YORK®
Heating and Air Conditioning

SINGLE PIECE AIR HANDLERS

FOR USE WITH SPLIT-SYSTEM COOLING & HEAT PUMPS

MODELS: AHX61 SERIES

AHRI CERTIFIED™ www.ahridirectory.org

C ETL CM LISTED US
Intertek

Due to continuous product improvement, specifications are subject to change without notice.

Visit us on the web at:

www.upgnet.com and www.york.com

Additional rating information can be found at:

www.ahridirectory.org

DESCRIPTION

This air handler line offers the ultimate in application flexibility. The AHX (with high efficiency motor) models can only be ordered as multi-position. These multi-position models can be installed in downflow, upflow, horizontal right or left hand airflow positions.

All AHX61 series air handlers utilize a factory installed TXV to provide our customers with the optimum performance and refrigerant control required for 16 SEER split systems.

FEATURES

DX Coil - High efficiency rifled copper tubes/enhanced aluminum fins provide maximum heat transfer. All coils immersion tested at 500 psi then nitrogen pressurized and factory sealed for maximum reliability.

Thermal Expansion Valve - Provides the ultimate refrigerant control required for today's high efficient product. All AHX61 models come with a factory installed R410A TXV.

Insulated Cabinet - The AHX61 air handler cabinets are thermally insulated with 1/2" foil faced insulation to prevent sweating and mold growth, to encapsulate glass fibers, and to provide excellent R-value. For applications in extreme humidity conditions, a 1" insulation option is also available.

Durable Finish Inside and Out - Air handler casings are made of pre-painted galvanized steel which provides a better paint to steel bond that resists corrosion and rust creep. All internal coil sheet metal parts are made of G90 galvanized.

High Efficiency Blowers - All models use high efficiency brushless DC motors to provide cooling SEER rating enhancement.

Electric Heat Kits - Controls are accessible from the front for easy service. Electrical connections can be made from the top or left. Disconnect does not protrude through the wall panel. Fan time delay standard for increased efficiency.

Filters - All models have an internal filter rack provided and ship with a disposable filter in the unit.

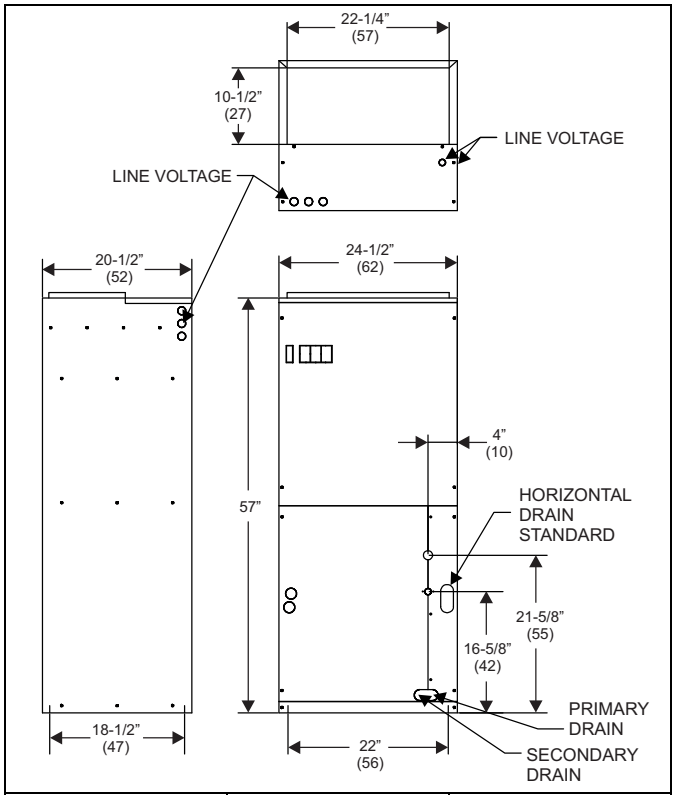
ACCESSORIES

Refer to Price Manual for specific model numbers.

Non-Combustible Bases - A combustible floor base accessory is available, if required by local codes, when the air handler is installed in the downflow position on a combustible material.

Electric Heat Kits –Heat kits available with either circuit breakers or terminal blocks. Available from 3 to 30 kW. Models with electric heat include sequencers and temperature limit switches for safe, efficient operation.

DIMENSIONS & DUCT CONNECTION DIMENSIONS



Filter Size	Ship Weight (LBS)	Skid Quantity
20 x 20	200	3

LIMITATIONS

These units must be wired and installed in accordance with all national and local safety codes. Voltage limits are as follows:

Air Handler Voltage	Voltage Code	Normal Operating Voltage Range[1]
208/230-1-60	06	187-253

1. Rated in accordance with ARI Standard 110, utilization range “A”.

Airflow must be within the minimum and maximum limits approved for electric heat, evaporator coils and outdoor units.

Entering Air Temperature Limits			
Wet Bulb Temp. °F		Dry Bulb Temp. °F	
Min.	Max.	Min.	Max.
57	72	65	95

UNIT DATA

Physical and Electrical Data

Blower - Diameter x Width		12 x 9
Motor	**HP**	1
	Nominal RPM	1075
Voltage		208/230
Amps	**Full Load (230)**	6.9/7.6
Filter[1]	**Type**	DISPOSABLE
	Size	20 x 20 x 1
Shipping / Operating Weight (lbs.)		215

1. Factory Supplied.

COIL TECHNICAL DATA

Models	Application	Refrig. Conn. Types	Face Area (Sq. Ft.)	Rows Deep	Fin Per In.	Coil Size	Tube Geometry	Tube Dia.	Fin Type	TXV
AHX61D4PH21 AHX61D4P121	Cooling/ Heat Pump	Sweat	5.78	4	14	(2) 26 x 16	1 x 0.866	3/8	Enhanced	Factory Installed

COOLING CAPACITY - WITH R-410A SPLIT-SYSTEM AIR CONDITIONERS

Condensing Unit	SEER	EER @ 95	Sensible Capacity	Total Capacity	Static Pressure	CFM	EER @ 82	Cap @ 82
YCJD48S41S1	13.5	11.2	37,162	48000	0.20	1,600	15.43	51,168
YCJD60S41S1	13.5	11.2	45,476	59000	0.29	2,000	15.43	62,894
YCJF48S41S1	16	13	37,162	48000	0.20	1,600	18.29	51,168
YCJF60S41S1	15.5	12.55	44,608	58500	0.29	2,000	17.71	60,229
CZF06013(C)	16	13.4	43,553	54000	0.29	2,000	18.29	57,564
CZH04811(C)	17	13	36,741	47500	0.20	1,600	19.43	50,102
CZH06011(C)	16	13	45,476	59000	0.29	2,000	18.29	62,894

COOLING CAPACITY - WITH R-410A SPLIT-SYSTEM HEAT PUMPS

Condensing Unit	SEER	EER@95	Sensible Capacity	Total Capacity	Static Pressure	CFM	EER@82	Cap@82
YHJF48S41S4	15.5	12.5	36960	48000	0.20	1,600	17.71	51168
YHJF60S41S4	15.5	12	45240	58500	0.29	2,000	17.71	61828
YZF06013(C)	15.5	12	45240	58000	0.29	2,000	17.71	61828
YZH04811(C)	17.5	12.5	36960	48000	0.20	1,600	20.00	51168
YZH06011(C)	16.5	11.5	44850	57500	0.29	2,000	18.86	61295

HEATING CAPACITY - WITH R-410A SPLIT-SYSTEM HEAT PUMPS

Condensing Unit	CAP@47	COP@47	HSPF	CAP@17	COP@17
YHJF48S41S4	48500	3.92	9.2	31800	2.66
YHJF60S41S4	58500	3.8	9.2	40000	2.68
YZF06013(C)	58500	3.88	9.2	38500	2.74
YZH04811(C)	48500	4	9.7	33000	3.14
YZH06011(C)	57000	3.84	9.3	39500	2.74

HSPF (Heating Seasonal Performance Factor) is the total heating output during a normal annual usage period for heating divided by the totalelectric power input during the same period.

APPLICATION FACTORS – RATED CFM VS. ACTUAL CFM

% of Rated Airflow	80%	90%	Rated CFM	110%	120%
Capacity Factor	0.96	0.98	1.00	1.02	1.03

kW & MBH CONVERSIONS - FOR TOTAL POWER INPUT REQUIREMENT

FOR	208V	OPERATION MULTIPLY	240V	TABULATED kW & MBH BY	.751
	230V		240V		.918

Electrical Data - Cooling Only (60 Hz)

Total Motor Amps		Minimum Circuit Ampacity		Max. O.C.P.[1] Amps/Type	Minimum Wire Size A.W.G.
60 Hertz		60 Hertz			
208V	230V	208V	230V		
2.8	2.8	3.5	3.5	15	14

1. OCP = Over Current Protection device, must be HACR type Circuit Breaker or Time Delay fuse.

Electrical Data - 208/230-1-60

Heater Models*	Max. Static	Min. Speed Tap	Total Heat[1]				kW Staging					
			kW		MBH		W1 Only		W2 Only		W1 + W2	
			208V	230V	208V	230V	208V	230V	208V	230V	208V	230V
S1-ECL05	0.5	4	3.8	5	13	17	3.8	5	3.8	5	3.8	5
S1-ECL10	0.5	4	7.5	10	25.6	34.1	7.5	10	7.5	10	7.5	10
S1-ECL15	0.5	4	11.3	15	38.5	51.2	3.8	5	7.5	10	11.3	15
S1-ECL20	0.5	3	15	20	51.2	68.2	7.5	10	7.5	10	15	20
S1-ECL25	0.5	2	18.8	25	64	85.3	7.5	10	11.3	15	18.8	25
S1-ECL30	0.5	1	22.5	30	76.8	102.4	7.5	10	15	20	22.5	30

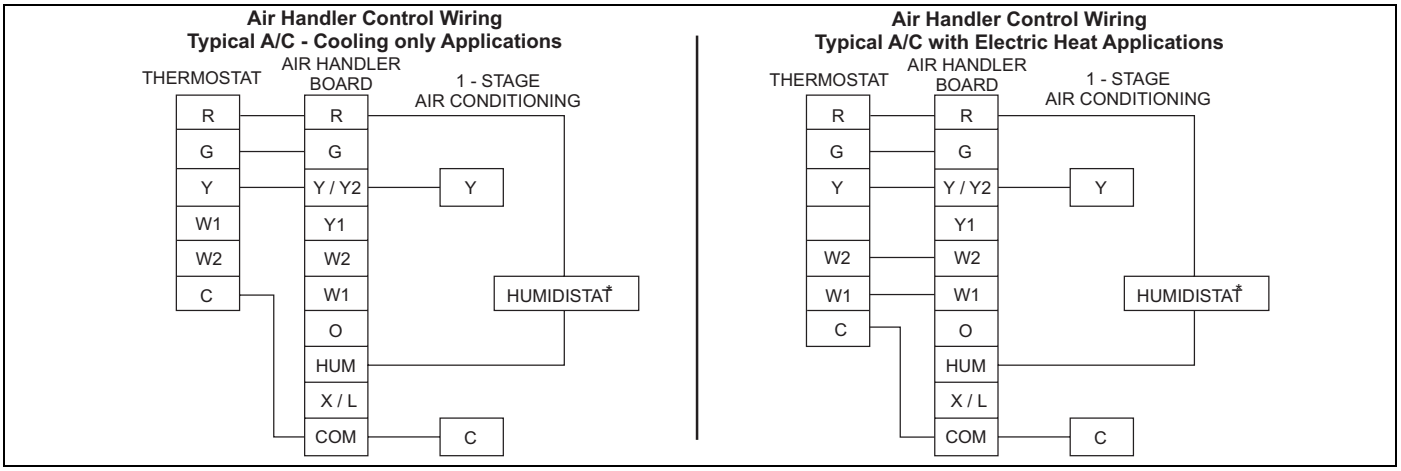
1. See conversion Table 8.
* May be 0 (no breaker) or 1 (with breaker).

Electrical Data - (For Single Source Power Supply) - Copper Wire - 208/230-1-60

Heater Models*	Heater Amps 240V	Field Wiring					
		Min. Circuit Ampacity		Max. O.C.P.[1] Amps/Type		75°C Wire Size - AWG	
		208V	230V	208V	230V	208V	230V
S1-ECL05	20.8	31	36	35	40	8	8
S1-ECL10	41.7	54	60	60	60	6	6
S1-ECL15	62.5	76	88	80	90	4	3
S1-ECL20	83.3	99	114	100	125	3	1
S1-ECL25	104.2	122	140	125	150	1	1/0
S1-ECL30	125	144	166	150	170	1/0	2/0

1. O.C.P. = Over Current Protection device, must be HACR type Circuit Breaker or Time Delay fuse.
* May be 0 (no breaker) or 1 (with breaker)

COOLING MODELS WITH ELECTRIC HEAT WIRING



* Optional dehumidification humidistat switch contacts open on rise.

Notes:

1. "Y" Terminal on Air Handler Control Board must be connected for full CFM and applications requiring 60 second blower off delay for SEER enhancement.
2. Move HUM STAT Jumper on AH Control Board to YES/NO position.
3. MODE Jumper on AH control board should be set to HP for heat pumps.
4. To change quantity of heat during HP defrost cycle - Reverse connections at W1 & W2 on Air Handler Control Board.

AIRFLOW

Air Flow Data - 60 Hz Models - 208 Volt

Blower Motor Speed	208 Volt									
	CFM[1] @ External Static Pressure - IWC									
	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
TAP 1	1816	1788	1765	1730	1700	1608	1544	1469	1386	1295
TAP 2	1564	1526	1500	1472	1440	1348	1258	1171	1081	992
TAP 3	1391	1369	1334	1295	1260	1210	1152	1089	1002	914
TAP 4	1230	1208	1170	1134	1095	1035	968	884	776	640
TAP 5	1816	1788	1765	1730	1700	1608	1544	1469	1386	1295

NOTE: Air flow data shown above 1/2" w.c. external static pressure is for REFERENCE ONLY. Maximum allowable external static when electric heat is used is limited to 1/2" w.c. Maximum allowable external static pressure may also be limited by minimum CFM requirements for proper Heat Pump operation.

1. Dry coil conditions only, tested without filters.

† Speed temp High #1 not recommended for the unit.

Air handler units are UL Listed up to 0.5" w.c. external static pressure, including air filter, wet coil, and largest kW size heater, unless otherwise noted.

Air Flow Data - 60 Hz Models - 230 Volt

Blower Motor Speed	230 Volt									
	CFM[1] @ External Static Pressure - IWC									
	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
TAP 1	2018	1987	1961	1922	1889	1787	1715	1232	1540	1439
TAP 2	1738	1696	1667	1636	1600	1498	1398	1301	1201	1102
TAP 3	1546	1521	1482	1439	1400	1344	1280	1204	1113	1015
TAP 4	1367	1342	1300	1260	1217	1150	1075	982	862	711
TAP 5	2018	1987	1961	1922	1889	1787	1715	1632	1540	1439

NOTE: Air flow data shown above 1/2" w.c. external static pressure is for REFERENCE ONLY. Maximum allowable external static when electric heat is used is limited to 1/2" w.c. Maximum allowable external static pressure may also be limited by minimum CFM requirements for proper Heat Pump operation.

1. Dry coil conditions only, tested without filters.

† Speed temp High #1 not recommended for the unit.

Air handler units are UL Listed up to 0.5" w.c. external static pressure, including air filter, wet coil, and largest kW size heater, unless otherwise noted.

665349-YTG-B-0214
Supersedes: 665349-YTG-A-1210

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