

Project Name:	
Location:	
Engineer:	
Submitted to:	
Submitted by:	
Reference:	

Approval:	
Date:	
Construction:	
Unit #:	
Drawing #:	

Description: Hi-Ultra, 2.0 Ton Multi-Position Air Handler, Heat Pump



Air Handler Model:  
AUH-24UX3SDH2



Condensing Unit Model:  
AUWR-24U3SF2

KEY FEATURES

Air Handler Features

- Highly efficient totally enclosed ECM motor.
- External static pressure: 0.80 In.W.C. for 2Ton-5Ton.
- Multi-position installation: horizontal (left or right), vertical (up or down).
- Optional electric heat kit for additional heat capacity.
- High anti-corrosion coils.
- Universal 24V 3rd party thermostat is available.

Condensing Unit Features

- Easy installation for new construction or retrofit application. Compatible with most of other brands air handler or A-coil. No need additional 24V interface module.
- Quieter outdoor with variable speed compressor.
- Low operating temp: -13°F(-25 °C) for heating, and 5 ° F(-15 ° C) for cooling.
- Standard with Base Pan Heater to melt the ice and snow.
- Rating with Aspen indoor units in AHRI: LEW30E4, LEW30F4, LEM36E4, LEM24I4

ESP - Air Flow Table

Airflow performance data is based on cooling performance with a coil and no filter in place. 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 cooling, heating ,and electric heating operation.



Bold outlined areas represent airflow outside of the required 300-450 cfm/ton range.

Air Flow Table

Air Handler Model	Motor Speed		External Static Pressure in.H2O[KPa]								
			0[0]	0.1[0.02]	0.18[0.045]	0.3[0.07]	0.4[0.1]	0.5[0.12]	0.6[0.15]	0.7[0.17]	0.8[0.20]
24K	Tap(1) -Default Setting	CFM	815	792	752	709	676	653	615	566	512
		Watts	94	102	110	123	130	139	148	157	167
	Tap(2)	CFM	862	828	792	735	705	673	661	618	561
		Watts	106	114	125	137	145	154	161	170	177
	Tap(3)	CFM	975	940	906	859	853	803	769	735	681
		Watts	148	155	165	178	185	193	203	213	219
	Tap(4)	CFM	1055	1024	995	948	922	895	864	825	779
		Watts	197	204	214	228	234	241	251	258	267

Electric Heater

Air Handler Model	Electric Heat (kW)	MIN. Circuit Ampacity		MAX. Fuse or Breaker (HACR) Ampacity		Fan Speed Tap			
		230VAC	208VAC	230VAC	208VAC	2	3	4	5
24K BTU	HS-EH5	28.3	25.9	30	30	●	●	●	●
	HS-EH75	40.7	37.2	45	40	×	●	●	●
	HS-EH10	53.2	48.5	60	50	×	×	●	●

## Technical Spec.

### PERFORMANCE DATA

Power supply	Ph-V-Hz	208-230V,1Ph,60Hz
--------------	---------	-------------------

#### Cooling

Capacity	Btu/h	22000
Input	W	2180
Capacity(min-max)	Btu/h	6700-26000
EER2	Btu/w	10.1
SEER2	Btu/w	16.5

#### Heating

Capacity	Btu/h	23000
Input	W	1980
Capacity(min-max)	Btu/h	6700-26000
COP2(47°F)	W/W	3.4
HSPF2	Btu/w	9.0
COP @ 5F (@Max. Capacity)	W/W	2.1

#### Electrical

MINIMUM CIRCUIT AMPACITY	A	3.3
MAX. FUSE	A	Outdoor25 / Indoor10
Connection wiring		outdoor3x12,Indoor3x16 AWG

#### Compressor

Type		Twin ROTARY
Rated current(RLA)	A	11
Locked rotor Amp(LRA)	A	---
Thermal protector		---
Thermal protector position		---
Refrigerant oil/oil charge	ml	VG74 /670

#### SYSTEM DATA

Design pressure	PSIG	550/240
Refrigerant type	oz	R410A/70.5
Refrigerant precharge	ft	25
Additional charge per ft.	oz	0.38
Liquid side/ Gas side	mm(in)	Φ9.52/Φ15.88(3/8'/5/8')
Max. refrigerant pipe length	ft	164
Max. difference in level	ft.	98

#### ESP

ESP range	ln. wg.	0-0.8 (0-200)
-----------	---------	---------------

## Technical Spec.

**INDOOR UNIT****DATA**

<b>Indoor fan motor</b>		
Model		ZWK702B006073
Type		DC
Input		1/3
RLA	A	2.4~2.6
LRA	A	---
Winding Resistance	$\Omega$	---
Capacitor	$\mu\text{F}$	---
Speed(Hi/Mi/Lo)	r/min	350~1400
<b>Air flow &amp; Noise level</b>		
Indoor air flow (Hi/Lo)	CFM	800
Indoor noise level (Hi/Lo)	dB(A)	55

**Indoor unit**

Dimension(W*H*D)	inch	19-5/8 × 46-1/8 × 21-5/8
Packing (W*H*D)	inch	22-1/2 × 49-5/8 × 25-3/8
Net/Gross weight	lbs.	135.5/158.6

**OUTDOOR UNIT DATA**

<b>Outdoor fan motor</b>		
Model		ZWK511A805001
Type		DC
Input		60
RLA	A	0.7
LRA	A	---
Winding Resistance	$\Omega$	---
Capacitor	$\mu\text{F}$	---
Speed	r/min	880
<b>Air flow &amp; Noise level</b>		
Outdoor air flow	CFM	1825
Outdoor noise level	dB(A)	54

**Outdoor unit**

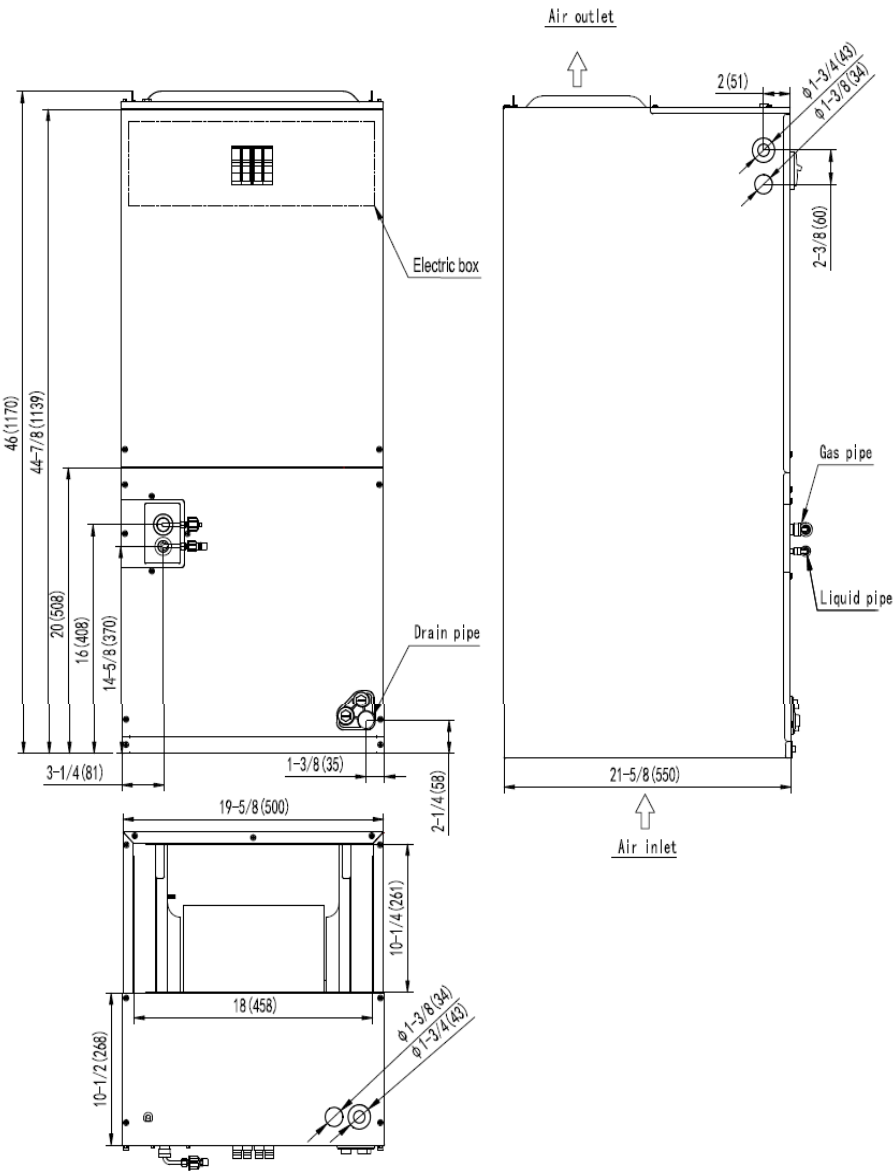
Dimension(W*H*D)	inch	33-7/8 × 26-3/8 × 12-1/4
Packing (W*H*D)	inch	39 × 28-3/4 × 17-3/4
Net/Gross weight	lbs.	112.4/121.3

**Operation temperature**

Indoor(cooling/ heating)	Deg. F	62~90/32~86
Outdoor(cooling/heating)	Deg. F	5~118/ -4~75

DIMENSIONAL DRAWING  
Air Handler

Unit: inch(mm)



DIMENSIONAL DRAWING  
Condensing Units

Unit: inch(mm)

