

# Indoor Unit Specifications

ECM BLOWER MOTOR

R-410A TXV INSIDE

Air Handler

## Contents

1. Nomenclature- - - - -	2
2. Dimensions - - - - -	3
3. Product Specifications - - - - -	4
4. Blower Data- - - - -	5
5. Electric Heater Kit - - - - -	6



## Standard Features

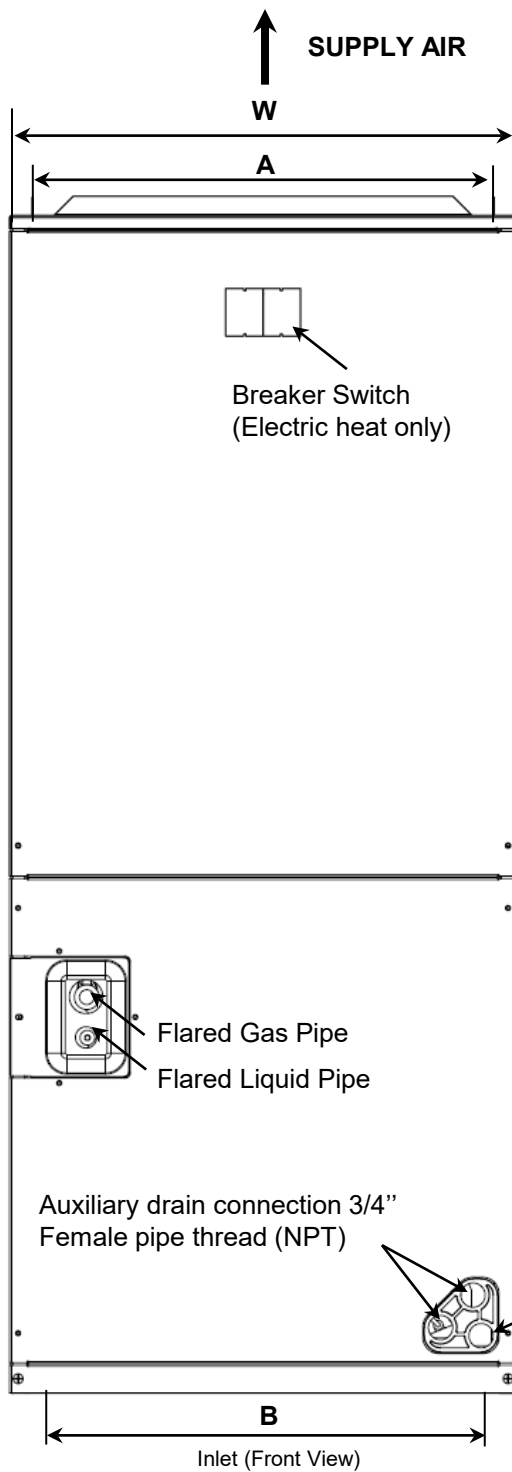
- ECM Motor
- Multi-position installation. (Vertical up-flow and horizontal right-flow)
- Multiple electrical entry locations.
- Field installed electric heat kits 5, 10, 15, 20KW.
- Two front panels (upper and lower) design for ease of maintenance.
- Slide rail design for motor and coil for ease of installing and servicing.
- Horizontal and vertical drain pan pre-installed.
- Primary and secondary condensate drain fittings.



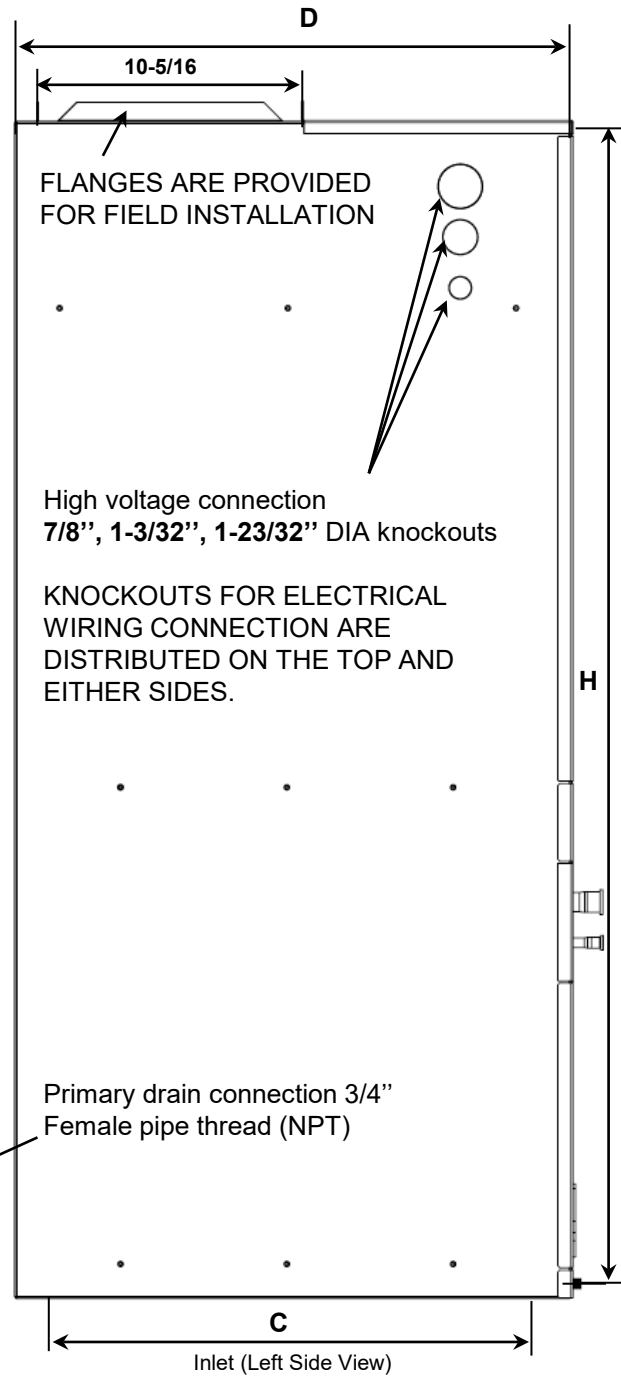
# 1. Nomenclature

Indoor Unit	C	V	T	A	N	-	36	A	A
	1	2	3	4	5		6	7	8
<b>Brand</b>	C: InverterCool								
<b>Product</b>	V: Vertical Air Handler								
<b>Expansion Device</b>	T: TXV      E: EEV								
<b>Refrigerant</b>	A: R410A      B: R454B								
<b>Voltage</b>	N: 208/230V, 1Ph, 60Hz L: 115V, 1Ph, 60Hz								
<b>Capacity</b>	24: 2Ton      36: 3Ton      48: 4Ton      60: 5Ton								
<b>Series</b>	A, B, C etc.								
<b>Revisions</b>	A, B, C etc.								

## 2. Dimensions



**NOTE:** 25" CLEARANCE IS REQUIRED IN THE FRONT OF THE UNIT FOR FILTER AND COIL MAINTENANCE.



Model Size	Dimensions Inch [mm]					
	"H" in. [mm]	"W" in. [mm]	"D" in. [mm]	"A" in. [mm]	"B" in. [mm]	"C" in. [mm]
24 / 36	46-1/2" [1180]	21" [533]	21" [533]	19-1/4" [489]	13-7/8" [352]	16" [407]
48 / 60	56" [1422]	24-1/2" [622]	21" [533]	22-3/4" [578]	15-1/4" [388]	16" [407]

### 3. Product Specifications

Model	CVTAN-24AA	CVTAN-36AA	CVTAN-48AA	CVTAN-60AA
<b>Capacity <sup>1</sup></b>				
Nominal Cooling (BTU/h)	23600	34200	45000	54000
Nominal Heating (BTU/h)	24000	35000	46000	54000
<b>Blower</b>				
Diameter	10"	11"	11"	11"
Width	8"	10 <sup>5</sup> / <sub>8</sub> "	10 <sup>5</sup> / <sub>8</sub> "	10 <sup>5</sup> / <sub>8</sub> "
<b>Fan Motor</b>				
Horsepower (HP)	1/3	1/2	3/4	3/4
Full Load Ampacity	2.4	4.1	6.0	6.0
<b>Refrigeration System</b>				
Refrigerant Line Size				
Liquid Line Size (O.D.)	3/8"	3/8"	3/8"	3/8"
Suction Line Size (O.D.)	3/4"	3/4"	7/8"	7/8"
Refrigerant Connection Size				
Liquid Line Size (O.D.)	3/8"	3/8"	3/8"	3/8"
Suction Line Size (O.D.)	3/4"	3/4"	7/8"	7/8"
Metering Device	TXV	TXV	TXV	TXV
Heating Metering Device (ODU side)	EEV	EEV	EEV	EEV
<b>Coil Drain Connection (NPT)</b>	3/4"	3/4"	3/4"	3/4"
<b>Decibels (dB)</b>				
High Speed (Tap 5)	60	63	67	67
Medium High Speed (Tap 4)	57	61	63	63
Medium Speed (Tap 3)	53	58	61	61
<b>Electrical Data</b>				
Voltage-Phase-Hz	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
Minimum Circuit Ampacity <sup>2</sup>	3.0	5.2	7.5	7.5
Max. Over-current Protection <sup>3</sup>	15	15	15	15
Volts Range	187~253	187~253	187~253	187~253
<b>Air Filter</b>				
Air Filter Size (in.)	20×18	20×18	22×20	22×20
<b>Weight</b>				
Equipment Weight (lbs.)	119	121	172	172
Ship Weight (lbs.)	150	154	207	207

**REMARKS:**

1. Tested and rated in accordance with AHRI Standard 210/240-2017.
2. Wire size should be determined in accordance with National Electrical Codes.
3. Must use time-delay fuses or HACR-type circuit breakers of the same size as noted.

## 4. Blower Data

Airflow data is based on cooling performance at 230V with no electric heat and no filter. Airflow at 208V is approximately the same as 230V because the multi-tap ECM motor is a constant torque motor. The torque doesn't drop off at the speeds in which the motor operates.

Check the performance table for appropriate unit size selection. External static pressure should stay within the minimum and maximum limits shown in the table below in order to ensure proper airflow.

Model	Motor Speed		SCFM / Watts										
			External Static Pressure-Inches W.C.[KPa]										
			0 [0]	0.1 [.02]	0.16 [.04]	0.2 [.05]	0.3 [.07]	0.4 [.10]	0.5 [.12]	0.6 [.15]	0.7 [.17]	0.8 [.20]	
24	Tap (5)	SCFM	1091	1041	1016	1001	950	905	857	803	740	691	
		Watts	170	179	186	189	199	208	217	227	239	244	
	Tap (4)- factory	SCFM	928	888	854	833	792	721	658	622	562	517	
		Watts	106	117	121	124	135	143	154	162	170	178	
	Tap (3)	SCFM	832	773	757	729	692	626	572	522	473	406	
		Watts	78	84	90	92	101	111	121	128	134	144	
	Tap (2)	SCFM	708	655	620	599	539	478	423	389	331	279	
		Watts	55	62	66	70	80	86	92	101	108	115	
	Tap (1)	SCFM	658	573	548	521	446	403	342	289	230	189	
		Watts	46	49	55	59	66	75	80	89	93	99	
	36	Tap (5)	SCFM	1458	1412	1390	1366	1320	1274	1194	1167	1072	1027
			Watts	280	295	298	300	308	317	327	337	350	357
Tap (4)- factory		SCFM	1287	1240	1210	1192	1149	1077	1006	939	888	832	
		Watts	203	212	216	221	228	232	246	258	266	272	
Tap (3)		SCFM	1133	1084	1057	1035	979	896	835	777	724	670	
		Watts	147	154	157	162	169	180	190	197	204	211	
Tap (2)		SCFM	929	872	839	796	716	653	598	527	460	380	
		Watts	81	92	95	100	114	120	127	136	143	153	
Tap (1)		SCFM	802	756	692	651	594	525	453	355	270	210	
		Watts	60	69	72	78	87	91	98	108	114	119	
48		Tap (5)	SCFM	1952	1909	1884	1866	1827	1784	1740	1697	1658	1616
			Watts	574	581	585	589	596	608	611	623	635	643
	Tap (4)	SCFM	1766	1725	1701	1678	1643	1598	1551	1507	1457	1403	
		Watts	418	429	436	443	453	462	468	479	485	496	
	Tap (3)- factory	SCFM	1558	1514	1489	1471	1433	1389	1345	1302	1248	1191	
		Watts	297	308	318	324	334	346	359	369	374	391	
	Tap (2)	SCFM	1281	1261	1244	1199	1154	1111	1076	1015	966	912	
		Watts	165	178	189	192	206	220	232	250	263	272	
	Tap (1)	SCFM	998	966	956	917	883	835	794	745	701	646	
		Watts	89	103	111	115	130	146	159	174	181	196	
	60	Tap (5)	SCFM	1952	1909	1884	1866	1827	1784	1740	1697	1658	1616
			Watts	574	581	585	589	596	608	611	623	635	643
Tap (4)- factory		SCFM	1766	1725	1701	1678	1643	1598	1551	1507	1457	1403	
		Watts	418	429	436	443	453	462	468	479	485	496	
Tap (3)		SCFM	1558	1514	1489	1471	1433	1389	1345	1302	1248	1191	
		Watts	297	308	318	324	334	346	359	369	374	391	
Tap (2)		SCFM	1281	1261	1244	1199	1154	1111	1076	1015	966	912	
		Watts	165	178	189	192	206	220	232	250	263	272	
Tap (1)		SCFM	998	966	956	917	883	835	794	745	701	646	
		Watts	89	103	111	115	130	146	159	174	181	196	

Shaded boxes represent airflow outside the required 300-450 CFM/ton.

## 5. Electric Heater Kit

Kit Model	Description	24	36	48	60
<b>EHK05</b>	5kW Heater Kit, Double Pole Breaker	●	●	●	●
<b>EHK10</b>	10kW Heater Kit, Double Pole Breaker	●	●	●	●
<b>EHK15</b>	15kW Heater Kit, Double Pole Breaker	×	●	●	●
<b>EHK20</b>	20kW Heater Kit, Double Pole Breaker	×	×	●	●

Kit Model	AHU Model	Heating Capacity (kW)	MIN. Circuit Ampacity		MAX. Fuse or Breaker (HACR) Ampacity		Fan Speed				
			240	208	240	208	1	2	3	4	5
<b>EHK05</b>	24	5	25	22	30	25	×	●	●	●	●
<b>EHK10</b>		10	49	43	60	50	×	×	●	●	●
<b>EHK05</b>	36	5	25	22	30	25	×	●	●	●	●
<b>EHK10</b>		10	49	43	60	50	×	×	●	●	●
<b>EHK15</b>		5+10	25+49	22+43	30+60	25+50	×	×	●	●	●
<b>EHK05</b>	48	5	25	22	30	25	×	●	●	●	●
<b>EHK10</b>		10	49	43	60	50	×	●	●	●	●
<b>EHK15</b>		5+10	25+49	22+43	30+60	25+50	×	×	●	●	●
<b>EHK20</b>		10+10	49+49	43+43	60+60	50+50	×	×	×	●	●
<b>EHK05</b>	60	5	25	22	30	25	×	×	●	●	●
<b>EHK10</b>		10	49	43	60	50	×	×	●	●	●
<b>EHK15</b>		5+10	25+49	22+43	30+60	25+50	×	×	●	●	●
<b>EHK20</b>		10+10	49+49	43+43	60+60	50+50	×	×	×	●	●

● means available    × means unavailable

Electric heater kits are suitable for air handler multiple position installation.



©2022 InverterCool, Inc.

6611 NW 84th Ave, Miami, FL 33166

Tel: 1 (855) 632 0620

[www.invertercool.com](http://www.invertercool.com)