

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

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

## Description: Hi-Ultra, 4.0 Ton Multi-Position Air Handler, Heat Pump



**Air Handler Model:**  
AUH-48UX3SEH2



**Condensing Unit Model:**  
AUWR-48U3SP2

## 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 3<sup>rd</sup> 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: **LEM48E4, LEM60B4, LEM60C4, LEM60D4**

## 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]
48K	Tap(1) -Default Setting	CFM	1756	1701	1626	1579	1520	1468	1425	1386	1346
		Watts	348	357	369	378	387	395	407	410	424
	Tap(2)	CFM	1799	1746	1678	1634	1571	1522	1449	1402	1241
		Watts	366	377	388	398	410	419	428	444	440
	Tap(3)	CFM	1828	1794	1749	1719	1670	1633	1589	1553	1510
		Watts	376	387	401	413	428	437	452	465	482
	Tap(4)	CFM	1888	1855	1813	1782	1735	1701	1665	1626	1585
		Watts	415	428	445	456	469	481	495	510	525

## Electric Heater

Model	Electric Heat Kit Model	Electric Heat (kW)	MIN. Circuit Ampacity		MAX. Fuse or Breaker (HACR) Ampacity		Fan Speed Tap			
			230VAC	208VAC	230VAC	208VAC	2	3	4	5
48K/60K	HS-EH5	5	31.8	29.4	35	30	●	●	●	●
	HS-EH75	7.5	44.8	40.7	45	45	×	●	●	●
	HS-EH10	10	56.7	51.9	60	55	×	×	●	●
	HS-EH15	15	44.8+36.9	40.7+33.8	50+40	50+35	×	×	●	●
	HS-EH20	20	56.7+49.9	51.9+45.2	60+50	60+50	×	×	×	●

## Technical Spec.

### PERFORMANCE

#### DATA

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

Capacity	Btu/h	48000
Input	W	4750
Capacity(min-max)	Btu/h	18300-52000
EER2	Btu/w	10.1
SEER2	Btu/w	17.5

#### Heating

Capacity	Btu/h	47000
Input	W	4170
Capacity(min-max)	Btu/h	17600-52000
COP2(47°F)	W/W	3.3
HSPF2	Btu/w	8.5
COP @ 5F (@Max. Capacity)	W/W	1.9

#### Electrical

MINIMUM CIRCUIT AMPACITY	A	6.8
MAX. FUSE	A	15
Connection wiring		outdoor3×8,Indoor3×16AWG

#### Compressor

Type		Twin ROTARY
Brand		GMCC
Rated current(RLA)	A	26
Locked rotor Amp(LRA)	A	---
Thermal protector		---
Thermal protector position		---
Refrigerant oil/oil charge	ml	VG74 /1000

#### SYSTEM DATA

Design pressure	PSIG	550/240
Refrigerant type	oz	R410A/142.9
Refrigerant precharge	ft	25
Additional charge per ft.	oz	0.6
Liquid side/ Gas side	mm(in)	Φ9.52/Φ22.22(3/8'/7/8')
Max. refrigerant pipe length	ft	246
Max. difference in level	ft.	0

#### ESP

ESP range	ln. wg.	0-0.8 (0-200)
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## Technical Spec.

### INDOOR UNIT DATA

<b>Indoor fan motor</b>		
Model		ZKSD-560-8-50-14
Type		DC
Input		3/4
RLA	A	5.0~5.4
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	1588
Indoor noise level (Hi/Lo)	dB(A)	64

### Indoor unit

Dimension(W*H*D)	inch	22×53-7/8 × 24
Packing (W*H*D)	inch	25-1/4 × 55-1/2 × 28
Net/Gross weight	lbs.	187.2/214

### OUTDOOR UNIT DATA

<b>Outdoor fan motor</b>		
Model		SIC-71FW-D8121-1/SIC-71FW-D8121-2
Type		DC
Input		121
RLA	A	1.00
LRA	A	---
Winding Resistance	$\Omega$	---
Capacitor	$\mu\text{F}$	---
Speed	r/min	850
<b>Air flow &amp; Noise level</b>		
Outdoor air flow	CFM	3525
Outdoor noise level	dB(A)	59

### Outdoor unit

Dimension(W*H*D)	inch	37-3/8×54-5/8×13-3/8
Packing (W*H*D)	inch	43-3/4×60-1/4×18-1/8
Net/Gross weight	lbs.	227.1/253.5

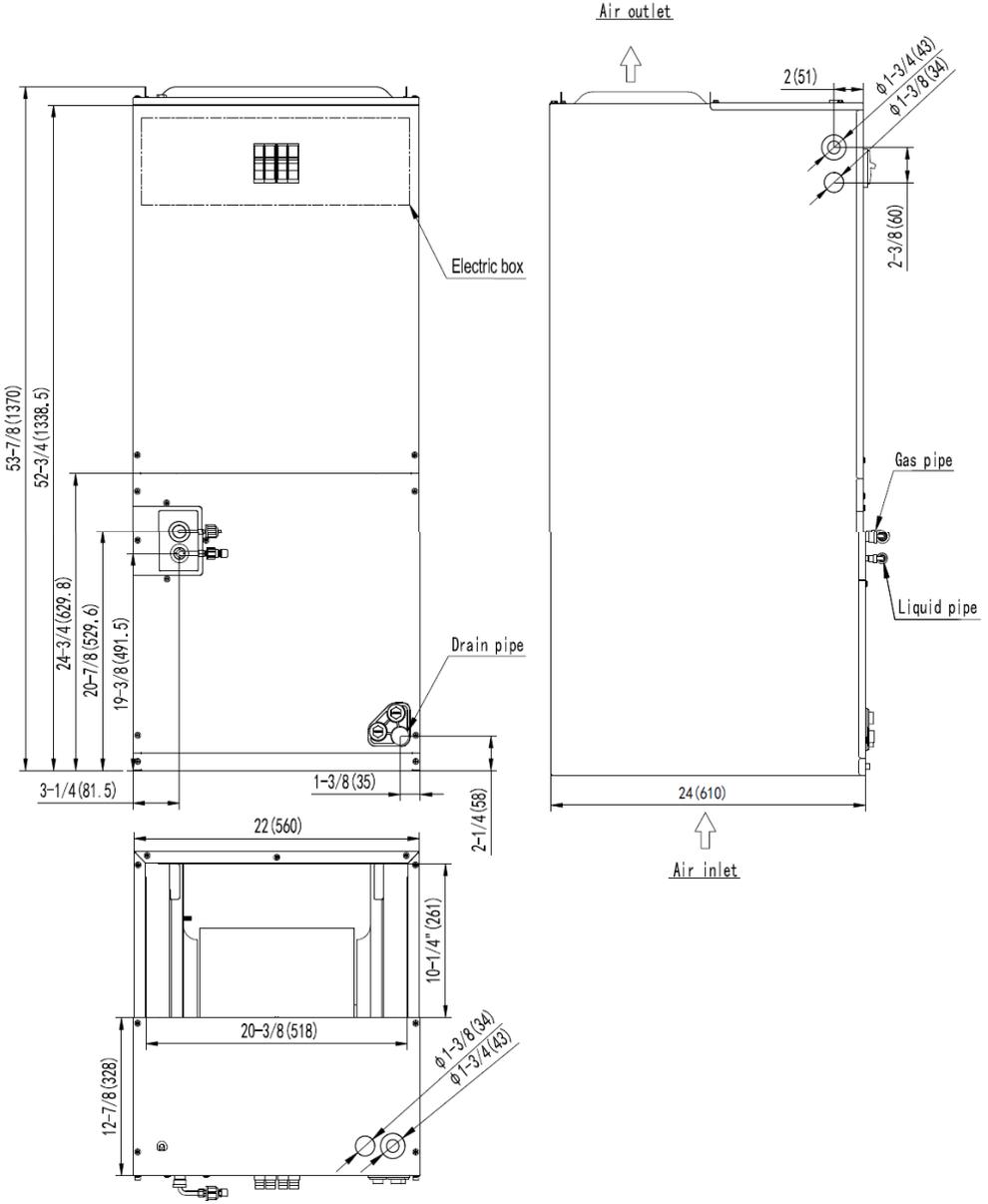
### Operation temperature

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

**DIMENSIONAL DRAWING**  
**Air Handler**

48K/60K

Unit : in.(mm)



**DIMENSIONAL DRAWING**  
**Condensing Units**

Unit: inch(mm)

