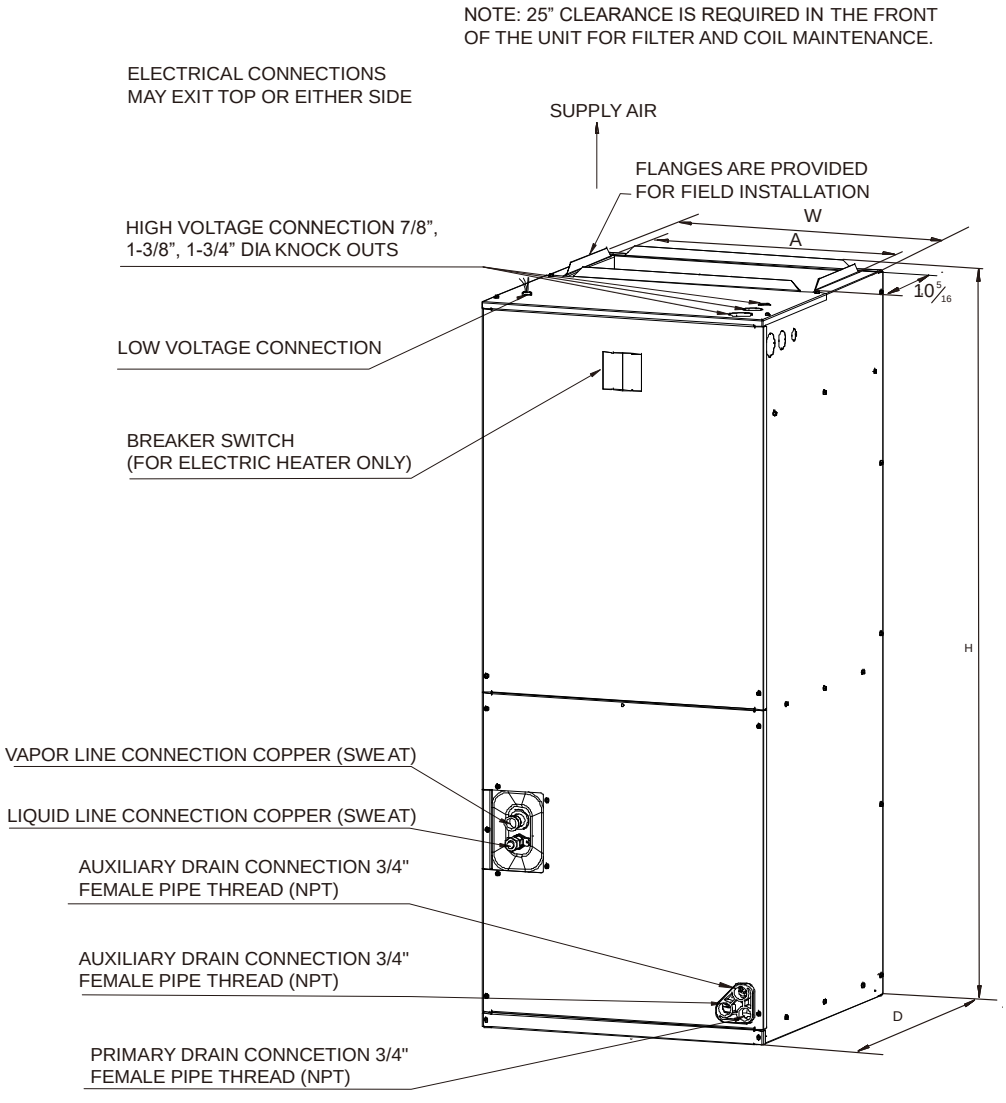
Submittal

TAG:

Air Handlers
A4AH4P31E1B00A
Cooling capacity: 24 kBTU/h



UPFLOW UNIT SHOWN;
UNIT MAY BE INSTALLED UPFLOW, DOWNFLOW, HORIZONTAL RIGHT OR LEFT AIR SUPPLY.

	A4AH4P31E1B00A
UNIT DIMENSION AND WEIGHTS	
Height(in.)	46-1/2
Width(in.)	19-5/8
Depth(in.)	21-5/8
Weight(lbs.)	128

Specifications

	A4AH4P31E1B00A
NOMINAL RATING	
Cooling (BTU/h)	24,000
External Static Pressure(in.w.c)	0.6
ELECTRICAL DATA	
Voltage / Phase(60Hz)	208/230/1
Min. / Max. Voltage	187/253
Min. Circuit Amps	2.9
Max. Overcurrent Protection	15
FAN MOTOR	
Motor Type	PSC
Capacitor (uF)	10
Horsepower (HP)	1/4
Rated RPM	903
Full Load Amps (FLA)	2.3
FAN BLOWER	
Material	Metal
Type	Centrifugal
Diameter(in.)	13
Height(in.)	10-5/8
EVAPORATOR COIL	
Type	Tube & Fin
Tube Material	Aluminum
Tube Size(in.)	9/32
REFRIGERANT CONNECTION SIZE	
Liquid Line Size (O.D.)	3/8
Suction Line Size (O.D.)	3/4

Airflow Data

Air Handler Model	Outdoor Unit Size(Tons)	Motor Speed		CFM Wet Coil without filter and Electric Heat								
				External Static Pressure-Inches W.C.[kPa]								
				0[0]	0.1[.025]	0.2[.050]	0.3[.075]	0.4[0.100]	0.5[0.125]	0.6[0.150]	0.7[0.175]	0.8[0.200]
24	2	Low	CFM	999	953	905	847	757	681	610	543	411
			Watts	316	310	306	302	288	279	270	256	240
			Current/A	1.38	1.36	1.34	1.32	1.28	1.24	1.21	1.16	1.1
		Medium	CFM	1176	1127	1086	1028	944	842	746	668	569
			Watts	342	336	334	326	315	303	292	281	266
			Current/A	1.49	1.47	1.45	1.42	1.38	1.33	1.29	1.25	1.19
		High	CFM	1409	1359	1306	1253	1192	1108	986	870	743
			Power/W	456	446	438	429	419	404	384	368	348
			Current/A	2.01	1.96	1.93	1.9	1.86	1.8	1.73	1.67	1.61

--- Shaded boxes represent airflow outside the required 300-450 cfm/ton,which are not recommended.

NOTES: Airflow based upon cooling performance at 230V with no electric heat and no filter.

The air distribution system has the greatest effect on airflow. The duct system is totally controlled by the contractor. For this reason, the contractor should use only industry-recognized procedures.

Heat pump systems require a specified airflow for electric heat operating. Each ton of cooling requires between 350 and 450 cubic feet of air per minute (CFM), or 400 CFM nominally.

Duct design and construction should be carefully done. System performance can be lowered dramatically through bad planning or workmanship.

Air supply diffusers must be selected and located carefully. They must be sized and positioned to deliver treated air along the perimeter of the space. If they are too small for their intended airflow, they become noisy. If they are not located properly, they cause drafts. Return air grilles must be properly sized to carry air back to the blower. If they are too small, they also cause noise.

The installers should balance the air distribution system to ensure proper quiet airflow to all rooms in the home. This ensures a comfortable living space.

An air velocity meter or airflow hood can be used to balance and verify branch and system airflow (CFM).

IMPORTANT:

1. If unit is converted to downflow, the airflow for model 18 must be between 350 and 450 cfm/ton.
2. When model 44 used for mobile home, you need to ensure that the air volume is not less than 1335 CFM.
3. When model 48 used for mobile home, you need to ensure that the air volume is not less than 1584 CFM.

Electrical data

MODEL	VOLTAGE	HERTZ	HP	SPEEDS	CIRCUIT AMPS.	MAXIMUM CIRCUIT PROTECTOR
24	208/230	60	1/5	3	2.6	15(A)

Heater Kits

Model	Air Handler Capacity (kBTU/h)	Electric Heat(kW)	Min. Circuit Ampacity		Max. Fuse or Breaker (HACR) Ampacity		Fan speed (AC/HP)		
			240V	208V	240V	208V	Low	Medium	High
A4AH4P31E1B00A									
EHK-05A(UL)		5	29	25.5	30	30	●	●	●
EHK-08A(UL)	24	7.5	42	36.8	45	40	●	●	●
EHK-10A(UL)		10	55	48.1	60	50	●	●	●

NOTE: HEATER MODEL NUMBER DIGITS "*" : A,B

Heat kit suitable for AHU 4-way position installation.

Ampacities for MCA and Fuse/breaker including the blower motor.

Heat pump systems require a specified airflow. Each ton of cooling requires between 350 and 450 cubic feet of air per minute (CFM), or 400 CFM nominally.

Electric Heater Kits

NO.	Kit	Description	Ref.Air Handler Use
1	EHK-05A(UL)	5kW Heat Strip	18/24//30/36/42/48/60
2	EHK-08A(UL)	7.5kW Heat Strip	18/24//30/36/42/48/60
3	EHK-10A(UL)	10kW Heat Strip	18/24//30/36/42/48/60

NOTE: HEATER MODEL NUMBER DIGITS "*" : A,B

Features:

- Available for cooling and heat pump applications.
- All-aluminum tubes & fins.
- Common Factory-sealed cabinet certified to achieve 2% or less leakage rate at 1.0 inch water column.
- Multi-position Installation.
- Horizontal and vertical condensate drain pans standard.
- Blower and coil easy slide out for ease of maintenance.
- Field Installed heater kits are optional: 5/7.5/10/15/20kW.
- AHRI Listed & ETL Certified.

Note: Product specifications change from time to time as product improvements and developments are released and may vary from those in this document. Tuttokool has a policy of continuous product and product data improvement and it reserves the right to change design and specification without notice.