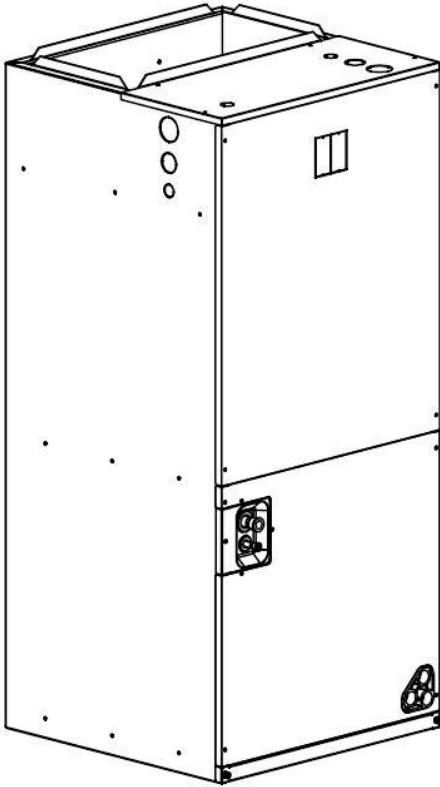




# E Series Air Handler

Making your home Green & Smart



## ***ECM BLOWER MOTOR TXV INSIDE***

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### ■ **Standard Features**

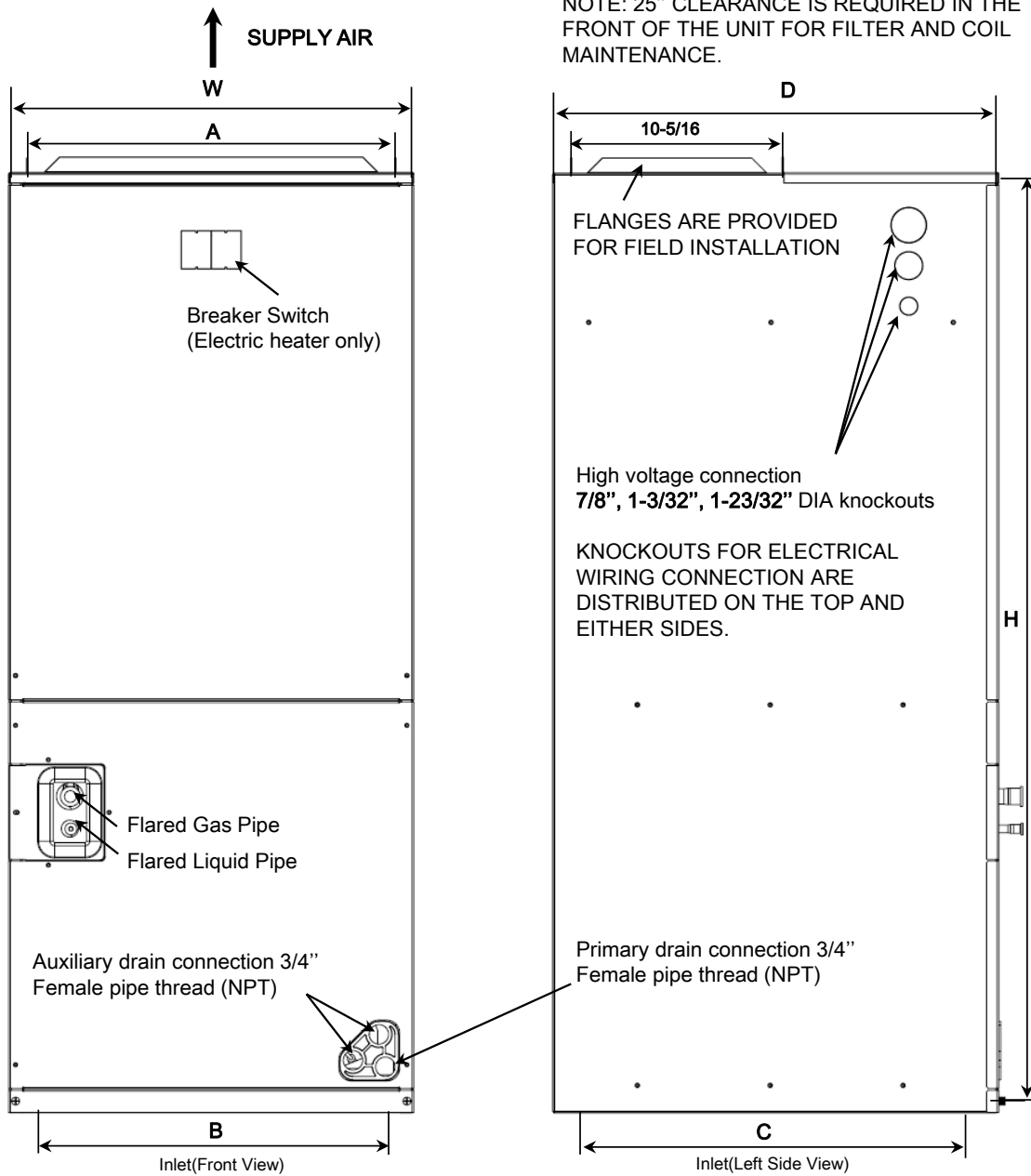
1. Multi-position installation.  
*up-flow or horizontal right-flow standard; field convertible to down-flow or horizontal left-flow*
2. Multiple electrical entry locations.
3. Field installed heater kits 5, 10, 15, 20KW.
4. Two front panels (upper and lower) design for ease of maintenance.
5. Slide rail design for motor and coil for ease of installing and servicing.
6. Horizontal and vertical drain pan pre-installed.
7. Primary and secondary condensate drain fittings.
8. Variable speed is available to get even better dehumidification control if cooperating with Ecoer thermostat.



## 1. Nomenclature

	<b>E</b>	<b>AH</b>	<b>A</b>	<b>T</b>	<b>N</b>	<b>-</b>	<b>24</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>		<b>6</b>
<b>Brand</b>	E: Ecoer						
<b>Product Series</b>	AH: Indoor Air Handler						
<b>Model Letters</b>	A: 208/230V-1Ph-60Hz						
<b>Metering device</b>	T: TXV						
<b>Communications</b>	N: 24V Normal						
<b>Capacity</b>	24=24000BTU/h=2Ton; 36=36000BTU/h=3Ton; 48=48000BTU/h=4Ton; 60=60000BTU/h=5Ton.						

## 2. Dimensions



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 Name	EAHATN-24	EAHATN-36	EAHATN-48	EAHATN-60
<b>Capacity <sup>1</sup></b>				
Nominal Cooling(BTU/h)	23400	34200	45000	54000
Nominal Heating(BTU/h)	24000	36000	47000	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(FPT)</b>	3/4"	3/4"	3/4"	3/4"
<b>Decibels (dB)</b>				
High Speed	60	63	67	67
Medium High Speed	57	61	63	63
Medium Speed	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.)	20×19 (19×19)	20×19 (19×19)	23×20	23×20
<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.
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.

Model Number	Motor Speed	CFM (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	1062	1031	998	981	947	901	869	823	789	742
		Watts	184	195	201	203	213	222	228	238	242	252
	Tap(4)	SCFM	959	921	890	873	836	786	751	706	677	622
		Watts	138	145	152	156	162	171	178	188	196	204
	Tap(3)-factory	SCFM	855	825	790	769	733	679	646	595	560	494
		Watts	101	111	118	120	126	134	141	151	156	166
	Tap(2)	SCFM	777	750	712	692	656	599	566	498	466	412
		Watts	80	89	96	98	104	113	119	127	135	145
	Tap(1)	SCFM	694	663	620	599	562	499	455	390	---	---
		Watts	60	68	74	76	82	89	95	104	---	---
36	Tap(5)	SCFM	1455	1409	1374	1355	1320	1266	1229	1173	1126	956
		Watts	293	300	306	309	316	326	331	338	346	370
	Tap(4)	SCFM	1350	1302	1264	1242	1206	1145	1104	1038	897	824
		Watts	238	243	254	257	260	271	277	286	303	308
	Tap(3)-factory	SCFM	1328	1281	1234	1215	1179	1118	1073	1007	862	798
		Watts	226	232	239	242	250	259	264	278	292	298
	Tap(2)	SCFM	1235	1171	1130	1108	1062	1002	955	824	752	713
		Watts	185	189	196	199	205	214	221	238	245	248
	Tap(1)	SCFM	1146	1091	1044	1022	982	908	823	748	708	---
		Watts	150	156	163	167	174	184	196	202	207	---
48	Tap(5)	SCFM	2144	2106	2072	2052	2015	1962	1924	1864	1823	1768
		Watts	627	632	639	643	649	661	670	681	684	696
	Tap(4)	SCFM	1999	1966	1933	1915	1875	1819	1775	1713	1672	1582
		Watts	510	520	529	536	540	551	555	567	571	588
	Tap(3)-factory	SCFM	1788	1746	1714	1695	1660	1606	1565	1499	1452	1355
		Watts	367	374	389	393	404	422	429	440	449	458
	Tap(2)	SCFM	1633	1596	1564	1554	1514	1467	1424	1342	1290	1231
		Watts	292	300	311	318	329	343	354	376	382	391
	Tap(1)	SCFM	1504	1468	1428	1408	1362	1298	1244	1182	1160	1081
		Watts	228	242	250	255	264	279	291	309	318	327
60	Tap(5)	SCFM	2144	2106	2072	2052	2015	1962	1924	1864	1823	1768
		Watts	627	632	639	643	649	661	670	681	684	696
	Tap(4)	SCFM	1999	1966	1933	1915	1875	1819	1775	1713	1672	1582
		Watts	510	520	529	536	540	551	555	567	571	588
	Tap(3)-factory	SCFM	1788	1746	1714	1695	1660	1606	1565	1499	1452	1355
		Watts	367	374	389	393	404	422	429	440	449	458
	Tap(2)	SCFM	1633	1596	1564	1554	1514	1467	1424	1342	1290	1231
		Watts	292	300	311	318	329	343	354	376	382	391
	Tap(1)	SCFM	1504	1468	1428	1408	1362	1298	1244	1182	1160	1081
		Watts	228	242	250	255	264	279	291	309	318	327

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

**NOTE: G2 signal occupies Tap(1) step deserved for Ecoer thermostat to get even better dehumidification .**

## 5.Heater Kit

Model	Description	24	36	48	60
E-EHK05	5kW Heat Kit, Double Pole Breaker	●	●	●	●
E-EHK10	10kW Heat Kit, Double Pole Breaker	●	●	●	●
E-EHK15	15kW Heat Kit, Double Pole Breaker	×	●	●	●
E-EHK20	20kW Heat Kit, Double Pole Breaker	×	×	●	●

Heater Kit Model	AHU Model	Electric Heater(kW)	MIN. Circuit Ampacity		MAX. Fuse or Breaker (HACR) Ampacity		Fan speed				
			240	208	240	208	1	2	3	4	5
E-EHK05	24	5	25	22	30	25	×	●	●	●	●
E-EHK10		10	49	43	60	50	×	×	●	●	●
E-EHK05	36	5	25	22	30	25	×	●	●	●	●
E-EHK10		10	49	43	60	50	×	×	●	●	●
E-EHK15		5+10	25+49	22+43	30+60	25+50	×	×	●	●	●
E-EHK05	48	5	25	22	30	25	×	●	●	●	●
E-EHK10		10	49	43	60	50	×	●	●	●	●
E-EHK15		5+10	25+49	22+43	30+60	25+50	×	×	●	●	●
E-EHK20		10+10	49+49	43+43	60+60	50+50	×	×	×	●	●
E-EHK05	60	5	25	22	30	25	×	●	●	●	●
E-EHK10		10	49	43	60	50	×	●	●	●	●
E-EHK15		5+10	25+49	22+43	30+60	25+50	×	×	●	●	●
E-EHK20		10+10	49+49	43+43	60+60	50+50	×	×	×	●	●
E-EHK20		10+10	49+49	43+43	60+60	50+50	×	×	×	●	●

● means available    × means unavailable

Heater kits are suitable for air handler multiple position installation.

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