

# 7AH1AC

Upflow/Horizontal | PSC Motor | TXV Furnished | R-410A / R-454B | 60Hz

## RESIDENTIAL PRODUCT SPECIFICATIONS (EHB)

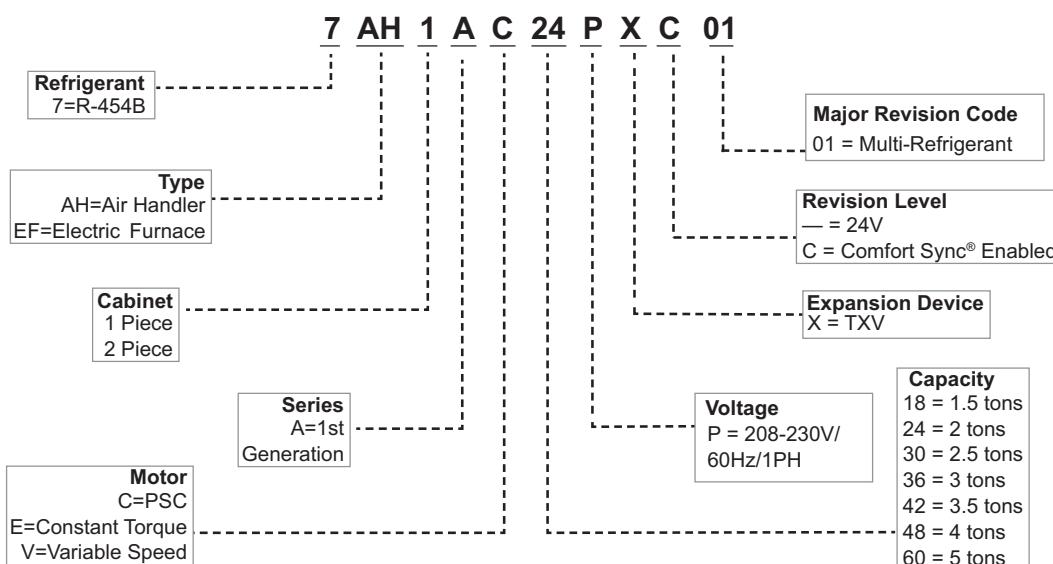
1.5 to 3.5 Tons  
Optional Electric Heat - 5 to 15 kW



**NOTE** - Air Handlers are furnished with a factory installed R-410A expansion valve. As an option, a R-454B expansion valve may be substituted. See page 8.

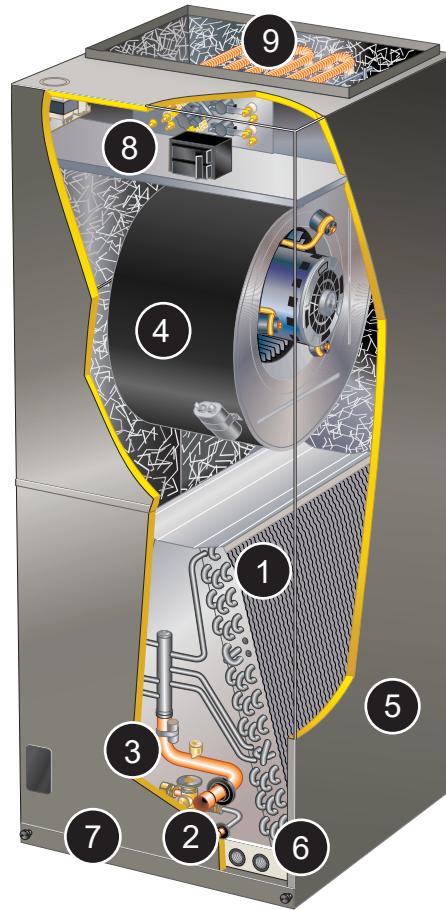
**NOTE** - See R-454B Refrigerant Conversion Table on page 8 for additional components required for conversion.

### MODEL NUMBER IDENTIFICATION



## FEATURE HIGHLIGHTS

1. Allied Omniduard® Coil
2. Refrigerant Line Connections
3. Check and Expansion Valve
4. PSC Blower Motor
5. Heavy Gauge Steel Cabinet
6. Anti-Microbial Dual Position Drain Pans
7. Built in Filter Rack
8. Transformer and Blower Relay
9. Electric Heat (optional)



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## APPROVALS AND WARRANTY

### APPROVALS

- Tested with matching air conditioners and heat pump units in accordance with AHRI Standard 210/240-2023
- AHRI Certified system match-ups and expanded ratings, visit [www.alliedratings.com](http://www.alliedratings.com)
- ETL Listed to US and Canadian safety standards and components within are bonded for grounding to meet safety standards for servicing required by NEC and CEC
- Optional electric heaters are ETL listed and rated in accordance with US Department of Energy (DOE) test procedures and Federal Trade Commission (FTC) labeling regulations
- Blower performance data according to unit tests conducted in Allied air test chamber
- Approved for installation in manufactured housing and mobile homes.
- ISO 9001 Registered Manufacturing Quality System

### WARRANTY

10-years limited warranty on all parts, extended warranty available. Warranty provides for a total of 10-years of limited warranty. Coverage (Standard 5-year limited parts warranty plus an additional 5-year limited extended parts warranty).

Warranty must be registered online within 60 days of installation to qualify for 10-year coverage.

Unregistered equipment defaults to 5-year coverage.

See full warranty at [www.alliedair.com](http://www.alliedair.com) for terms, conditions, and exclusions.

## FEATURES

### APPLICATIONS

- 1.5 to 3.5 ton nominal sizes
- Upflow or horizontal applications

**NOTE** - Downflow applications require optional conversion kit.

- Applicable to expansion valve systems in cooling applications and check and expansion valve systems in heat pump applications
- Wide-range check and expansion valve is factory installed

**NOTE** - Coils can be field converted for use with R-454B refrigerant.

- Optional field installed electric heaters available in several sizes for additive heating capacity

### REFRIGERANT SYSTEM

1

#### Omniguard® Coil

- Enhanced aluminum alloy tube/enhanced fin coil for superior corrosion resistance
- Aluminum tubing, hairpins, distributor and header tubes
- Ripple-edged aluminum fins
- Twin coil construction assembled in a "A" configuration for large surface area
- Provides excellent heat transfer and low air resistance for maximum efficiency
- Precise circuiting for uniform refrigerant distribution
- Lanced fins provide maximum exposure of fin surface to air stream
- Helical grooved tubing provides superior heat transfer
- Coil thoroughly factory tested under high pressure to ensure leakproof construction

2

#### Refrigerant Line Connections

- Copper refrigerant sweat connections on both liquid and suction lines for easy brazing
- Lines extend outside of the cabinet for ease of connection
- See dimension drawings for locations

3

#### R-410A Check and Expansion Valve

- For use with R-410A systems
- Wide range valve with Chatleff style fitting
- Factory installed on all models, internal to cabinet

## FEATURES

### **R-454B REFRIGERANT CONVERSION**

Additional Components are required for conversion to R-454B Refrigerant:

- Refrigerant Detection System (RDS) Air Handler Sensor Kit
- Refrigerant Detection System (RDS) Non-Communicating Blower Control Board
- R-454B Check and Expansion Valve

#### Optional Accessories

##### Refrigerant Detection System (RDS) Air Handler Sensor Kit

- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- Consists of Refrigerant Detection System (RDS) sensor, mounting brackets and A2L labeling
- See R-454B Refrigerant Conversion Table on page 8

##### Refrigerant Detection System (RDS) Blower Control Board

###### Communicating Blower Control Board (Universal)

- Communicating Blower Control Board and Sensor can be used universally with any branded communicating air handler or any non-communicating 24 volt air handler

###### Non-Communicating Blower Control Board

- Non-Communicating Blower Control Board and Sensor can be used with any non-communicating 24 volt air handler

###### Standard Features

- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- Connects to the RDS sensor furnished with the RDS Air Handler Sensor Kit
- Supports up to two RDS Sensors (factory setting)
- Used as interface between indoor unit and thermostat to control system in case of a refrigerant leak
- If a leak is detected the refrigerant detection system will prevent compressor and heating operation until a leak is no longer detected
- Refrigeration detection system also energizes the blower if a leak is detected to mitigate any concentrations of refrigerant from the conditioned space
- Multi-color LED for system status and as an aid in troubleshooting
  - Flashing LED codes for system status (Green/Blue) and diagnosing Sensor errors (Red)

- Alarm relay can trigger an external alarm if a leak is detected
- Zone relay opens all zone dampers (if part of a zoning system) if a leak is detected
- Power is disabled to non-communicating thermostats to prevent demand if a leak is detected
- On system start-up blower will run for five minutes and any thermostat demands are disabled
- Dimensions (H x W x D): 7-7/16 x 7-7/16 x 2-1/2 (189 x 189 x 127 mm)
- See R-454B Refrigerant Conversion Table on page 8

**NOTE** - Refer to the Installation Instructions for additional information.

#### R-454B Check and Expansion Valve

- For use with R-454B systems
- Wide range valve with Chatleff style fitting
- Replaces factory installed TXV, internal to cabinet
- See Optional R-454B TXV Substitution table on page 8

## 4 BLOWER

### Permanent Split Capacitor (PSC) Motor (018 Through 042 Models)

- Multi-speed PSC motor
- Choice of blower speeds
- Speed changes easily accomplished by a simple wiring change
- Blower is easily removed from unit for servicing

### Time Delay Blower Relay

- Relay allows one second blower "on" delay before continuous fan or cooling operation and 45 second blower "off" delay after continuous fan or cooling operation

## FEATURES

### 5 CABINET

- Constructed of heavy gauge galvanized steel
- Pre-painted cabinet finish
- Completely insulated with foil faced fiberglass insulation
- Removable panels provide complete service access
- Filter access door for easy filter replacement
- Thumbscrews hold filter door in place
- Electrical inlets provided in sides and top of cabinet
- See dimension drawing for locations
- Plugs in cabinet for drain connections for upflow (left and right) and horizontal applications
- See dimension drawing

#### Low Leakage Cabinet

- All models have less than 2% air leakage and meet ANSI/ASHRAE Standard 193-2010 "Method of Test for Determining the Air Tightness of HVAC Equipment"

#### Upflow/Horizontal Capability (Optional Downflow)

- Shipped for upflow and horizontal right-hand discharge
- May be field converted to horizontal left-hand air discharge by repositioning horizontal drain pan
- Optional downflow kit required for field conversion

### 6 Anti-Microbial Dual Position Drain Pans

- Anti-Microbial additive resists growth of mold and mildew on drain pan which improves indoor air quality and reduces drain line blockage
- Drain pans designed for upflow or horizontal applications
- Deep, corrosion resistant high temperature engineered polymer drain pans have dual pipe drains
- See dimension drawing

### 7 FILTER

- Disposable 1 inch filter is furnished
- Filter rack furnished in cabinet for easy filter installation
- See Specifications tables for filter sizes

### 8 Transformer

- 24 volt transformer and blower cooling relay furnished as standard
- Factory installed in the unit control box
- Terminal strip furnished

### CABINET (Continued)

#### Optional Accessories

##### Downflow Conversion Kit

- Required for field conversion to downflow position
- Kit consists of insulated downflow drain pan, insulated drain pan drip shields, coil drip shields, seal plates and support brackets for repositioning coil and drain pan

##### Horizontal Support Frame Kit

- Provides support of unit in horizontal applications

- Consists of (2) 1 x 1-1/2 x 32-5/8 in. and (2) 1 x 3 x 53-7/8 in. painted heavy gauge cold rolled steel support channels with assembly and suspending holes
- Bolts and nuts furnished for field assembly
- Suspending rods must be field provided

#### Side Return Unit Stand (Upflow Only)

- Raises unit 16 in. above floor for side return air duct connection
- Eliminates need for wooden platform construction
- All aluminum construction
- Two adjustable frames fit all sizes

#### Wall Hanging Bracket Kit (Upflow Only)

- Allows unit to be hung on wall at any height
- Consists of heavy-gauge steel support brackets (one for air handler, one for wall mount)
- Screws furnished for fastening one bracket to unit
- Bolts for fastening one bracket to wall are field provided

#### High Performance Economizer (Commercial Applications Only)

- Designed for applications requiring outdoor air to be utilized in a commercial HVAC system
- Allows the entry of fresh outdoor air for free cooling, reducing the requirement for mechanical cooling
- Heavy gauge galvanized steel cabinet lined with thick fiberglass insulation
- Mixed air sensor, outdoor air sensor and 24VAC transformer furnished
- Approved for California Title 24 building standards
- ASHRAE 90.1-2010 compliant
- See separate Product Specifications document for additional information and available control and sensor options

## FEATURES

### 9 OPTIONAL ELECTRIC HEAT

- ETL listed
- Field install internal to unit cabinet
- Available in several kW sizes
- See Electric Heat tables
- Helix wound nichrome heating elements exposed directly in air stream resulting in instant heat transfer, low element temperatures and long service life
- Each element equipped with accurately located limit control with fixed temperature off setting and automatic reset
- Thermal sequencer relay brings elements on and off line, in sequence and equal increments, with time delay between each
- Initiates and terminates blower operation
- Heating control relay(s) furnished as standard
- Factory assembled with controls installed and wired
- Electric heat control wiring plugs into mating connector on air handler unit

#### Circuit Breaker (CB) Models

- All "CB" model heaters are equipped with circuit breakers for overload and short circuit protection
- Factory wired and mounted on electric heat unit
- Current sensitive and temperature actuated
- Manual reset
- Flexible plastic circuit breaker cover protects circuit breaker in areas with high humidity or unconditioned areas to prevent nuisance tripping
- Circuit breakers qualify as disconnect means at unit in many areas, eliminate the need for field provided disconnect
- Consult local electrical code in your area

#### Optional Accessories

##### Single-Point Power Source Control Box

- Control Box may be used with optional electric heat when single power supply is connected to multi-circuit electric heat
- Field installs external to the unit cabinet on either side or top
- Constructed of heavy gauge steel, baked enamel finish, pre-punched mounting holes, electrical inlet knockouts, and terminal strip
- Removeable cover provides easy access
- Dimensions (H x W x D) - 7 x 7 x 4 in.

## SPECIFICATIONS

Size	018	024	030	036	042
<b>Nominal Tonnage</b>	1.5	2	2.5	3	3.5
<b>Refrigerant Type</b>	R-410A	R-410A	R-410A	R-410A	R-410A
<b>Connections</b>	Liquid line (OD) sweat - in.	3/8	3/8	3/8	3/8
	Suction line (OD) sweat - in.	3/4	3/4	3/4	7/8
	Condensate drain (FPT) - in.	(2) 3/4	(2) 3/4	(2) 3/4	(2) 3/4
<b>Indoor Coil</b>	Net face area - ft. <sup>2</sup>	3.30	3.77	4.72	5.66
	Tube diameter - in.	3/8	3/8	3/8	3/8
	Rows	3	3	3	3
	Fins - in.	15	15	15	15
<b>Blower</b>	HP	1/5	1/3	1/2	1/3
	Wheel nominal diameter x width - in.	9 x 6	9 x 6	10 x 8	10 x 8
	Air volume range - cfm	420 - 920	590 - 1105	770 - 1310	805 - 1560
<b><sup>1</sup> Filters</b>	Size - in.	15 x 20 x 1	15 x 20 x 1	15 x 20 x 1	18 x 20 x 1
<b>Shipping Data - lbs.</b>		129	136	143	169

## ELECTRICAL DATA

Line voltage data (Volts-Phase-Hz)	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60	208/230-1-60
<sup>2</sup> Maximum overcurrent protection (MOCP) amps (unit)	15	15	15	15	15
<sup>3</sup> Minimum circuit ampacity (MCA) (unit)	5.0	5.0	5.0	5.0	5.0
Blower Motor Full Load Amps	1.1	1.6	2.2	2.0	2.5

## OPTIONAL ACCESSORIES - ORDER SEPARATELY

Description	018, 024, 030	036, 042
Downflow Conversion Kit	<b>Y9658</b>	<b>Y9659</b>
Electric Heat	See Electric Heat Data Tables on page 10	
Horizontal Support Frame Kit	<b>56J18</b>	<b>56J18</b>
Side Return Unit Stand (Upflow Only)	<b>45K32</b>	<b>45K32</b>
Single-Point Power Source Control Box (for Electric Heat)	<b>21H39</b>	<b>21H39</b>
Wall Hanging Bracket Kit (Upflow Only)	<b>45K30</b>	<b>45K30</b>
High Performance Economizer (Commercial Only)	<b>10U53</b>	<b>10U53</b>

## R-454B REFRIGERANT CONVERSION - ORDER SEPARATELY

Description	Order No.
Refrigerant Detection System (RDS) Coil Sensor Kit	<b>27J27</b>
Refrigerant Detection System (RDS) Blower Control Board	Any Communicating Air Handler or any Non-Communicating 24V Air Handler (Universal)
	Any Non-Communicating 24V Air Handler

NOTE - Communicating Blower Control Board and Sensor can be used universally with communicating air handler or any non-communicating 24 volt air handler.  
Non-Communicating Blower Control Board and Sensor can be used with any non-communicating 24 volt air handler.

NOTE - Order R-454B Expansion Valve separately.

## OPTIONAL R-454B TXV SUBSTITUTION

NOTE - Additional components are required for R-454B Conversion. See Optional Accessories table.

Size	Order Number
018	<b>26Z70</b>
024	<b>26Z70</b>
030	<b>26Z70</b>
036	<b>26Z70</b>
042	<b>26Z71</b>

## REPLACEMENT CIRCUIT BREAKERS

Voltage	Description	Order Number
208/240V - 1 Phase	25 amp, 2 pole	<b>41K13</b>
	30 amp, 2 pole	<b>17K70</b>
	35 amp, 2 pole	<b>72K07</b>
	40 amp, 2 pole	<b>49K14</b>
	45 amp, 2 pole	<b>17K71</b>
	50 amp, 2 pole	<b>41K12</b>
	60 amp, 2 pole	<b>17K72</b>

## INSTALLATION CLEARANCES WITH ELECTRIC HEAT

Cabinet	0 inch (0 mm)
To Plenum	0 inch (0 mm)
To Outlet Duct	0 inch (0 mm)
Floor	0 inch (0 mm)
Service / Maintenance	See Note #1

<sup>1</sup> Front service access - 24 inches (610 mm) minimum.

NOTE - If cabinet depth is more than 24 inches (610 mm), allow a minimum of the cabinet depth plus 2 inches (51 mm).

## BLOWER DATA

### 7AH1AC-018 PERFORMANCE

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds					
	High		Medium		Low	
	cfm	Watts	cfm	Watts	cfm	Watts
0.10	920	264	690	190	540	144
0.20	880	251	670	183	525	140
0.30	855	238	640	176	505	136
0.40	790	224	605	167	470	130
0.50	710	210	550	155	420	122

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place.  
Electric heaters have no appreciable air resistance.

### 7AH1AC-024 PERFORMANCE

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds					
	High		Medium		Low	
	cfm	Watts	cfm	Watts	cfm	Watts
0.10	1105	342	1010	280	675	210
0.20	1045	322	980	262	675	202
0.30	1000	307	940	247	655	192
0.40	915	284	805	235	630	180
0.50	855	268	740	216	590	170

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place.  
Electric heaters have no appreciable air resistance.

### 7AH1AC-030 PERFORMANCE

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds					
	High		Medium		Low	
	cfm	Watts	cfm	Watts	cfm	Watts
0.10	1310	496	1080	391	870	310
0.20	1260	466	1055	378	870	301
0.30	1215	449	1025	361	855	288
0.40	1155	431	985	343	810	278
0.50	1085	408	935	325	770	265

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place.  
Electric heaters have no appreciable air resistance.

### 7AH1AC-036 PERFORMANCE

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds					
	High		Medium		Low	
	cfm	Watts	cfm	Watts	cfm	Watts
0.10	1560	532	1275	402	1020	295
0.20	1520	518	1240	388	970	287
0.30	1445	502	1190	375	955	280
0.40	1395	480	1150	363	910	270
0.50	1325	460	1085	346	805	254

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place.  
Electric heaters have no appreciable air resistance.

### 7AH1AC-042 PERFORMANCE

External Static Pressure in. w.g.	Air Volume / Watts at Various Blower Speeds					
	High		Medium		Low	
	cfm	Watts	cfm	Watts	cfm	Watts
0.10	1815	674	1525	498	1300	394
0.20	1755	652	1495	486	1275	387
0.30	1695	634	1450	473	1250	376
0.40	1605	607	1390	455	1210	367
0.50	1530	582	1345	441	1155	356

NOTE - All air data measured external to unit with dry coil and 1 inch non-pleated air filter in place.  
Electric heaters have no appreciable air resistance.

**ELECTRIC HEAT DATA**
**7AH1AC-018 | SINGLE PHASE**

Electric Heat Model Number	Input			Blower Motor Full Load Amps	² Minimum Circuit Ampacity	³ Maximum Overcurrent Protection
	Volt	kW	¹ Btuh			
5 kW	ECB45-5 (27A09) Terminal Block	208	3.6	12,300	1.1	23
	ECB45-5CB (27A13) 30A Circuit Breaker	220	4.0	13,800	1.1	24
		230	4.4	15,000	1.1	25
		240	4.8	16,400	1.1	30
7.5 kW	ECB45-7.5 (27A10) Terminal Block	208	5.6	19,200	1.1	35
	ECB45-7.5CB (27A14) 45A Circuit Breaker	220	6.3	21,500	1.1	37
		230	6.9	23,500	1.1	39
		240	7.5	25,600	1.1	40
10 kW	ECB45-10 (27A11) Terminal Block	208	7.2	24,600	1.1	45
	ECB45-10CB (27A15) 60A Circuit Breaker	220	8.0	27,500	1.1	47
		230	8.8	30,000	1.1	49
		240	9.6	32,700	1.1	51
						60

**ELECTRIC HEAT DATA**
**7AH1AC-024 | SINGLE PHASE**

Electric Heat Model Number	Input			Blower Motor Full Load Amps	² Minimum Circuit Ampacity	³ Maximum Overcurrent Protection
	Volt	kW	¹ Btuh			
5 kW	ECB45-5 (27A09) Terminal Block	208	3.6	12,300	1.6	24
	ECB45-5CB (27A13) 30A Circuit Breaker	220	4.0	13,800	1.6	25
		230	4.4	15,000	1.6	26
		240	4.8	16,400	1.6	30
7.5 kW	ECB45-7.5 (27A10) Terminal Block	208	5.6	19,200	1.6	36
	ECB45-7.5CB (27A14) 45A Circuit Breaker	220	6.3	21,500	1.6	38
		230	6.9	23,500	1.6	39
		240	7.5	25,600	1.6	41
10 kW	ECB45-10 (27A11) Terminal Block	208	7.2	24,600	1.6	45
	ECB45-10CB (27A15) 60A Circuit Breaker	220	8.0	27,500	1.6	48
		230	8.8	30,000	1.6	50
		240	9.6	32,700	1.6	52
						60

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

¹ Electric heater capacity only - does not include additional blower motor heat capacity.

² Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

³ HACR type breaker or fuse.

⁴ Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 8.

## ELECTRIC HEAT DATA

## 7AH1AC-030 | SINGLE PHASE

Electric Heat Model Number		Input			Blower Motor Full Load Amps	<sup>2</sup> Minimum Circuit Ampacity		<sup>3</sup> Maximum Overcurrent Protection		Single Point Power Source	
		Volt	kW	<sup>1</sup> Btuh		Ckt 1	Ckt 2	Ckt 1	Ckt 2	<sup>2</sup> Minimum Circuit Ampacity	<sup>3</sup> Maximum Overcurrent Protection
5 kW	ECB45-5 (27A09) Terminal Block ECB45-5CB (27A13) 30A Circuit Breaker	208	3.6	12,300	2.2	24	---	<b><sup>4</sup>25</b>	---	---	---
		220	4.0	13,800	2.2	26	---	30	---	---	---
		230	4.4	15,000	2.2	27	---	30	---	---	---
		240	4.8	16,400	2.2	28	---	30	---	---	---
7.5 kW	ECB45-7.5 (27A10) Terminal Block ECB45-7.5CB (27A14) 45A Circuit Breaker	208	5.6	19,200	2.2	37	---	<b><sup>4</sup>40</b>	---	---	---
		220	6.3	21,500	2.2	39	---	<b><sup>4</sup>40</b>	---	---	---
		230	6.9	23,500	2.2	40	---	<b><sup>4</sup>40</b>	---	---	---
		240	7.5	25,600	2.2	42	---	45	---	---	---
10 kW	ECB45-10 (27A11) Terminal Block ECB45-10CB (27A15) 60A Circuit Breaker	208	7.2	24,600	2.2	46	---	<b><sup>4</sup>50</b>	---	---	---
		220	8.0	27,500	2.2	49	---	<b><sup>4</sup>50</b>	---	---	---
		230	8.8	30,000	2.2	51	---	60	---	---	---
		240	9.6	32,700	2.2	53	---	60	---	---	---
12.5 kW	ECB45-12.5CB (27A16) (1) 50A and (1) 25A Circuit Breaker	208	9.4	32,000	2.2	40	19	<b><sup>4</sup>40</b>	<b><sup>4</sup>20</b>	59	60
		220	10.5	35,800	2.2	43	20	<b><sup>4</sup>45</b>	<b><sup>4</sup>20</b>	62	70
		230	11.5	39,200	2.2	44	21	<b><sup>4</sup>45</b>	25	65	70
		240	12.5	42,600	2.2	46	22	50	25	68	70
15 kW	ECB45-15CB (27A17) (1) 60A and (1) 25A Circuit Breaker	208	10.8	36,900	2.2	46	22	<b><sup>4</sup>50</b>	25	68	70
		220	12.1	41,300	2.2	49	23	<b><sup>4</sup>50</b>	25	72	80
		230	13.2	45,100	2.2	51	24	60	25	75	80
		240	14.4	49,100	2.2	53	25	60	25	78	80

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.<sup>3</sup> HACR type breaker or fuse.<sup>4</sup> Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 8.

## ELECTRIC HEAT DATA

## 7AH1AC-036 | SINGLE PHASE

Electric Heat Model Number		Input			Blower Motor Full Load Amps	² Minimum Circuit Ampacity		³ Maximum Overcurrent Protection		Single Point Power Source	
		Volt	kW	¹ Btuh		Ckt 1	Ckt 2	Ckt 1	Ckt 2	² Minimum Circuit Ampacity	³ Maximum Overcurrent Protection
5 kW	ECB45-5 (27A09) Terminal Block ECB45-5CB (27A13) 30A Circuit Breaker	208	3.6	12,300	2.0	24	---	<b>425</b>	---	---	---
		220	4.0	13,800	2.0	25	---	<b>425</b>	---	---	---
		230	4.4	15,000	2.0	26	---	30	---	---	---
		240	4.8	16,400	2.0	28	---	30	---	---	---
7.5 kW	ECB45-7.5 (27A10) Terminal Block ECB45-7.5CB (27A14) 45A Circuit Breaker	208	5.6	19,200	2.0	36	---	<b>440</b>	---	---	---
		220	6.3	21,500	2.0	38	---	<b>440</b>	---	---	---
		230	6.9	23,500	2.0	40	---	<b>440</b>	---	---	---
		240	7.5	25,600	2.0	42	---	45	---	---	---
10 kW	ECB45-10 (27A11) Terminal Block ECB45-10CB (27A15) 60A Circuit Breaker	208	7.2	24,600	2.0	46	---	<b>450</b>	---	---	---
		220	8.0	27,500	2.0	48	---	<b>450</b>	---	---	---
		230	8.8	30,000	2.0	50	---	<b>450</b>	---	---	---
		240	9.6	32,700	2.0	53	---	60	---	---	---
12.5 kW	ECB45-12.5CB (27A16) (1) 50A and (1) 25A Circuit Breaker	208	9.4	32,000	2.0	40	19	<b>440</b>	<b>420</b>	59	60
		220	10.5	35,800	2.0	42	20	<b>445</b>	<b>420</b>	62	70
		230	11.5	39,200	2.0	44	21	<b>445</b>	25	65	70
		240	12.5	42,600	2.0	46	22	50	25	68	70
15 kW	ECB45-15CB (27A17) (1) 60A and (1) 25A Circuit Breaker	208	10.8	36,900	2.0	46	22	<b>450</b>	25	68	70
		220	12.1	41,300	2.0	48	23	<b>450</b>	25	71	80
		230	13.2	45,100	2.0	50	24	<b>450</b>	25	74	80
		240	14.4	49,100	2.0	53	25	60	25	78	80

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

¹ Electric heater capacity only - does not include additional blower motor heat capacity.

² Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

³ HACR type breaker or fuse.

⁴ Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 8.

Electric Heat Model Number	Input			Blower Motor Full Load Amps	² Minimum Circuit Ampacity		³ Maximum Overcurrent Protection		Single Point Power Source	
	Volt	kW	¹ Btuh		Ckt 1	Ckt 2	Ckt 1	Ckt 2	² Minimum Circuit Ampacity	³ Maximum Overcurrent Protection
5 kW	ECB45-5 (27A09) Terminal Block ECB45-5CB (27A13) 30A Circuit Breaker	208	3.6	12,300	2.5	25	---	<b>⁴25</b>	---	---
		220	4.0	13,800	2.5	26	---	30	---	---
		230	4.4	15,000	2.5	27	---	30	---	---
		240	4.8	16,400	2.5	28	---	30	---	---
7.5 kW	ECB45-7.5 (27A10) Terminal Block ECB45-7.5CB (27A14) 45A Circuit Breaker	208	5.6	19,200	2.5	37	---	<b>⁴40</b>	---	---
		220	6.3	21,500	2.5	39	---	<b>⁴40</b>	---	---
		230	6.9	23,500	2.5	41	---	45	---	---
		240	7.5	25,600	2.5	42	---	45	---	---
10 kW	ECB45-10 (27A11) Terminal Block ECB45-10CB (27A15) 60A Circuit Breaker	208	7.2	24,600	2.5	46	---	<b>⁴50</b>	---	---
		220	8.0	27,500	2.5	49	---	<b>⁴50</b>	---	---
		230	8.8	30,000	2.5	51	---	60	---	---
		240	9.6	32,700	2.5	53	---	60	---	---
12.5 kW	ECB45-12.5CB (27A16) (1) 50A and (1) 25A Circuit Breaker	208	9.4	32,000	2.5	41	19	<b>⁴45</b>	<b>⁴20</b>	60
		220	10.5	35,800	2.5	43	20	<b>⁴45</b>	<b>⁴20</b>	63
		230	11.5	39,200	2.5	45	21	<b>⁴45</b>	25	66
		240	12.5	42,600	2.5	47	22	50	25	68
15 kW	ECB45-15CB (27A17) (1) 60A and (1) 25A Circuit Breaker	208	10.8	36,900	2.5	46	22	<b>⁴50</b>	25	68
		220	12.1	41,300	2.5	49	23	<b>⁴50</b>	25	72
		230	13.2	45,100	2.5	51	24	60	25	75
		240	14.4	49,100	2.5	53	25	60	25	78

NOTE - Circuit 1 Minimum Circuit Ampacity includes the Blower Motor Full Load Amps.

<sup>1</sup> Electric heater capacity only - does not include additional blower motor heat capacity.

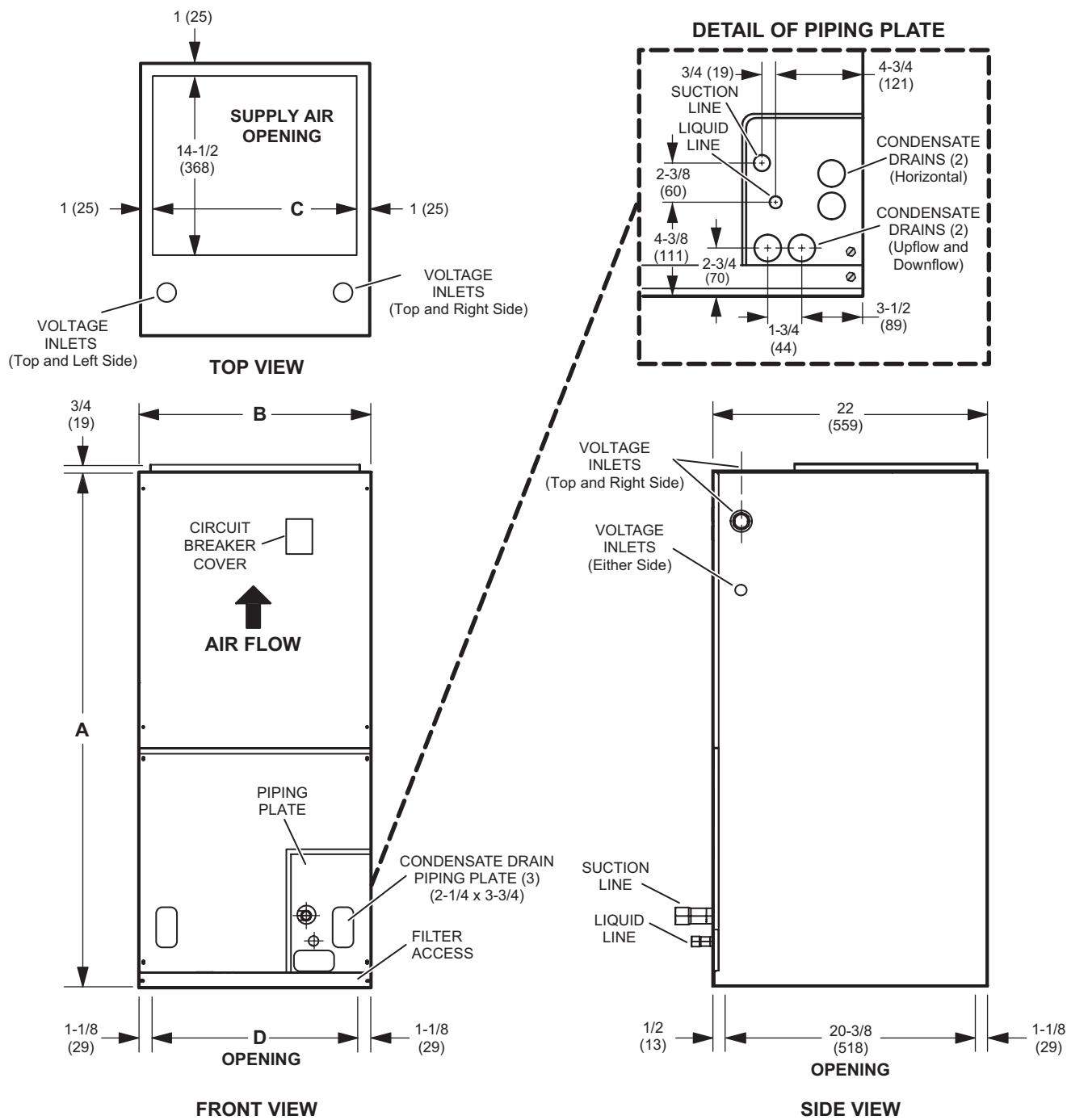
<sup>2</sup> Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements. Use wires suitable for at least 167°F.

<sup>3</sup> HACR type breaker or fuse.

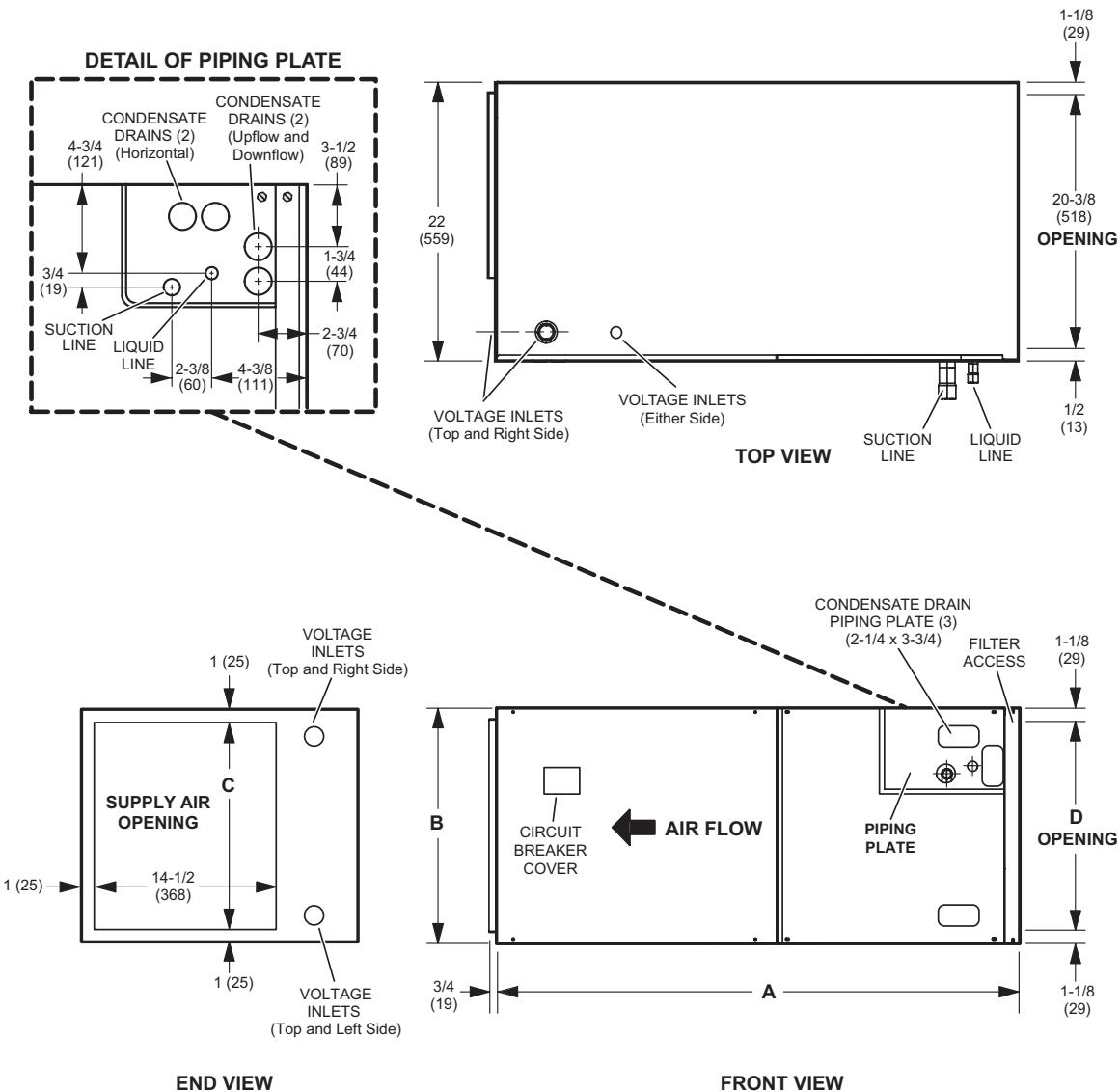
<sup>4</sup> Bold indicates that the circuit breaker on "CB" circuit breaker models must be replaced with size shown. See table on page 8.

## DIMENSIONS

## UNIT - UPFLOW POSITION



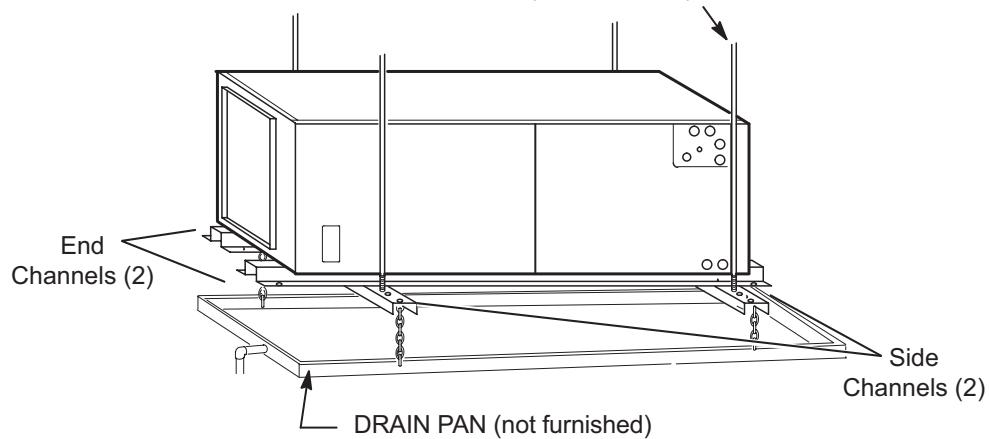
Dimensions	018		024		030		036, 042	
	in.	mm	in.	mm	in.	mm	in.	mm
A	43-1/2	1105	45-1/2	1156	47	1194	53-5/8	1362
B	18-1/2	470	18-1/2	470	18-1/2	470	21-1/2	546
C	16-1/2	419	16-1/2	419	16-1/2	419	19-1/2	495
D	16-1/4	413	16-1/4	413	16-1/4	413	19-1/4	489



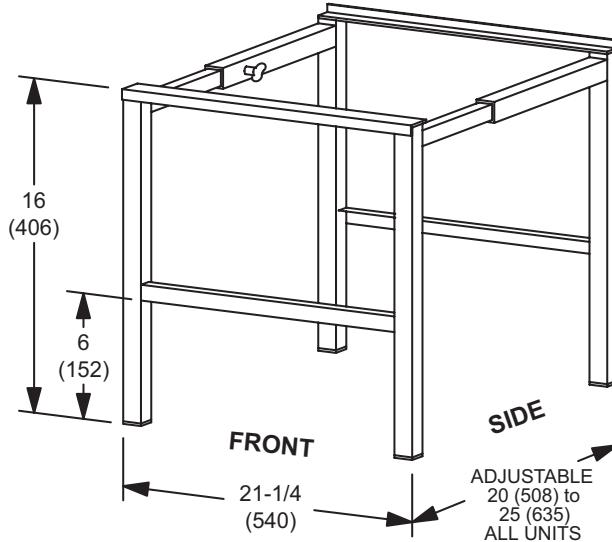
Dimensions	018		024		030		036, 042	
	in.	mm	in.	mm	in.	mm	in.	mm
A	43-1/2	1105	45-1/2	1156	47	1194	53-5/8	1362
B	18-1/2	470	18-1/2	470	18-1/2	470	21-1/2	546
C	16-1/2	419	16-1/2	419	16-1/2	419	19-1/2	495
D	16-1/4	413	16-1/4	413	16-1/4	413	19-1/4	489

## HORIZONTAL SUPPORT FRAME KIT

Suspension Rods (Not furnished)



Includes (2) 1 x 1-1/2 x 32-5/8 in. side channels and  
(2) 1 x 3 x 53-7/8 in. end channels.

SIDE RETURN UNIT STAND  
(Upflow Only)



Contact us at 1-800-448-5872

NOTE - Due to Allied Air's ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

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