input, standby, and defrost.

Frost control

- Defrost – Units are equipped with a fan defrost system; when the supply temperature is under 45° F (outdoor air temp below 23° F), the supply fan will shut down, the OUTSIDE air damper closes, and the exhaust fan keeps running. Defrost cycles are 20 minutes of normal operation followed by 5 minutes of defrost.
- Frost protection system – Units are equipped with a FROST PROTECTION system to prevent coil freeze issue in case of malfunction. A temperature sensor measures the supply air temperature. If the temperature gets below 32° F, an EMERGENCY DEFROST is instantaneously activated; the SUPPLY FAN will shut down and the OUTSIDE air damper will close for 90 minutes.

Exchanger Efficiency

EMR-250-236-260-CY-S

General Information

Model:	Residential, M-Series	**Elevation:**	0 Ft.	**Weight:**	2.51 lb
Frame Type:	Plastic, Coroplast Y Frame	**Pressure:**	1013 mbar	**Tag:**	

Design Conditions

	Summer		Winter		
	Outdoor	Return	Outdoor	Return	
Standard Airflow	50	50	50	50	CFM
Dry Bulb Temp	89	75	0	70	°F
Wet Bulb Temp	73.6	64.5	-0.5	58.9	°F
Relative Humidity	47.9	56.6	81.6	51.2	%

Product Dimensions

A-Width:	9.3	In.
B-Plate Size:	9.9	
C-Plate Spacing:	2.6	mm
D-Diagonal:	14	In.
G-Number of Sections:	1	

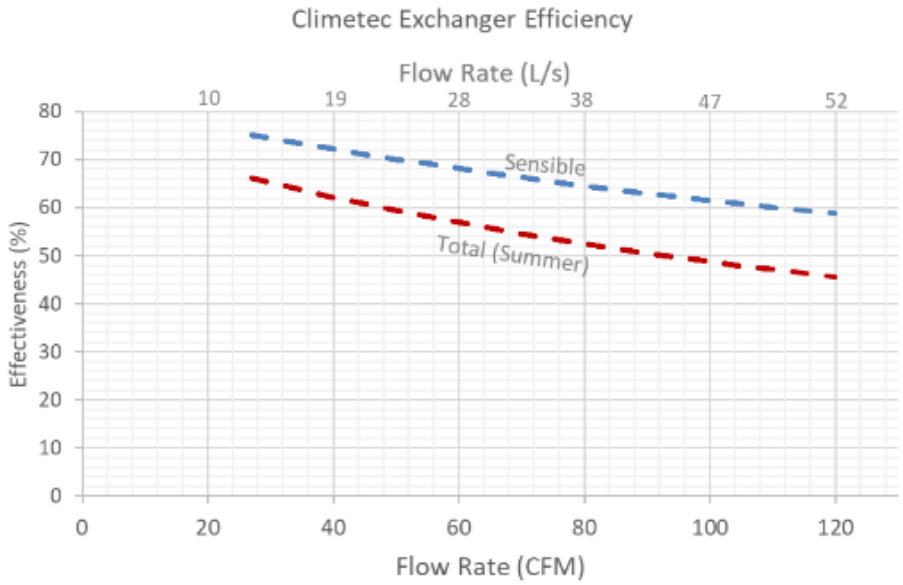
	Summer		Winter	
	Outdoor (OA)	Return (RA)	Outdoor (OA)	Return (RA)
Airflow CFM	50	50	50	50
Dry Bulb Temp °F	89	75	0	70
Wet Bulb Temp °F	73.6	64.5	-0.5	58.9
Enthalpy (H) BTU/lb	36.33	29.13	0.07	24.97
Moisture Ratio (MR) grains/lb	95	70.94	0.37	52.15
Energy (Q) Btuh	8335	6682	17	5728

	Exhaust (EA)	Supply (SA)	Exhaust (EA)	Supply (SA)
Airflow CFM	50	50	50	50
Dry Bulb Temp °F	84.8	79.2	21.5	49
Wet Bulb Temp °F	69.5	67.6	21.5	41.8
Enthalpy (H) BTU/lb	33.52	31.94	7.65	16.04
Moisture Ratio (MR) grains/lb	83.58	82.37	16.14	27.57
Energy (Q) Btuh	7689	7328	1755	3680

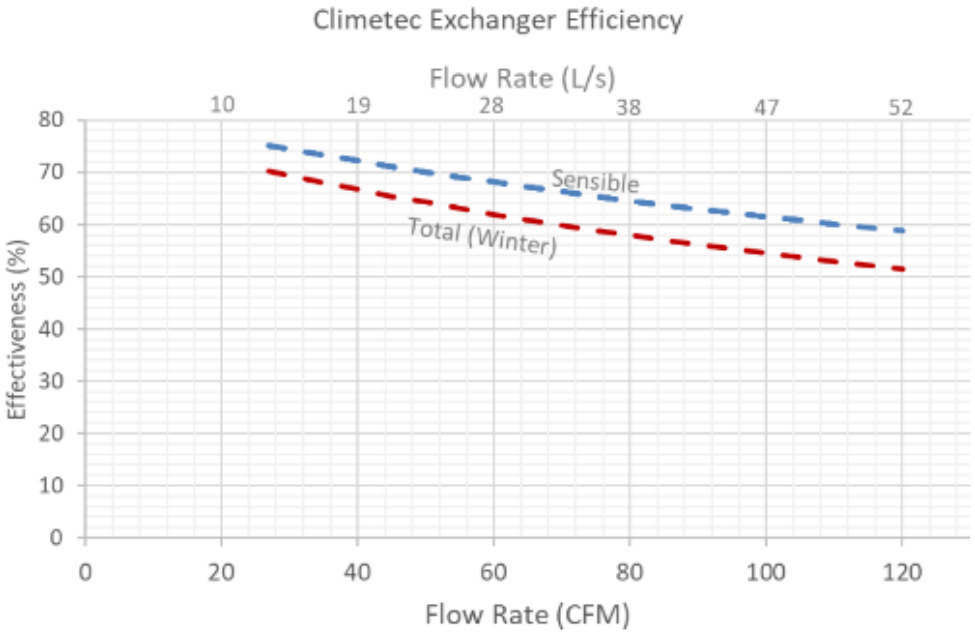
* Warning - Condensation may occur

	Summer	Winter
Supply pressure drop (PD) in.wg	0.1	0.1
Exhaust pressure drop (PD) in.wg	0.12	0.12
Sensible effectiveness %:	69.9	69.9
Latent effectiveness %:	52.5	52.5
Total effectiveness %:	60.9	64.1
Energy Recover Ratio %:	60.9	64.1
Supply air face velocity SFPM	79.94	79.94
Exhaust air face velocity SFPM	79.94	79.94
Moisture removed lb/h	0.41	0.89
Total energy saved Btuh	1007	3664
Energy balance %:	69.9	69.9
Water balance %:	52.5	52.5

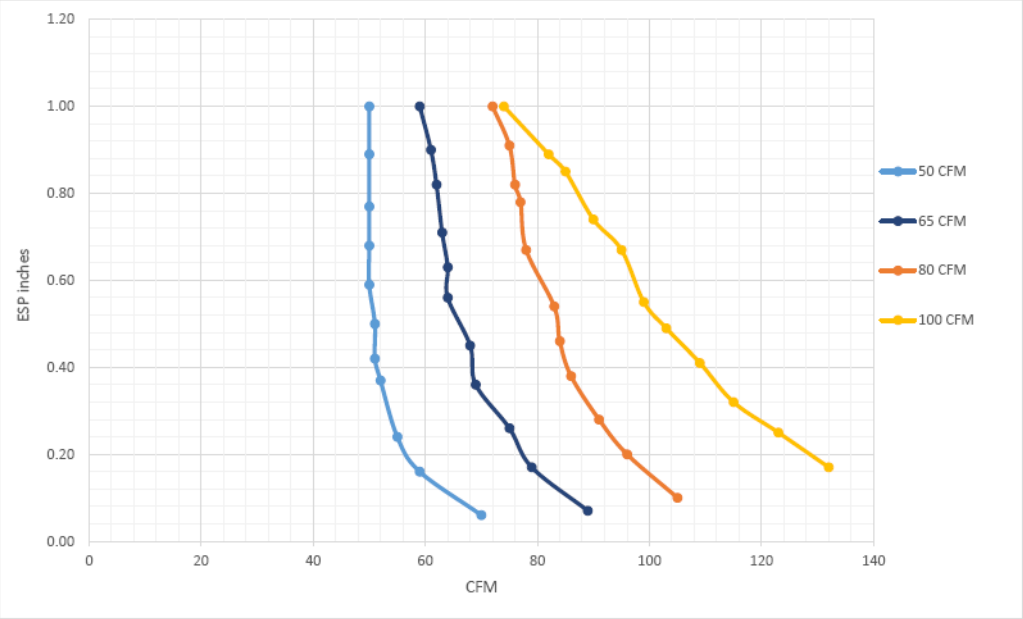
EMC-250-236-260-00-S



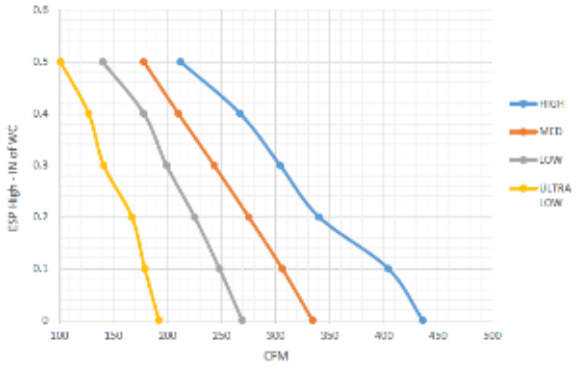
EMC-250-236-260-00-S



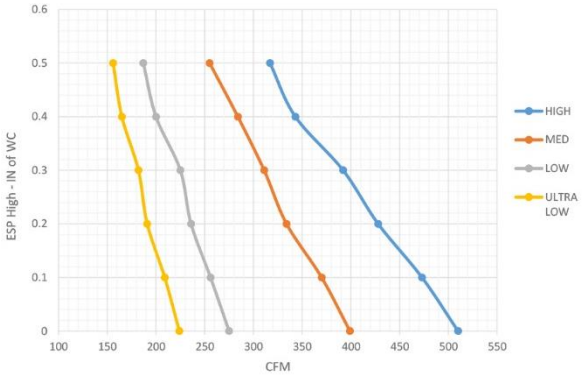
Performance Integral Thermal Recovery Fan Curves for ERV



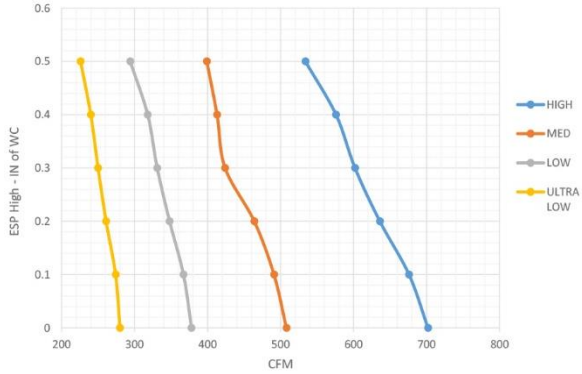
Airflow Details



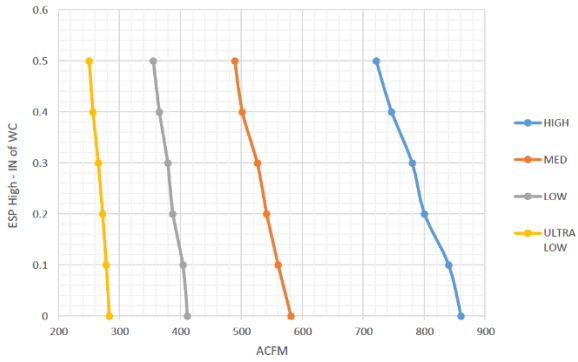
350 Unit Fan Curve



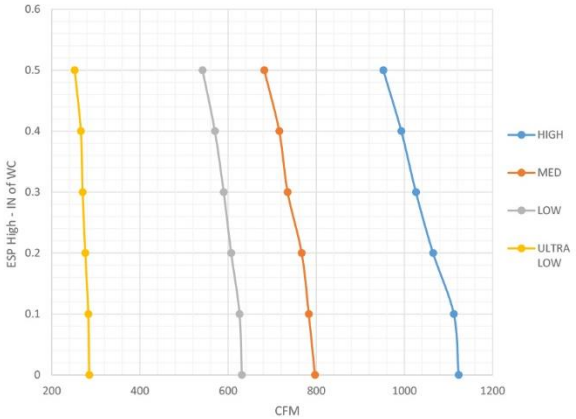
450 Unit Fan Curve



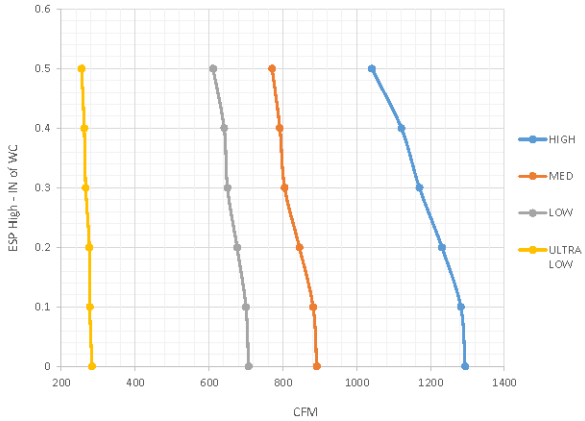
650 Unit Fan Curve



800 Unit Fan Curve



1000 Unit Fan Curve



1200 Unit Fan Curve

Coil Specifications

DX Cooling Coil Model A-CID-350

		Number of circuits	4
		Number of rows	3
		Fins per inch	12
Drain connection location	Side		
Connections location	Side		
Refrigerant	R410a	Entering Air dry bulb	78 °F
SuperHeat	10.0 °F	Entering Air wet bulb	65 °F
Liquid Temperature	105 °F		
Suction Temperature	42 °F	Leaving air dry bulb	52.6 °F
Refrigerant Pressure Drop	0.4 psi	LWB	52 °F
Refrigerant Mass Flow	193 Lb/H	Total Capacity	13,469 BTU/hr
Internal Volume	73.4 in^3	Sensible Capacity	9,303 BTU/hr

DX Heating Coil Model A-CID-350

		Number of circuits	4
		Number of rows	3
		Fins per inch	12
Drain connection location	Side		
Connections location	Side		
Refrigerant	R410a	Entering Air dry bulb	78 °F
SuperHeat	°F	Entering Air wet bulb	65 °F
Liquid Temperature	111 °F		
Suction Temperature	180 °F	Leaving air dry bulb	111.8 °F
Refrigerant Pressure Drop	0.4 psi		
Refrigerant Mass Flow	193 Lb/H	Total Capacity	12,776 BTU/hr
Internal Volume	73.4 in^3		

Outdoor Unit Single Zone Heat Pump Ductless System

Outdoor Model: **38MARBQ12AA3**

Carrier

Turn to the experts

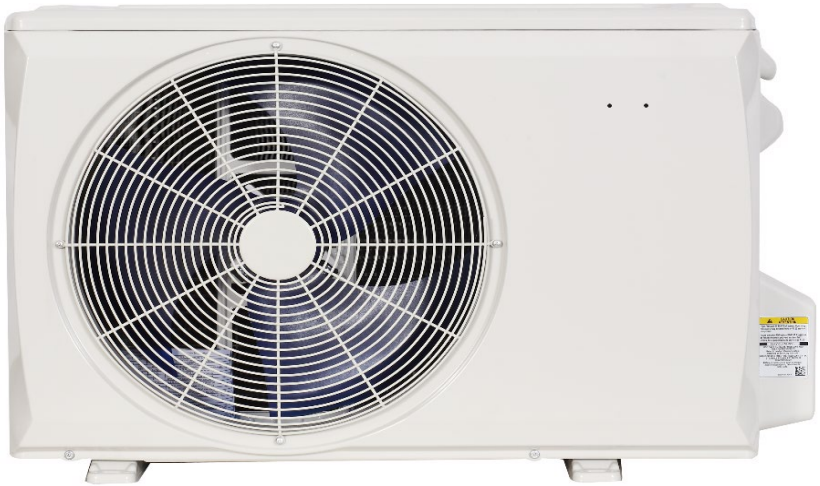
Submittal Data

Job Data: | Location:

Buyer: | Buyer P.O. #: | Carrier #:

Unit #: | Model #:

Performance Data Certified By: | Date:



STANDARD FEATURES

- Variable Speed (Inverter)
- Factory installed Base Pan Heater
- Factory installed Crankcase Heater
- Low Voltage Controls
- Auto-Restart function
- Condenser High Temp Protection
- Modes: Cool, Heat, Dry, Fan, Auto
- Quiet operation
- Anti-corrosive fin coating

LIMITED WARRANTY*
• 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years
*For residential applications.
See warranty for full details.

ENERGY STAR

NOTE: Images for illustration purposes only. Actual models may be slightly different.

System	Size		12
	Outdoor Model		38MARBQ12AA3
Electrical	Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60
	MCA	A.	15
	Recommended Fuse Size	A.	15
	MOCP - Fuse Rating	A.	15
Operating Range	Cooling Outdoor DB Min - Max	°F(°C)	-22~122 (-30~50)
	Heating Outdoor DB Min - Max	°F(°C)	-22~86 (-30~30)
Piping	Total Piping Length	ft (m)	82 (25)
	Piping Lift*	ft (m)	32 (10)
	Pipe Connection Size - Liquid	in (mm)	1/4 (6.35)
	Pipe Connection Size - Suction	in (mm)	1/2 (12.7)
Refrigerant	Refrigerant Type		R410A
	Metering Device		EEV
	Charge	lbs (kg)	2.6 (1.18)

Outdoor Coil	Face Area	Sq. Ft.	4.7
	No. Rows		2
	Fins per inch		20
	Circuits		4
Compressor	Type		Rotary Inverter
	Model		KTN110D42UFZ
	Oil Type		VG74
	Oil Charge	Fl. Oz.	11.8
	Rated Current	RLA	8.5
Outdoor	Unit Width	in (mm)	31.69 (805)
	Unit Height	in (mm)	21.81 (554)
	Unit Depth	in (mm)	12.99 (330)
	Net Weight	lbs (kg)	73.63 (33.4)
	Airflow	CFM	1,324
	Sound Pressure	dB(A)	56.0

* Condensing unit above or below indoor unit
See compatibility chart for additional model specific information

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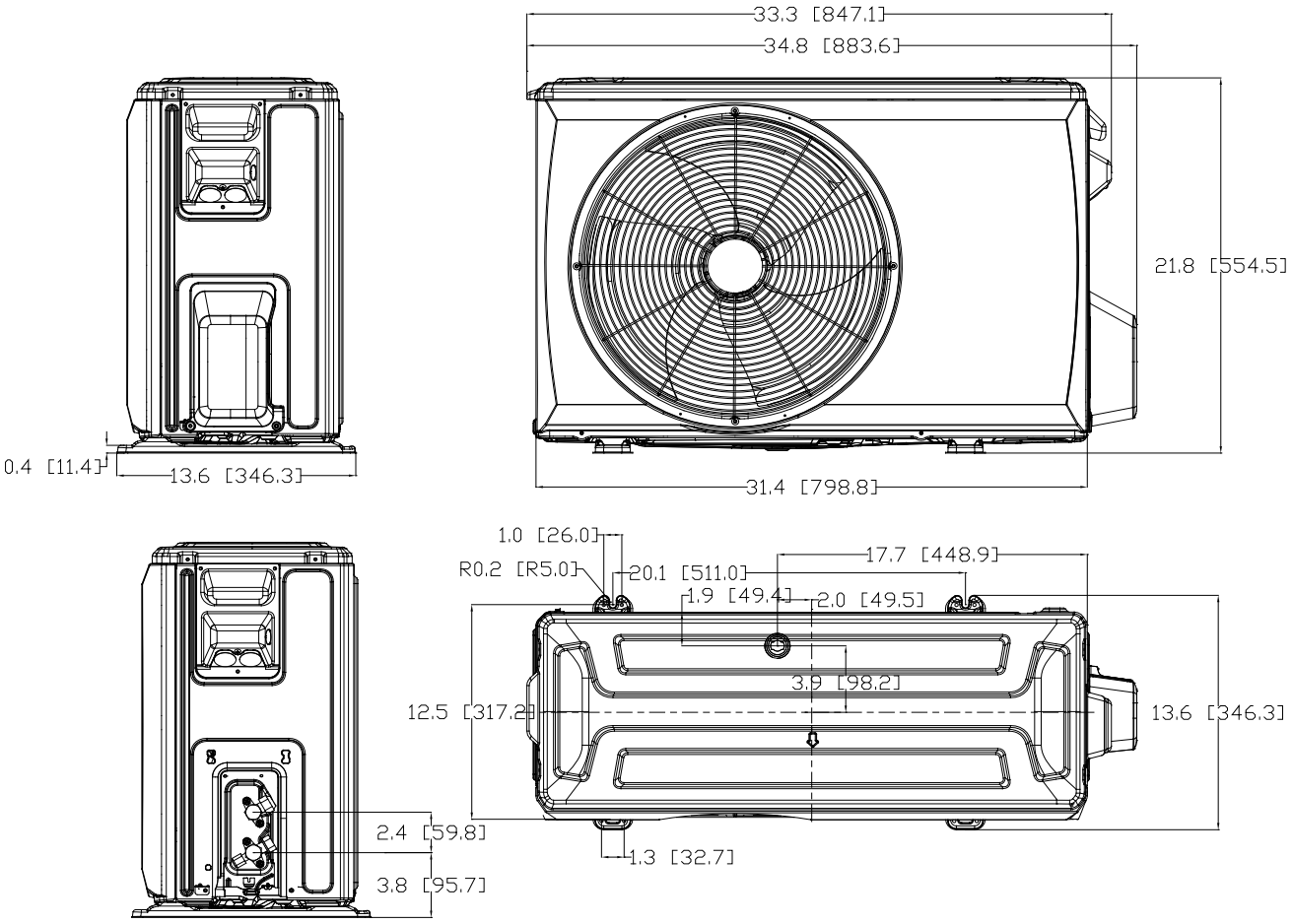
Edition Date: 07/2021

Catalog No: 38MARB-12-3-04SB

Construction View

Outdoor Model: **38MARBQ12AA3**



24V Interface Kit 2nd Generation
Ductless Systems

Model: KSAIC0301230 (208-230V)

Submittal Data

Job Data: _____ Location: _____

Buyer: _____ Buyer P.O. #: _____ Carrier #: _____

Unit Number: _____ Model Number: _____

Performance Data Certified By: _____ Date: _____

The 24V INTERFACE KIT 2nd Generation is used to connect:

- A **SINGLE ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **MULTI-ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **SINGLE ZONE** Ductless Condensing Unit with an approved Fan Coil/Furnace/Cased Coil and a third party single stage conventional thermostat (sold separately) allowing up to 3 different fan speeds on the indoor unit.

Features

- **AUTO Fan speed** on Single Zone and Multi-zone on Ductless applications
- **Up to 3 Fan speeds** on Single Zone Ductless Outdoor matched with Multi-family Fan Coils, Furnace/Cased Coils applications.
- One 24V INTERFACE KIT per indoor head
- Keeps the Inverter Compressor operating as a Variable Speed System
- Rated for outdoor and indoor mounting
- Dry mode contact for active dehumidification control
- Remote ON/OFF contact
- Auxiliary Heat control through the thermostat
- Diagnostic code display LEDs
- 208/230V Transformer Built-in

Parts included

- o 24V INTERFACE Control Box
- o Installation manual
- o Wall anchors
- o Screws M4X20mm
- o •16.4ft. (5m) Return Air Thermistor Assembly required and installed near or on the unit and on the air inlet side

Accessories, Sold Separately

☐ 115V transformer RCD# 11203103000393, used only on ductless systems with 115V power.

☐ Piping Adaptor Kit RCD# 331831-701, used ONLY on Multifamily applications with the FMA4, FMC and FMU fan coils to facilitate piping installation when removing the TXV kit from the indoor unit

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Edition Date: 03/19 Catalog No: SUB-KSAIC0301230-01

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.
Replaces: NEW

ESC Pro SMART THERMOSTAT

Pleasant user experience

Personalize your time schedule

Achieve all day comfort

Improved programming function and visual appearance

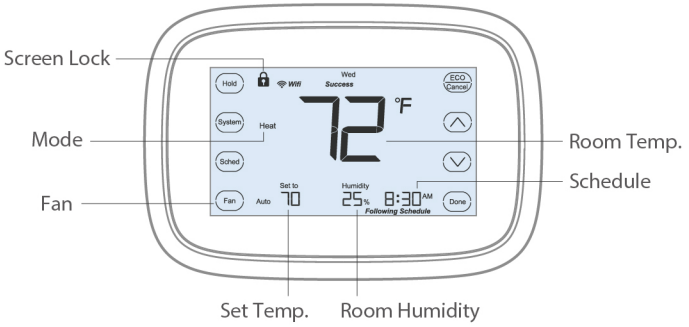
Smooth lines and natural curves

Key Features

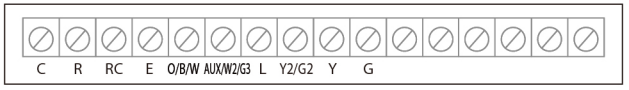
- Up to 2heat/2cool
- Humidity sensor
- ECO mode saving energy
- 802.11 b/g/n Wi-Fi connection @ 2.4GHz
- 7-Day programmable with auto changeover
- 3 Fan speeds For High Rise Fancoil
- Keypad lock
- Pre-cooling/heating
- Compressor protection
- 24VAC power (C-wire required)
- 158x109x26mm(LxWxH)
- Auxiliary ERV/HRV On/Off control
- Compatible with gas/oil/electric boiler, furnace, heat pump, air-conditioning， High Rise Fancoil

Smart Thermostat | Big LCD | Touch Screen | Wi-Fi | Universal Compatibility | Smartphone Control

User Interface



Teminal Block



Works with amazon alexa

Works with Google Home

Powered by tuya Intelligence Inside

Download on the App Store

GET IT ON Google Play

CLimetec Manufacturing Ltd. 161 Milani Blvd. Woodbridge, Ontario, L4H4M4, Canada
Phone: (905)-660-0700

Coil Specifications

DX Cooling Coil Model A-CID-450

		Number of circuits	4
		Number of rows	3
		Fins per inch	12
Drain connection location	Side		
Connections location	Side		
Refrigerant	R410a	Entering Air dry bulb	78 °F
SuperHeat	10.0 °F	Entering Air wet bulb	65 °F
Liquid Temperature	105 °F		
Suction Temperature	42 °F	Leaving air dry bulb	53.9 °F
Refrigerant Pressure Drop	0.5 psi	LWB	53°F
Refrigerant Mass Flow	233 Lb/H	Total Capacity	16,283 BTU/hr
Internal Volume	73.4 in^3	Sensible Capacity	11,353 BTU/hr

DX Heating Coil Model A-CID-450

		Number of circuits	4
		Number of rows	3
		Fins per inch	12
Drain connection location	Side		
Connections location	Side		
Refrigerant	R410a	Entering Air dry bulb	78 °F
SuperHeat	°F	Entering Air wet bulb	65 °F
Liquid Temperature	111 °F		
Suction Temperature	180 °F	Leaving air dry bulb	111.8 °F
Refrigerant Pressure Drop	0.5 psi		
Refrigerant Mass Flow	233 Lb/H	Total Capacity	16,427 BTU/hr
Internal Volume	73.4 in^3		

Outdoor Unit Single Zone Heat Pump Ductless System

Outdoor Model: 38MARBQ18AA3

Carrier

Submittal Data

Turn to the experts

Job Data:		Location:	
Buyer:		Buyer P.O. #:	
Carrier #:			
Unit Number:		Model Number:	
Performance Data Certified By:		Date:	

STANDARD FEATURES

- Variable Speed (Inverter)
- Factory installed Base Pan Heater
- Factory installed Crankcase Heater
- Low Voltage Controls
- Auto-Restart function
- Condenser High Temp Protection
- Modes: Cool, Heat, Dry, Fan, Auto
- Quiet operation
- Anti-corrosive fin coating

LIMITED WARRANTY*
• 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years
*For residential applications.
See warranty for full details.

ENERGY STAR

NOTE: Images for illustration purposes only. Actual models may be slightly different.

System	Size		18
	Outdoor Model		38MARBQ18AA3
Electrical	Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60
	MCA	A.	16
	Recommended Fuse Size	A.	20
	MOCP - Fuse Rating	A.	25
Operating Range	Cooling Outdoor DB Min - Max	°F(°C)	-22~122 (-30~50)
	Heating Outdoor DB Min - Max	°F(°C)	-22~86 (-30~30)
Piping	Total Piping Length	ft (m)	98 (30)
	Piping Lift*	ft (m)	65 (20)
	Pipe Connection Size - Liquid	in (mm)	1/4 (6.35)
	Pipe Connection Size - Suction	in (mm)	1/2 (12.7)
Refrigerant	Refrigerant Type		R410A
	Metering Device		EEV
	Charge	lbs (kg)	4.08 (1.85)

Outdoor Coil	Face Area	Sq. Ft.	5.9
	No. Rows		2
	Fins per inch		20
	Circuits		6
Compressor	Type		Rotary Inverter
	Model		KTM240D43UKT
	Oil Type		VG74
	Oil Charge	Fl. Oz.	21.0
	Rated Current	RLA	14.3
Outdoor	Unit Width	in (mm)	35.04 (890)
	Unit Height	in (mm)	26.50 (673)
	Unit Depth	in (mm)	13.46 (342)
	Net Weight	lbs (kg)	100.97 (45.8)
	Airflow	CFM	1,765
	Sound Pressure	dB(A)	59.0

* Condensing unit above or below indoor unit
See compatibility chart for additional model specific information

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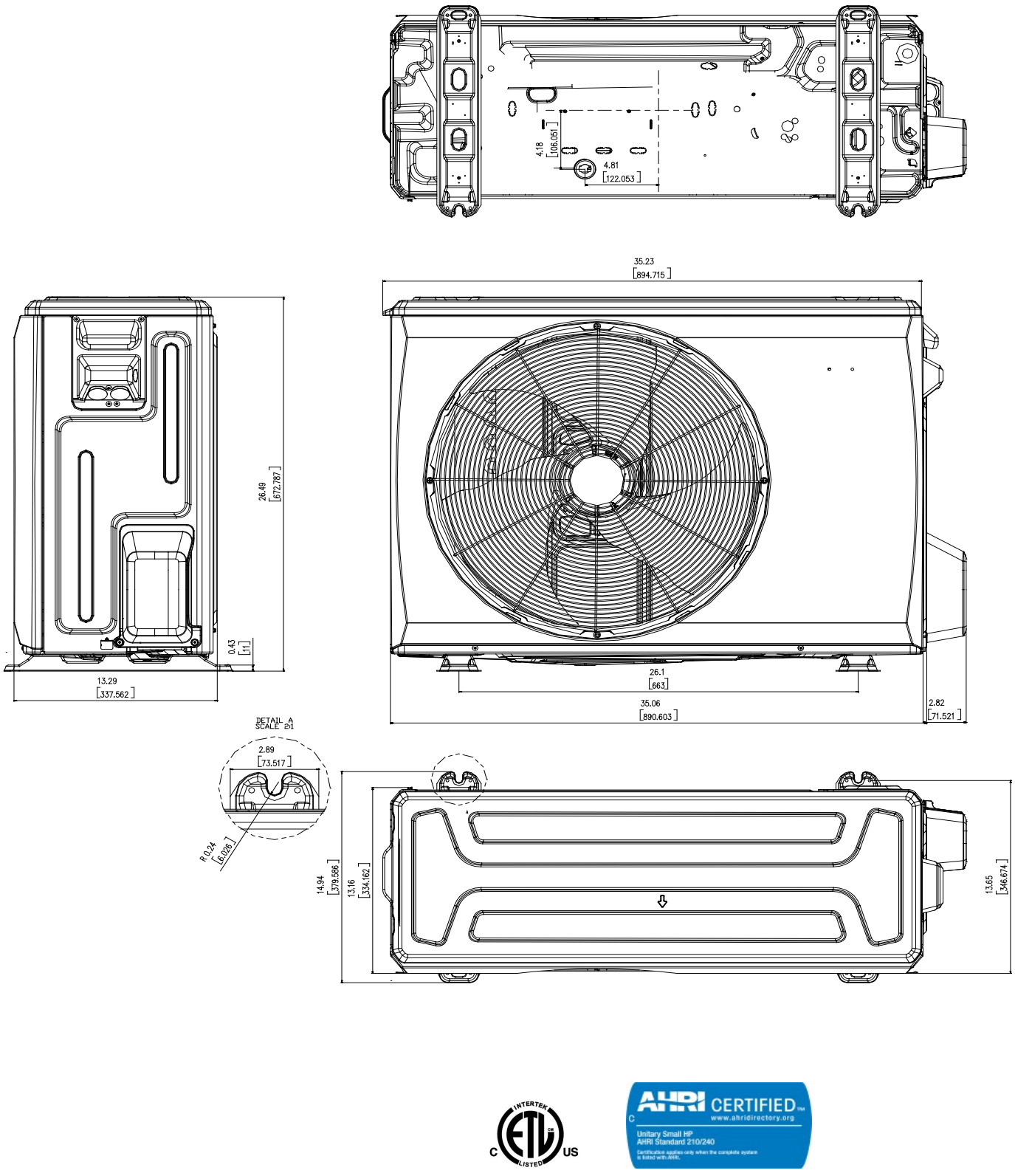
Edition Date: 01/2022

Catalog No: 38MARB-18-3-04SB

Construction View

Outdoor Model: **38MARBQ18AA3**



24V Interface Kit 2nd Generation
Ductless Systems

Model: KSAIC0301230 (208-230V)

Submittal Data

Job Data: _____ Location: _____

Buyer: _____ Buyer P.O. #: _____ Carrier #: _____

Unit Number: _____ Model Number: _____

Performance Data Certified By: _____ Date: _____

The 24V INTERFACE KIT 2nd Generation is used to connect:

- A **SINGLE ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **MULTI-ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **SINGLE ZONE** Ductless Condensing Unit with an approved Fan Coil/Furnace/Cased Coil and a third party single stage conventional thermostat (sold separately) allowing up to 3 different fan speeds on the indoor unit.

Features

- **AUTO Fan speed** on Single Zone and Multi-zone on Ductless applications
- **Up to 3 Fan speeds** on Single Zone Ductless Outdoor matched with Multi-family Fan Coils, Furnace/Cased Coils applications.
- One 24V INTERFACE KIT per indoor head
- Keeps the Inverter Compressor operating as a Variable Speed System
- Rated for outdoor and indoor mounting
- Dry mode contact for active dehumidification control
- Remote ON/OFF contact
- Auxiliary Heat control through the thermostat
- Diagnostic code display LEDs
- 208/230V Transformer Built-in

Parts included

- o 24V INTERFACE Control Box
- o Installation manual
- o Wall anchors
- o Screws M4X20mm
- o •16.4ft. (5m) Return Air Thermistor Assembly required and installed near or on the unit and on the air inlet side

Accessories, Sold Separately

☐ 115V transformer RCD# 11203103000393, used only on ductless systems with 115V power.

☐ Piping Adaptor Kit RCD# 331831-701, used ONLY on Multifamily applications with the FMA4, FMC and FMU fan coils to facilitate piping installation when removing the TXV kit from the indoor unit

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Edition Date: 03/19 Catalog No: SUB-KSAIC0301230-01

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Replaces: NEW

ESC Pro SMART THERMOSTAT

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Improved programming function and visual appearance

Smooth lines and natural curves

Key Features

- Up to 2heat/2cool
- Humidity sensor
- ECO mode saving energy
- 802.11 b/g/n Wi-Fi connection @ 2.4GHz
- 7-Day programmable with auto changeover
- 3 Fan speeds For High Rise Fancoil
- Keypad lock
- Pre-cooling/heating
- Compressor protection
- 24VAC power (C-wire required)
- 158x109x26mm(LxWxH)
- Auxiliary ERV/HRV On/Off control
- Compatible with gas/oil/electric boiler, furnace, heat pump, air-conditioning， High Rise Fancoil

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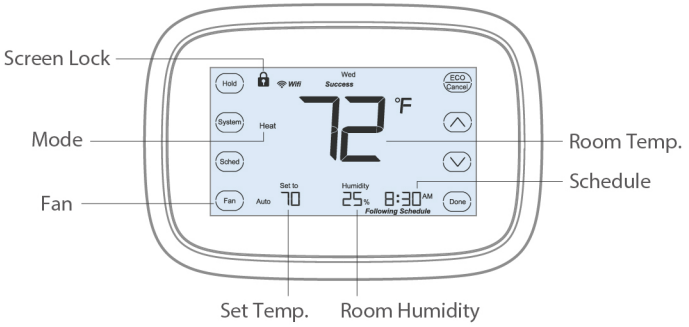
User Interface



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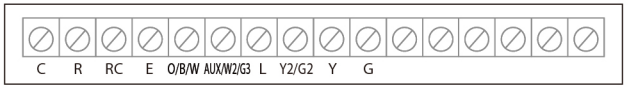

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Phone: (905)-660-0700

Coil Specifications

DX Cooling Coil Model A-CID-650

		Number of circuits	4
		Number of rows	3
		Fins per inch	12
Drain connection location	Side		
Connections location	Side		
Refrigerant	R410a	Entering Air dry bulb	78 °F
SuperHeat	10.0 °F	Entering Air wet bulb	65 °F
Liquid Temperature	105 °F		
Suction Temperature	42 °F	Leaving air dry bulb	54.2 °F
Refrigerant Pressure Drop	1.0 psi	LWB	53.5 °F
Refrigerant Mass Flow	333.2 Lb/H	Total Capacity	23,246 BTU/hr
Internal Volume	86.1 in^3	Sensible Capacity	16,178 BTU/hr

DX Heating Coil Model A-CID-650

		Number of circuits	4
		Number of rows	3
		Fins per inch	12
Drain connection location	Side		
Connections location	Side		
Refrigerant	R410a	Entering Air dry bulb	78 °F
SuperHeat	°F	Entering Air wet bulb	65 °F
Liquid Temperature	111 °F		
Suction Temperature	180 °F	Leaving air dry bulb	111.8 °F
Refrigerant Pressure Drop	1.0 psi		
Refrigerant Mass Flow	333.2 Lb/H	Total Capacity	26,309 BTU/hr
Internal Volume	86.1 in^3		

Outdoor Unit Single Zone Heat Pump Ductless System

Outdoor Model: **38MARBQ24AA3**

Submittal Data

Turn to the experts

Job Data:		Location:	
Buyer:		Buyer P.O. #:	
Carrier #:			
Unit Number:		Model Number:	
Performance Data Certified By:		Date:	

STANDARD FEATURES

- Variable Speed (Inverter)
- Factory installed Base Pan Heater
- Factory installed Crankcase Heater
- Low Voltage Controls
- Auto-Restart function
- Condenser High Temp Protection
- Modes: Cool, Heat, Dry, Fan, Auto
- Quiet operation
- Anti-corrosive fin coating

LIMITED WARRANTY*
- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years

*For residential applications.
See warranty for full details.

ENERGY STAR

NOTE: Images for illustration purposes only. Actual models may be slightly different.

System	Size		24
	Outdoor Model		38MARBQ24AA3
Electrical	Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60
	MCA	A.	25
	Recommended Fuse Size	A.	30
	MOCP - Fuse Rating	A.	35
Operating Range	Cooling Outdoor DB Min - Max	°F(°C)	-22~122 (-30~50)
	Heating Outdoor DB Min - Max	°F(°C)	-22~86 (-30~30)
Piping	Total Piping Length	ft (m)	164 (50)
	Piping Lift*	ft (m)	82 (25)
	Pipe Connection Size - Liquid	in (mm)	3/8 (9.52)
	Pipe Connection Size - Suction	in (mm)	5/8 (16)
Refrigerant	Refrigerant Type		R410A
	Metering Device		EEV
	Charge	lbs (kg)	5.73 (2.6)

Outdoor Coil	Face Area	Sq. Ft.	8.2
	No. Rows		2
	Fins per inch		20
	Circuits		4
Compressor	Type		Rotary Inverter
	Model		KTM240D43UKT
	Oil Type		VG74
	Oil Charge	Fl. Oz.	21.0
	Rated Current	RLA	14.8
Outdoor	Unit Width	in (mm)	37.24 (946)
	Unit Height	in (mm)	31.89 (810)
	Unit Depth	in (mm)	16.14 (410)
	Net Weight	lbs (kg)	134.48 (61)
	Airflow	CFM	2,235
	Sound Pressure	dB(A)	62.0

* Condensing unit above or below indoor unit
See compatibility chart for additional model specific information

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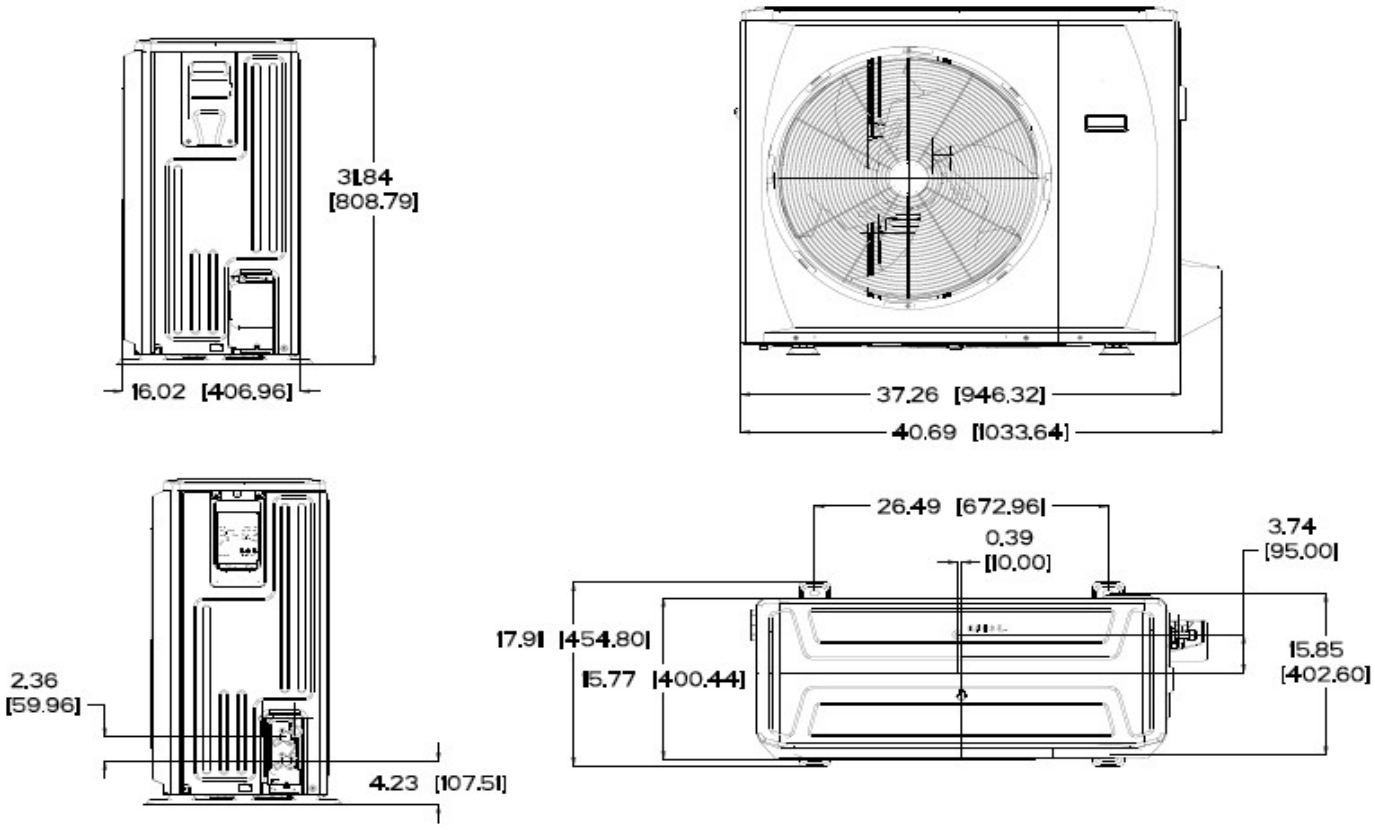
Edition Date: 07/2021

Catalog No: 38MARB-24-3-03SB

Construction View

Outdoor Model: **38MARBQ24AA3**



24V Interface Kit 2nd Generation
Ductless Systems

Model: KSAIC0301230 (208-230V)

Submittal Data

Job Data: _____ Location: _____

Buyer: _____ Buyer P.O. #: _____ Carrier #: _____

Unit Number: _____ Model Number: _____

Performance Data Certified By: _____ Date: _____

The 24V INTERFACE KIT 2nd Generation is used to connect:

- A **SINGLE ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **MULTI-ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **SINGLE ZONE** Ductless Condensing Unit with an approved Fan Coil/Furnace/Cased Coil and a third party single stage conventional thermostat (sold separately) allowing up to 3 different fan speeds on the indoor unit.

Features

- **AUTO Fan speed** on Single Zone and Multi-zone on Ductless applications
- **Up to 3 Fan speeds** on Single Zone Ductless Outdoor matched with Multi-family Fan Coils, Furnace/Cased Coils applications.
- One 24V INTERFACE KIT per indoor head
- Keeps the Inverter Compressor operating as a Variable Speed System
- Rated for outdoor and indoor mounting
- Dry mode contact for active dehumidification control
- Remote ON/OFF contact
- Auxiliary Heat control through the thermostat
- Diagnostic code display LEDs
- 208/230V Transformer Built-in

Parts included

- o 24V INTERFACE Control Box
- o Installation manual
- o Wall anchors
- o Screws M4X20mm
- o •16.4ft. (5m) Return Air Thermistor Assembly required and installed near or on the unit and on the air inlet side

Accessories, Sold Separately

☐ 115V transformer RCD# 11203103000393, used only on ductless systems with 115V power.

☐ Piping Adaptor Kit RCD# 331831-701, used ONLY on Multifamily applications with the FMA4, FMC and FMU fan coils to facilitate piping installation when removing the TXV kit from the indoor unit

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Edition Date: 03/19 Catalog No: SUB-KSAIC0301230-01

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Replaces: NEW

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Improved programming function and visual appearance

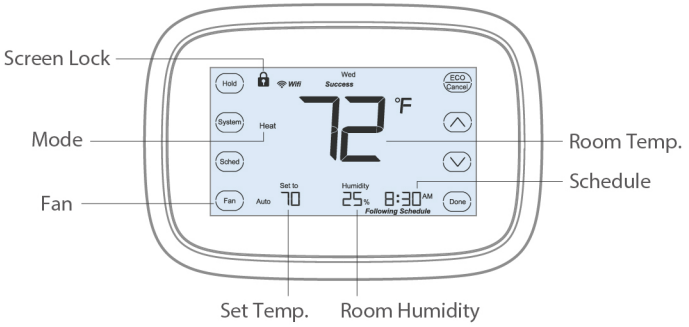
Smooth lines and natural curves

Key Features

- Up to 2heat/2cool
- Humidity sensor
- ECO mode saving energy
- 802.11 b/g/n Wi-Fi connection @ 2.4GHz
- 7-Day programmable with auto changeover
- 3 Fan speeds For High Rise Fancoil
- Keypad lock
- Pre-cooling/heating
- Compressor protection
- 24VAC power (C-wire required)
- 158x109x26mm(LxWxH)
- Auxiliary ERV/HRV On/Off control
- Compatible with gas/oil/electric boiler, furnace, heat pump, air-conditioning， High Rise Fancoil

Smart Thermostat | Big LCD | Touch Screen | Wi-Fi | Universal Compatibility | Smartphone Control

User Interface



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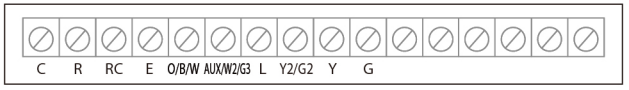

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Phone: (905)-660-0700

Coil Specifications

DX Cooling Coil Model A-CID-800

		Number of circuits	5
		Number of rows	3
		Fins per inch	12
Drain connection location	Side		
Connections location	Side		
Refrigerant	R410a	Entering Air dry bulb	78 °F
SuperHeat	10.0 °F	Entering Air wet bulb	65 °F
Liquid Temperature	105 °F		
Suction Temperature	42 °F	Leaving air dry bulb	54.2 °F
Refrigerant Pressure Drop	0.9 psi	LWB	53.5 °F
Refrigerant Mass Flow	412 Lb/H	Total Capacity	28,743 BTU/hr
Internal Volume	105 in^3	Sensible Capacity	19,987 BTU/hr

DX Heating Coil Model A-CID-800

		Number of circuits	5
		Number of rows	3
		Fins per inch	12
Drain connection location	Side		
Connections location	Side		
Refrigerant	R410a	Entering Air dry bulb	78 °F
SuperHeat	°F	Entering Air wet bulb	65 °F
Liquid Temperature	111 °F		
Suction Temperature	180 °F	Leaving air dry bulb	111.8 °F
Refrigerant Pressure Drop	0.9 psi		
Refrigerant Mass Flow	412 Lb/H	Total Capacity	29,203 BTU/hr
Internal Volume	105.2 in^3		

Outdoor Unit Single Zone Heat Pump Ductless System

Outdoor Model: 38MARBQ30AA3

Submittal Data

Turn to the experts

Job Data:		Location:	
Buyer:	Buyer P.O. #:	Carrier #:	
Unit Number:		Model Number:	
Performance Data Certified By:		Date:	

STANDARD FEATURES

- Variable Speed (Inverter)
- Factory installed Base Pan Heater
- Factory installed Crankcase Heater
- Low Voltage Controls
- Auto-Restart function
- Condenser High Temp Protection
- Modes: Cool, Heat, Dry, Fan, Auto
- Quiet operation
- Anti-corrosive fin coating

LIMITED WARRANTY*
• 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years
*For residential applications.
See warranty for full details.

NOTE: Images for illustration purposes only. Actual models may be slightly different.

System	Size		30
	Outdoor Model		38MARBQ30AA3
Electrical	Voltage, Phase, Cycle	V/Ph/Hz	208/230-1-60
	MCA	A.	23
	Recommended Fuse Size	A.	25
	MOCP - Fuse Rating	A.	30
Operating Range	Cooling Outdoor DB Min - Max	°F(°C)	-22~122 (-30~50)
	Heating Outdoor DB Min - Max	°F(°C)	-22~86 (-30~30)
Piping	Total Piping Length	ft (m)	164 (50)
	Piping Lift*	ft (m)	82 (25)
	Pipe Connection Size - Liquid	in (mm)	3/8 (9.52)
	Pipe Connection Size - Suction	in (mm)	5/8 (16)
Refrigerant	Refrigerant Type		R410A
	Metering Device		EEV
	Charge	lbs (kg)	6.06 (2.75)

Outdoor Coil	Face Area	Sq. Ft.	13.1
	No. Rows		3
	Fins per inch		18
	Circuits		6
Compressor	Type		Rotary Inverter
	Model		KTF250D22UMT
	Oil Type		VG74
	Oil Charge	Fl. Oz.	22.7
	Rated Current	RLA	15.0
Outdoor	Unit Width	in (mm)	37.24 (946)
	Unit Height	in (mm)	31.89 (810)
	Unit Depth	in (mm)	16.14 (410)
	Net Weight	lbs (kg)	141.76 (64.3)
	Airflow	CFM	2,235
	Sound Pressure	dB(A)	61.5

* Condensing unit above or below indoor unit
See compatibility chart for additional model specific information

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Edition Date: 07/2021

Catalog No: 38MARB-30-3-03SB

24V Interface Kit 2nd Generation
Ductless Systems

Model: KSAIC0301230 (208-230V)

Submittal Data

Job Data: _____ Location: _____

Buyer: _____ Buyer P.O. #: _____ Carrier #: _____

Unit Number: _____ Model Number: _____

Performance Data Certified By: _____ Date: _____

The 24V INTERFACE KIT 2nd Generation is used to connect:

- A **SINGLE ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **MULTI-ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **SINGLE ZONE** Ductless Condensing Unit with an approved Fan Coil/Furnace/Cased Coil and a third party single stage conventional thermostat (sold separately) allowing up to 3 different fan speeds on the indoor unit.

Features

- **AUTO Fan speed** on Single Zone and Multi-zone on Ductless applications
- **Up to 3 Fan speeds** on Single Zone Ductless Outdoor matched with Multi-family Fan Coils, Furnace/Cased Coils applications.
- One 24V INTERFACE KIT per indoor head
- Keeps the Inverter Compressor operating as a Variable Speed System
- Rated for outdoor and indoor mounting
- Dry mode contact for active dehumidification control
- Remote ON/OFF contact
- Auxiliary Heat control through the thermostat
- Diagnostic code display LEDs
- 208/230V Transformer Built-in

Parts included

- o 24V INTERFACE Control Box
- o Installation manual
- o Wall anchors
- o Screws M4X20mm
- o •16.4ft. (5m) Return Air Thermistor Assembly required and installed near or on the unit and on the air inlet side

Accessories, Sold Separately

☐ 115V transformer RCD# 11203103000393, used only on ductless systems with 115V power.

☐ Piping Adaptor Kit RCD# 331831-701, used ONLY on Multifamily applications with the FMA4, FMC and FMU fan coils to facilitate piping installation when removing the TXV kit from the indoor unit

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Replaces: NEW

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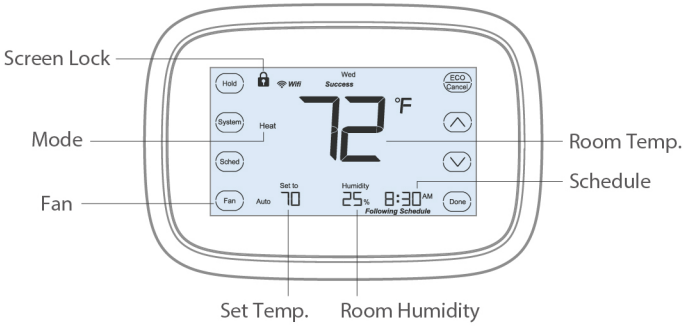
Smooth lines and natural curves

Key Features

- Up to 2heat/2cool
- Humidity sensor
- ECO mode saving energy
- 802.11 b/g/n Wi-Fi connection @ 2.4GHz
- 7-Day programmable with auto changeover
- 3 Fan speeds For High Rise Fancoil
- Keypad lock
- Pre-cooling/heating
- Compressor protection
- 24VAC power (C-wire required)
- 158x109x26mm(LxWxH)
- Auxiliary ERV/HRV On/Off control
- Compatible with gas/oil/electric boiler, furnace, heat pump, air-conditioning， High Rise Fancoil

Smart Thermostat | Big LCD | Touch Screen | Wi-Fi | Universal Compatibility | Smartphone Control

User Interface



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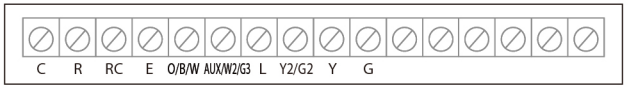

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Coil Specifications

DX Cooling Coil Model A-CID-1000

		Number of circuits	8
		Number of rows	4
		Fins per inch	12
Drain connection location	Side		
Connections location	Side		
Refrigerant	R410a	Entering Air dry bulb	78 °F
SuperHeat	10.0 °F	Entering Air wet bulb	65 °F
Liquid Temperature	105 °F		
Suction Temperature	42 °F	Leaving air dry bulb	50.8 °F
Refrigerant Pressure Drop	0.8 psi	LWB	50 °F
Refrigerant Mass Flow	600 Lb/H	Total Capacity	41,880 BTU/hr
Internal Volume	174.6 in^3	Sensible Capacity	28,502 BTU/hr

DX Heating Coil Model A-CID-1000

		Number of circuits	8
		Number of rows	4
		Fins per inch	12
Drain connection location	Side		
Connections location	Side		
Refrigerant	R410a	Entering Air dry bulb	78 °F
SuperHeat	°F	Entering Air wet bulb	65 °F
Liquid Temperature	111 °F		
Suction Temperature	180 °F	Leaving air dry bulb	111.8 °F
Refrigerant Pressure Drop	0.8 psi		
Refrigerant Mass Flow	600 Lb/H	Total Capacity	36,504 BTU/hr
Internal Volume	174.6 in^3		

Outdoor Unit Single Zone Heat Pump Ductless System

Outdoor Model: 38MBRBQ36AA3

Submittal Data

Job Data:		Location:	
Buyer:		Buyer P.O. #:	
Carrier #:			
Unit Number:		Model Number:	
Performance Data Certified By:		Date:	

STANDARD FEATURES

Features Outdoor:

- Variable Speed (Inverter) Compressor
- Basepan Heater factory installed
- Quiet operation
- Aluminum Hydrophilic pre-coated fins

- Piping length 213 ft. (65 m)

Cooling operating range -13° ~ 122° F (-25° ~ 50°C)
Heating operating range -22°~86°F (-30°~30°C)

LIMITED WARRANTY*
- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years

*For residential applications. See warranty for full details.

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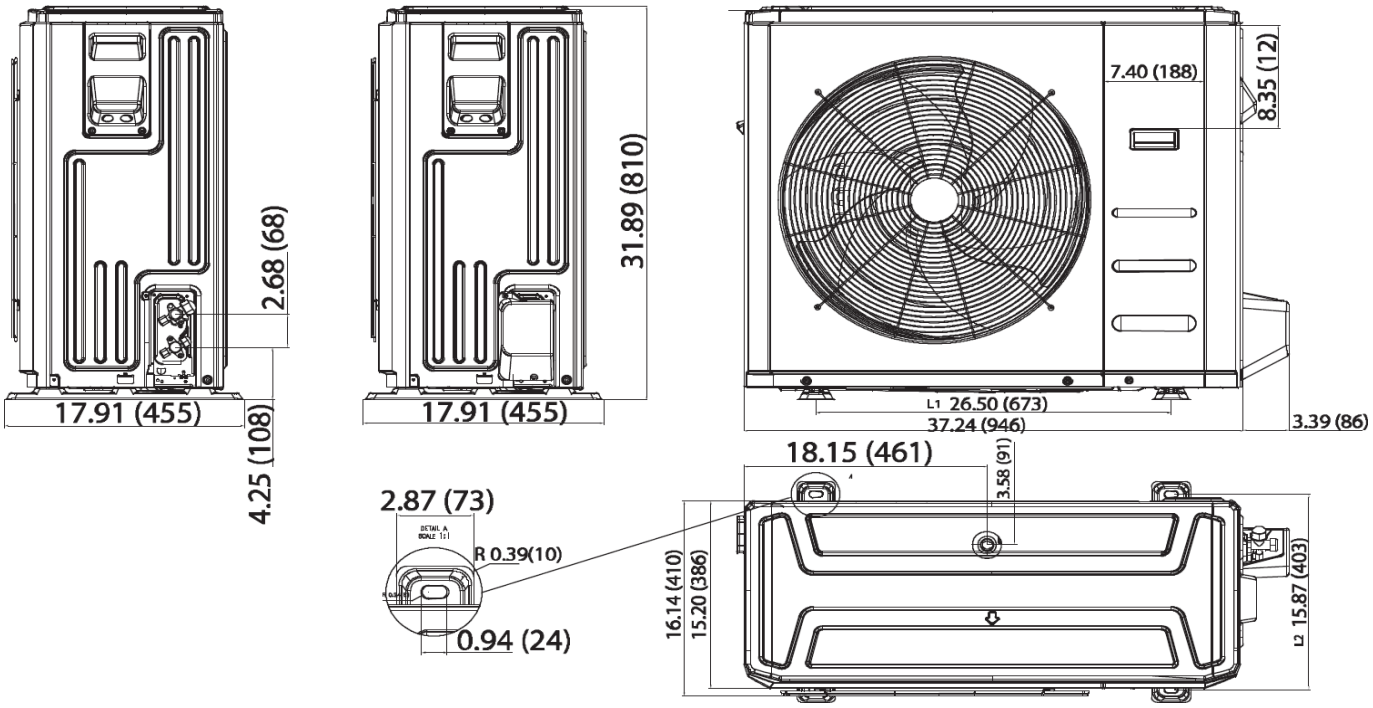
Edition Date: 04/2021
Catalog No: 38MBRB-36-02SB

Construction View



24V Interface Kit 2nd Generation
Ductless Systems

Model: KSAIC0301230 (208-230V)

Submittal Data

Job Data: _____ Location: _____

Buyer: _____ Buyer P.O. #: _____ Carrier #: _____

Unit Number: _____ Model Number: _____

Performance Data Certified By: _____ Date: _____

The 24V INTERFACE KIT 2nd Generation is used to connect:

- A **SINGLE ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **MULTI-ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **SINGLE ZONE** Ductless Condensing Unit with an approved Fan Coil/Furnace/Cased Coil and a third party single stage conventional thermostat (sold separately) allowing up to 3 different fan speeds on the indoor unit.

Features

- **AUTO Fan speed** on Single Zone and Multi-zone on Ductless applications
- **Up to 3 Fan speeds** on Single Zone Ductless Outdoor matched with Multi-family Fan Coils, Furnace/Cased Coils applications.
- One 24V INTERFACE KIT per indoor head
- Keeps the Inverter Compressor operating as a Variable Speed System
- Rated for outdoor and indoor mounting
- Dry mode contact for active dehumidification control
- Remote ON/OFF contact
- Auxiliary Heat control through the thermostat
- Diagnostic code display LEDs
- 208/230V Transformer Built-in

Parts included

- o 24V INTERFACE Control Box
- o Installation manual
- o Wall anchors
- o Screws M4X20mm
- o •16.4ft. (5m) Return Air Thermistor Assembly required and installed near or on the unit and on the air inlet side

Accessories, Sold Separately

☐ 115V transformer RCD# 11203103000393, used only on ductless systems with 115V power.

☐ Piping Adaptor Kit RCD# 331831-701, used ONLY on Multifamily applications with the FMA4, FMC and FMU fan coils to facilitate piping installation when removing the TXV kit from the indoor unit

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Edition Date: 03/19 Catalog No: SUB-KSAIC0301230-01

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Replaces: NEW

ESC Pro SMART THERMOSTAT

Pleasant user experience

Personalize your time schedule

Achieve all day comfort

Improved programming function and visual appearance

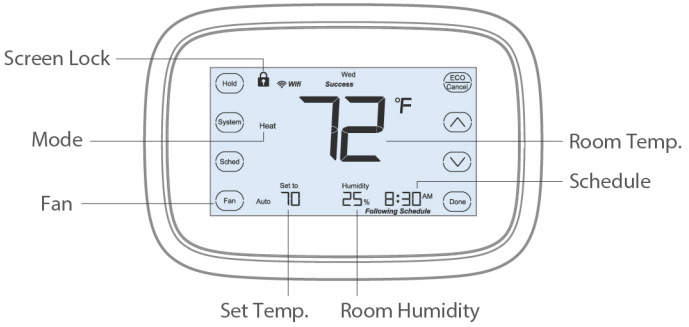
Smooth lines and natural curves

Key Features

- Up to 2heat/2cool
- Humidity sensor
- ECO mode saving energy
- 802.11 b/g/n Wi-Fi connection @ 2.4GHz
- 7-Day programmable with auto changeover
- 3 Fan speeds For High Rise Fancoil
- Keypad lock
- Pre-cooling/heating
- Compressor protection
- 24VAC power (C-wire required)
- 158x109x26mm(LxWxH)
- Auxiliary ERV/HRV On/Off control
- Compatible with gas/oil/electric boiler, furnace, heat pump, air-conditioning， High Rise Fancoil

Smart Thermostat | Big LCD | Touch Screen | Wi-Fi | Universal Compatibility | Smartphone Control

User Interface



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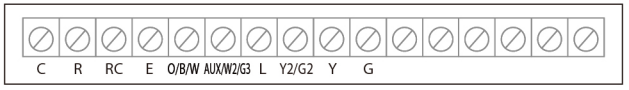

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Phone: (905)-660-0700

Coil Specifications

DX Cooling Coil Model A-CID-1200

		Number of circuits	8
		Number of rows	4
		Fins per inch	12
Drain connection location	Side		
Connections location	Side		
Refrigerant	R410a	Entering Air dry bulb	78 °F
SuperHeat	10.0 °F	Entering Air wet bulb	65 °F
Liquid Temperature	105 °F		
Suction Temperature	42 °F	Leaving air dry bulb	51.5 °F
Refrigerant Pressure Drop	1.0 psi	LWB	50.5 °F
Refrigerant Mass Flow	697 Lb/H	Total Capacity	48,673 BTU/hr
Internal Volume	174.6 in^3	Sensible Capacity	33,274 BTU/hr

DX Heating Coil Model A-CID-1200

		Number of circuits	8
		Number of rows	4
		Fins per inch	12
Drain connection location	Side		
Connections location	Side		
Refrigerant	R410a	Entering Air dry bulb	78 °F
SuperHeat	°F	Entering Air wet bulb	65 °F
Liquid Temperature	111 °F		
Suction Temperature	180 °F	Leaving air dry bulb	111.8 °F
Refrigerant Pressure Drop	1.0 psi		
Refrigerant Mass Flow	697 Lb/H	Total Capacity	49,248 BTU/hr
Internal Volume	174.6 in^3		

Outdoor Unit Single Zone Heat Pump Ductless System

Outdoor Model: **38MBRBQ48AA3**

Submittal Data

Job Data:		Location:	
Buyer:		Buyer P.O. #:	
Carrier #:		Unit Number:	
Model Number:		Performance Data Certified By:	
Date:			

STANDARD FEATURES

Features Outdoor:

- Variable Speed (Inverter) Compressor
- Basepan Heater factory installed
- Quiet operation
- Aluminum Hydrophilic pre-coated fins

- Piping length 213 ft. (65 m)

Cooling operating range -13° ~ 122° F (-25° ~ 50°C)
Heating operating range -22°~86°F (-30°~30°C)

LIMITED WARRANTY*
- 10 year limited to original purchaser on compressor and parts upon timely registration, otherwise 5 years

*For residential applications. See warranty for full details.

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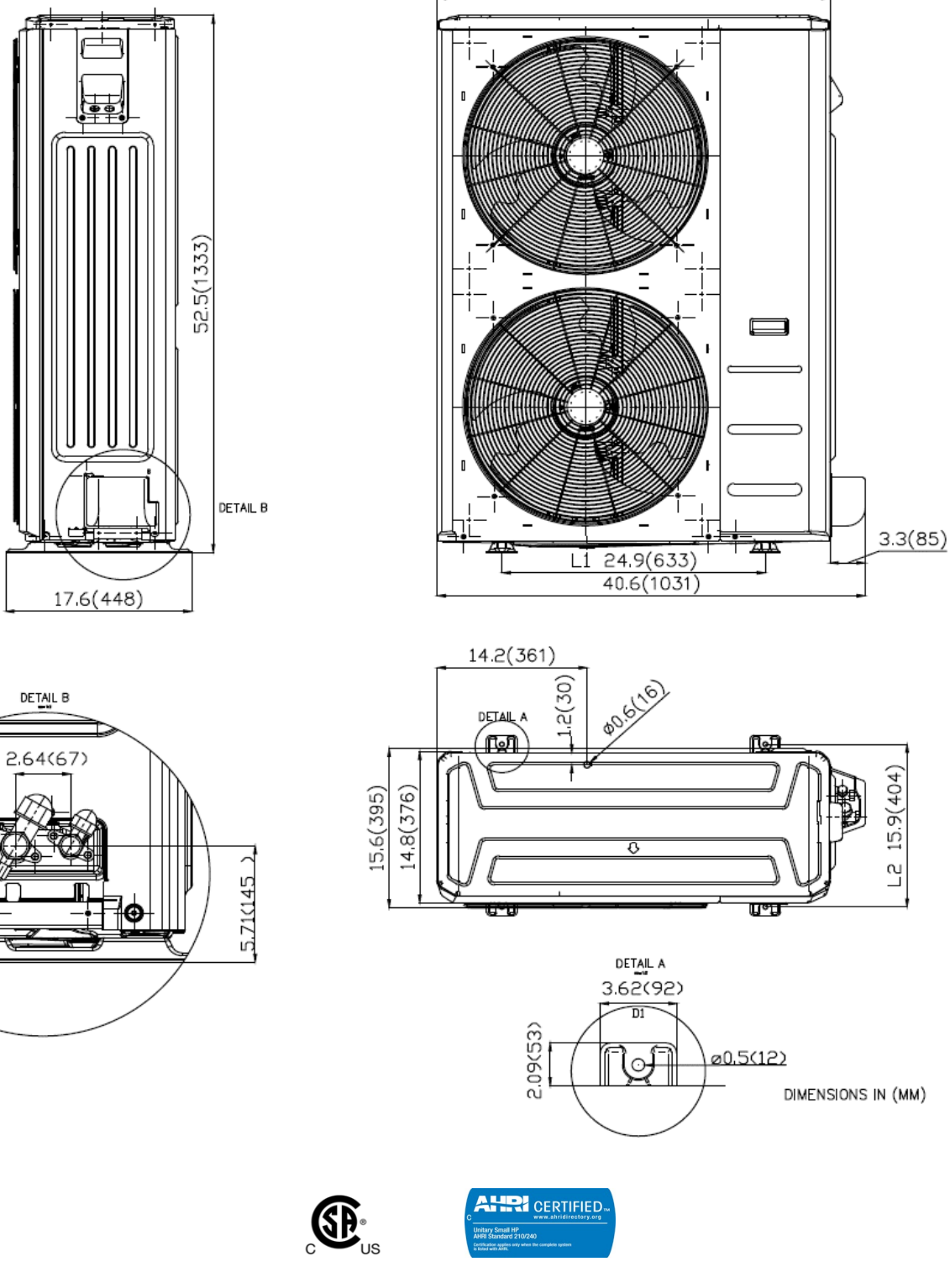
Edition Date: 04/2021

Catalog No: 38MBRB-48-02SB

Construction View



24V Interface Kit 2nd Generation
Ductless Systems

Model: KSAIC0301230 (208-230V)

Submittal Data

Job Data: _____ Location: _____

Buyer: _____ Buyer P.O. #: _____ Carrier #: _____

Unit Number: _____ Model Number: _____

Performance Data Certified By: _____ Date: _____

The 24V INTERFACE KIT 2nd Generation is used to connect:

- A **SINGLE ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **MULTI-ZONE** Ductless System to a 3rd party single stage conventional thermostat (sold separately) providing AUTO fan speed on the indoor unit.
- A **SINGLE ZONE** Ductless Condensing Unit with an approved Fan Coil/Furnace/Cased Coil and a third party single stage conventional thermostat (sold separately) allowing up to 3 different fan speeds on the indoor unit.

Features

- **AUTO Fan speed** on Single Zone and Multi-zone on Ductless applications
- **Up to 3 Fan speeds** on Single Zone Ductless Outdoor matched with Multi-family Fan Coils, Furnace/Cased Coils applications.
- One 24V INTERFACE KIT per indoor head
- Keeps the Inverter Compressor operating as a Variable Speed System
- Rated for outdoor and indoor mounting
- Dry mode contact for active dehumidification control
- Remote ON/OFF contact
- Auxiliary Heat control through the thermostat
- Diagnostic code display LEDs
- 208/230V Transformer Built-in

Parts included

- o 24V INTERFACE Control Box
- o Installation manual
- o Wall anchors
- o Screws M4X20mm
- o •16.4ft. (5m) Return Air Thermistor Assembly required and installed near or on the unit and on the air inlet side

Accessories, Sold Separately

☐ 115V transformer RCD# 11203103000393, used only on ductless systems with 115V power.

☐ Piping Adaptor Kit RCD# 331831-701, used ONLY on Multifamily applications with the FMA4, FMC and FMU fan coils to facilitate piping installation when removing the TXV kit from the indoor unit

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- Keypad lock
- Pre-cooling/heating
- Compressor protection
- 24VAC power (C-wire required)
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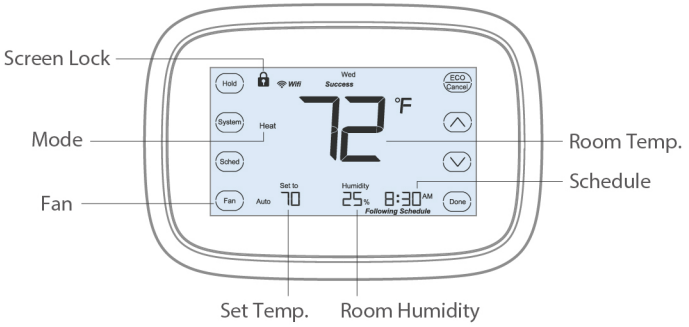

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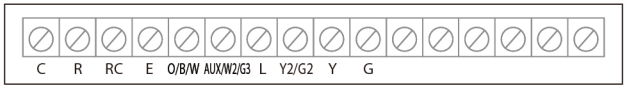

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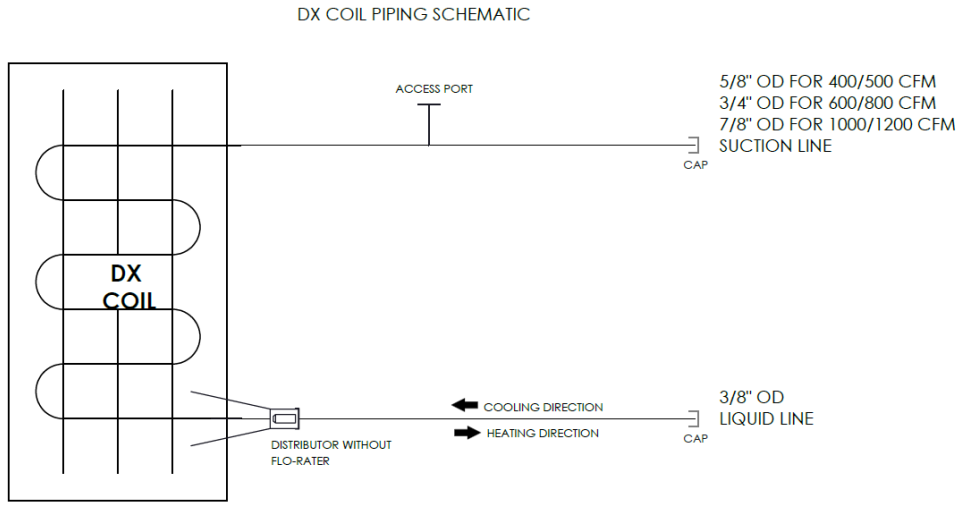
DX Cooling Coil Piping Schematic



Aldes IQ-VF Series Fan Coil Units - Top Discharge Measured SPL

Sound Data

Fan Coil Model	Test Date	Equipment Configuration	ERV Fan Speed	SA Fan Speed	Sound Level at 1.5m (Lin)								Sound Level at 1.5m (dBA)	NC Level at 1.5m
					63	125	250	500	1k	2k	4k	8k		
A-CL-450	July 13,2016	Top discharge only (return noise only)	Low	Low	52	48	40	31	21	14	11	8	36	30
			Low	Medium	47	48	40	34	26	16	13	6	37	30
			Low	High	49	49	41	37	32	21	19	10	39	32
A-CL-650	July 13,2016	Top discharge only (return noise only)	Low	Low	49	48	40	33	26	17	13	10	37	30
			Low	Medium	49	49	42	38	30	20	19	7	39	33
			Low	High	51	52	48	43	38	29	28	16	45	38
A-CL-1000	July 21,2016	Top discharge only (return noise only)	Low	Low	47	43	38	39	31	20	12	9	38	34
			Low	Medium	47	44	41	40	34	23	15	10	40	35
			Low	High	50	57	46	46	41	35	25	15	47	41
A-CL-1200	July 21,2016	Top discharge only (return noise only)	Low	Low	42	43	39	39	32	21	13	9	38	34
			Low	Medium	56	49	42	42	37	27	19	11	43	37
			Low	High	51	53	47	47	43	40	29	19	49	43

Aldes IQ-VF Series Fan Coil Units - Top Discharge PWL Calculated

Fan Coil Model	Test Date	Equipment Configuration	ERV Fan Speed	Fan Speed	Sound Power Level Calculated (Lin)								PWLA
					63	125	250	500	1k	2k	4k	8k	
A-CL-450	July 13,2016	Top discharge only (return noise only)	Low	Low	58	54	45	36	26	21	18	15	42
			Low	Medium	53	54	45	38	32	23	20	17	42
			Low	High	56	56	46	42	37	28	26	18	45
A-CL-650	July 13,2016	Top discharge only (return noise only)	Low	Low	56	54	45	37	32	24	20	18	42
			Low	Medium	56	56	47	43	35	27	26	15	45
			Low	High	57	59	53	48	44	36	35	24	50
A-CL-1000	July 21,2016	Top discharge only (return noise only)	Low	Low	53	49	43	44	36	27	19	17	43
			Low	Medium	53	51	46	45	40	30	22	18	45
			Low	High	56	64	51	51	47	42	32	23	53
IA-CL-1200	July 21,2016	Top discharge only (return noise only)	Low	Low	48	49	44	44	37	28	20	17	44
			Low	Medium	63	56	47	47	43	34	26	19	48
			Low	High	58	59	52	52	49	47	36	27	54

Watts/CFM

Fan Power Consumption

Fans: one supply air fan, two ERVs fans

ESP (inch) 0.2"
Voltage 115/1/60

Tag	Model	ERVs Fan Speed Continuous	Supply Air Fan Speed												Supply Air Fan Motor	ERVs Fan Motor hp
			Low				Medium				High					
			CFM	Watts	Amps	Watts/CFM	CFM	Watts	Amps	Watts/CFM	CFM	Watts	Amps	Watts/CFM		
FCU-1	CI/CIS -350	Low (50 CFM)	145	41	0.84	0.28	240	60	1.10	0.25	325	69	1.16	0.21	1/4 ECM	1/10 ECM
FCU-2	CI/CIS -450	Low (50 CFM)	150	42	0.83	0.28	298	60	1.07	0.20	415	85	1.38	0.20	1/4 ECM	1/10 ECM
FCU-3	CI/CIS -650	Low (50 CFM)	253	50	0.94	0.20	383	70	1.20	0.18	615	121	1.95	0.20	1/4 ECM	1/10 ECM
FCU-4	CI/CIS -800	Low (50 CFM)	306	55	0.99	0.18	485	84	1.36	0.17	790	179	2.55	0.23	1/4 ECM	1/10 ECM
FCU-5	CI/CIS -1000	Low (50 CFM)	516	102	1.38	0.20	696	144	1.99	0.21	980	285	3.86	0.29	1/3 ECM	1/10 ECM
FCU-6	CI/CIS -1200	Low (50 CFM)	612	123	1.71	0.20	790	183	2.46	0.23	1102	373	5.06	0.34	1/3 ECM	1/10 ECM

Limited Warranty Certificate

Period: Two years from the last unit shipped.

Aldes Inc. warrants the equipment stated above from factory defects in material or workmanship under normal use and proper maintenance schedule. The warranty covers only the products described as stated above.

This warranty does not cover any of the below items where applicable:

- Conditions, malfunction or damage not resulting from defect in material or workmanship.
- Any coil or riser freeze up resulting from open doors or windows, malfunction of the unit, damage to the unit, malfunction of building boiler, chiller systems.
- Failure, damage or repairs due to improper shipping and handling, faulty installation, misapplication, abuse, improper servicing.
- Damages resulting from accident, abuse, alteration, or acts of God (tampering, altering, defacing or removing the product labels will serve to void this warranty).
- Failure to start or damages due to voltage conditions, blown fuses, open circuit breakers, or damages due to the inadequacy or interruption of electrical service, internet service provider or mobile device carrier service or your home network.
- Failure or damage due to floods, winds, fires, lightning, accidents, corrosive environments (rust, etc.) or other conditions beyond the control of Aldes, Inc.
- Use of parts not supplied or designated by Aldes Inc., or damages resulting from their use.
- Any special, indirect or consequential property or commercial damage of any nature whatsoever.
- Any sound or power consumption issues due to motor programmed for Constant Airflow.
- Any claims about performance of fan coils.
- Any product purchased on the Internet
- Time and Labor on service calls that is not warranty.

Warning
Any unauthorized work done to the unit will void the Warranty. All authorization must be in writing.

Disclaimer
In no event shall Aldes Inc. be liable for any direct, indirect, punitive, incidental, special consequential damages, to property or life, whatsoever arising out of or connected with the use or misuse of our products.