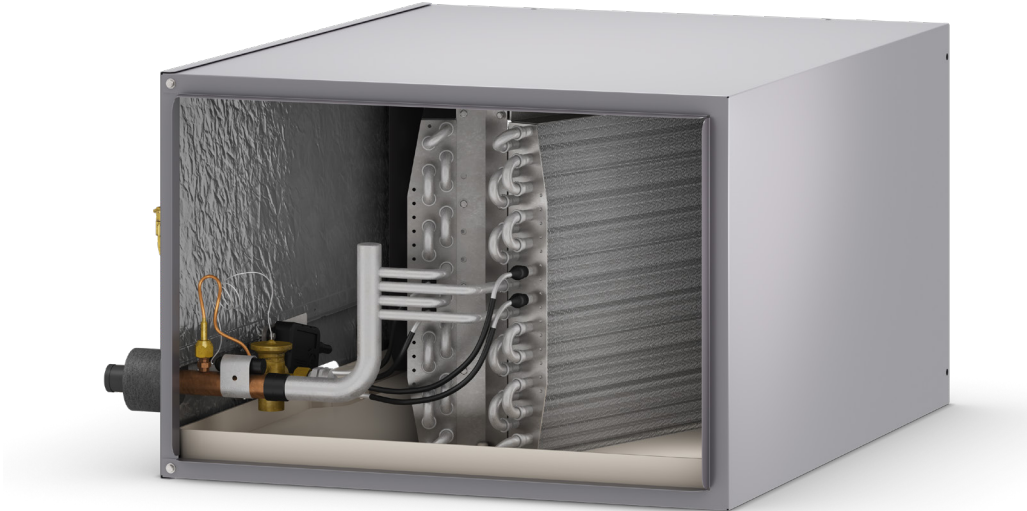


# 7EH-71

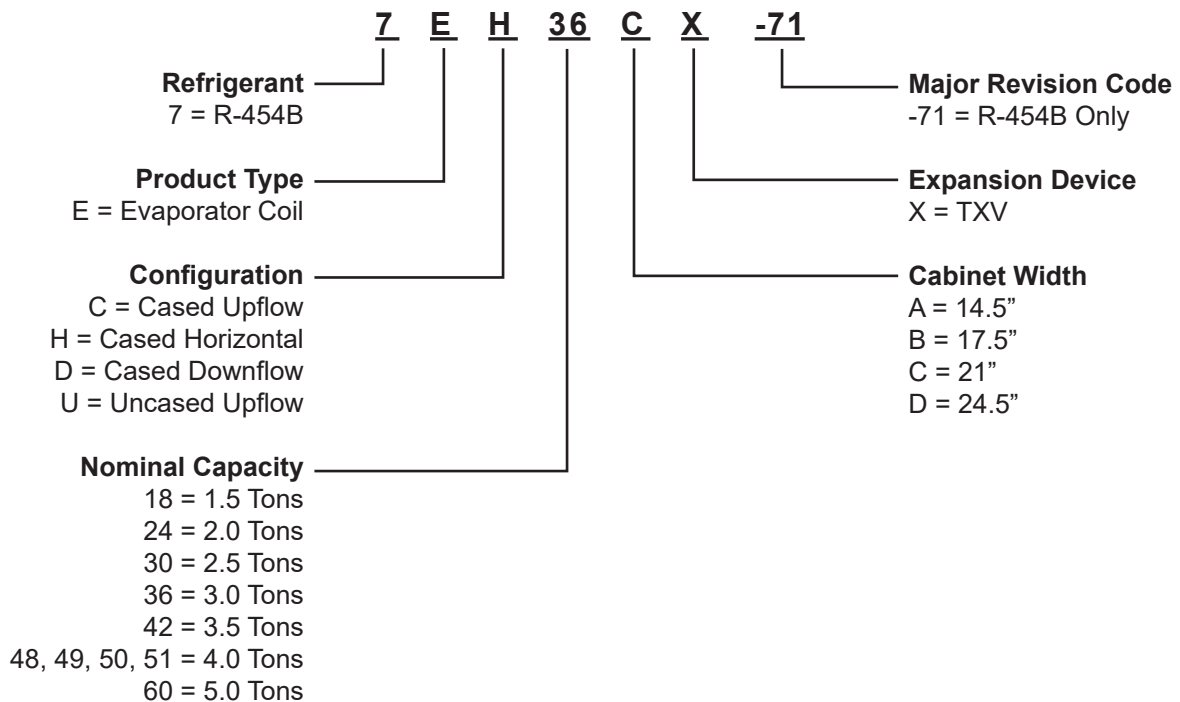
Horizontal | Cased | Omniguard® Coil | TXV Furnished | R-454B

## RESIDENTIAL PRODUCT SPECIFICATIONS

1.5 to 5 Tons



### MODEL NUMBER IDENTIFICATION



## CONTENTS

Model Number Identification . . . . .	1
Features. . . . .	2
Approvals And Warranty . . . . .	2
Specifications . . . . .	4
Air Resistance. . . . .	5
Dimensions - Furnace/Coil Combined Dimensions. . . . .	5
Dimensions . . . . .	6

## APPROVALS AND WARRANTY

### **APPROVALS**

- Tested with matching air conditioners and heat pump units in the Allied Research Laboratory environmental test room in accordance with AHRI Standard 210/240-2023
- AHRI Certified system match-ups and expanded ratings, visit [www.alliedratings.com](http://www.alliedratings.com)
- Air resistance tests from Allied Laboratory air test chamber

### **WARRANTY**

10 Year limited parts warranty available when applied with a system.

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 5 ton nominal sizes
- Horizontal indoor coils can easily be installed with most branded horizontal furnaces
- Factory installed R-454B, check/expansion valve

### **COIL CONSTRUCTION**

#### **Omniguard® Coil**

- Aluminum tubing, hairpins, distributor and header tubes
- Copper refrigerant sweat connections on both liquid and suction lines for easy brazing
- Ripple-edged aluminum fins
- Lanced fins provide maximum exposure of fin surface to air stream
- Axial grooved tubing provides superior heat transfer
- Twin coil construction assembled in an “A” configuration for large surface area
- High pressure testing insures leak-proof construction

#### **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

#### **Braze-Free/Press Fitting Flexibility**

- Units can accommodate braze-free or press fittings for installation versatility

#### **Anti-Microbial Drain Pan**

- Non-corrosive, UV-resistant polymer drain pan with dual FPT drain connections
- Anti-Microbial additive resists growth of mold and mildew on drain pan which improves indoor air quality and reduces drain line blockage

#### **R-454B Check/Expansion Valve**

- All models have a factory-installed, internal check/expansion valve
- For use with R-454B systems
- Wide range valve
- Chatleff style fitting
- Expansion valves are externally-equalized, non-bleed port type

## FEATURES

### **LOW GWP REFRIGERANT DETECTION SYSTEM**

- Consists of an RDS detection sensor on the coil and a RDS control in the furnace

**NOTE** - Furnaces with a factory installed RDS control - The RDS control is integral to the furnace ignition control board.

Furnaces without a RDS control - The Refrigerant Detection System (RDS) Blower Control Board is required and must be ordered separately for field installation. See below for description and features.

#### **Refrigerant Detection System (RDS) Coil Sensor**

- Factory installed on all indoor coils
- Complies with UL 60335-2-40 approved standard
- Required for all systems using R-454B refrigerant
- Sensor ensures safe operation for systems equipped with R-454B refrigerant
- Indoor sensor will detect any R-454B refrigerant

#### Optional Accessories

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

**NOTE** - For furnaces manufactured without the RDS Blower Control Board.

- Connects to the RDS sensor furnished with the coil Communicating Blower Control Board (Universal)
  - Communicating Blower Control Board and Sensor can be used universally with any branded communicating furnace or any non-communicating 24 volt furnace

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

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

#### **Standard Features**

- Connects to the RDS sensor furnished with the coil
- Supports up to two RDS Sensors (factory setting)
- Used as interface between indoor unit and thermostat to control system
- Ensures safe operation for systems equipped with R-454B refrigerant
- If R-454B refrigerant is detected the refrigerant detection system will prevent compressor and heating operation until R-454B refrigerant is no longer detected

- Refrigeration detection system also energizes the blower if R-454B refrigerant is detected to dissipate 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 R-454B refrigerant is detected
- Zone relay opens all zone dampers (if part of a zoning system) if R-454B refrigerant is detected
- Power is disabled to non-communicating thermostats to prevent demand if R-454B refrigerant 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)

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

### **CABINET**

- Pre-painted heavy gauge steel
- Insulated with thick fiberglass insulation
- Flanges provided in outlet for ease of duct connection
- Removable panels provide access to coil
- Refrigerant lines extend outside of cabinet for easy installation Furnace Match-Up
- Coils exactly match corresponding furnaces with the same letter designation in model number
- No adaptor required
- Engaging holes furnished on cabinet for alignment with furnace

<b>SPECIFICATIONS</b>		<b>1.5 TO 2 TON</b>		
Size		<b>18A</b>	<b>24A</b>	<b>24B</b>
<b>Nominal Tonnage</b>		1.5	2	2
<b>Refrigerant Type</b>		R-454B	R-454B	R-454B
<b>Furnace Cabinet Matching Letter Width</b>		A	A	B
<b>Coil &amp; Furnace Cabinet Width - in.</b>		14-1/2	14-1/2	17-1/2
<b>Connections</b>	Liquid line (OD) sweat - in.	3/8	3/8	3/8
	Suction line (OD) sweat - in.	7/8	7/8	7/8
	Condensate drain (FPT) - in.	(2) 3/4	(2) 3/4	(2) 3/4
<b>Indoor Coil</b>	Net face area - ft. <sup>2</sup>	3.5	3.5	4.67
	Tube diameter - in.	3/8	3/8	3/8
	Rows	2	3	2
	Fins - in.	19	13	19
<b>Shipping Data - lbs.</b>		44	46	50

<b>SPECIFICATIONS</b>		<b>2.5 TO 3 TON</b>				
Size		<b>30A</b>	<b>30B</b>	<b>36A</b>	<b>36B</b>	<b>36C</b>
<b>Nominal Tonnage</b>		2.5	2.5	3	3	3
<b>Refrigerant Type</b>		R-454B	R-454B	R-454B	R-454B	R-454B
<b>Furnace Cabinet Matching Letter Width</b>		A	B	A	B	C
<b>Coil &amp; Furnace Cabinet Width - in.</b>		14-1/2	17-1/2	14-1/2	17-1/2	21
<b>Connections</b>	Liquid line (OD) sweat - in.	3/8	3/8	3/8	3/8	3/8
	Suction line (OD) sweat - in.	7/8	7/8	7/8	7/8	7/8
	Condensate drain (FPT) - in.	(2) 3/4	(2) 3/4	(2) 3/4	(2) 3/4	(2) 3/4
<b>Indoor Coil</b>	Net face area - ft. <sup>2</sup>	4.33	4.67	3.5	4.67	5.83
	Tube diameter - in.	3/8	3/8	3/8	3/8	3/8
	Rows	3	3	3	2	2
	Fins per inch	16	13	13	18	18
<b>Shipping Data - lbs.</b>		56	54	48	49	56

<b>SPECIFICATIONS</b>		<b>3.5 TO 4 TON</b>			
Size		<b>42B</b>	<b>42C</b>	<b>48B</b>	<b>48C</b>
<b>Nominal Tonnage</b>		3.5	3.5	4	4
<b>Refrigerant Type</b>		R-454B	R-454B	R-454B	R-454B
<b>Furnace Cabinet Matching Letter Width</b>		B	C	B	C
<b>Coil &amp; Furnace Cabinet Width - in.</b>		17-1/2	21	17-1/2	21
<b>Connections</b>	Liquid line (OD) sweat - in.	3/8	3/8	3/8	3/8
	Suction line (OD) sweat - in.	7/8	7/8	7/8	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>	5.78	5.83	5.78	5.83
	Tube diameter - in.	3/8	3/8	3/8	3/8
	Rows	4	3	3	3
	Fins per inch	13	13	13	13
<b>Shipping Data - lbs.</b>		67	67	61	60

<b>SPECIFICATIONS</b>		<b>4 TO 5 TON</b>	
Size		<b>51C</b>	<b>60D</b>
<b>Nominal Tonnage</b>		4	5
<b>Refrigerant Type</b>		R-454B	R-454B
<b>Furnace Cabinet Matching Letter Width</b>		C	D
<sup>1</sup> <b>Coil &amp; Furnace Cabinet Width - in.</b>		21	24-1/2
<b>Connections</b>	Liquid line (OD) sweat - in.	3/8	3/8
	Suction line (OD) sweat - in.	7/8	7/8
	Condensate drain (FPT) - in.	(2) 3/4	(2) 3/4
<b>Indoor Coil</b>	Net face area - ft. <sup>2</sup>	7.22	7.94
	Tube diameter - in.	3/8	3/8
	Rows	3	3
	Fins per inch	13	13
<b>Shipping Data - lbs.</b>		70	79

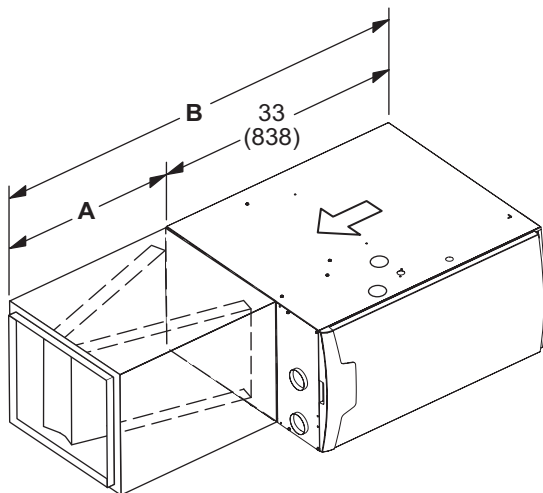
## AIR RESISTANCE

Air Volume cfm	Total Air Resistance - in. w.g.													
	18A		24A		24B		30A		30B		36A		36B	
	Dry Coil	Wet Coil	Dry Coil	Wet Coil	Dry Coil	Wet Coil	Dry Coil	Wet Coil	Dry Coil	Wet Coil	Dry Coil	Wet Coil	Dry Coil	Wet Coil
200	0.02	0.02	---	---	---	---	---	---	---	---	---	---	---	---
400	0.05	0.06	0.04	0.05	0.03	0.04	0.04	0.05	0.02	0.02	---	---	---	---
600	0.09	0.11	0.09	0.11	0.05	0.07	0.09	0.10	0.05	0.06	---	---	---	---
800	0.15	0.17	0.15	0.19	0.09	0.11	0.15	0.17	0.09	0.11	0.15	0.18	0.08	0.10
1000	0.22	0.25	0.23	0.29	0.15	0.17	0.24	0.27	0.14	0.16	0.22	0.27	0.11	0.16
1200	---	---	0.32	0.40	0.21	0.23	0.34	0.38	0.19	0.23	0.30	0.39	0.16	0.21
1400	---	---	0.43	0.50	0.28	0.30	0.45	0.51	0.26	0.30	0.41	0.48	0.21	0.27
1600	---	---	---	---	---	---	---	---	---	---	0.53	0.63	0.27	0.35

## AIR RESISTANCE

Air Volume cfm	Total Air Resistance - in. w.g.													
	36C		42B		42C		48B		48C		51C		60D	
	Dry Coil	Wet Coil	Dry Coil	Wet Coil	Dry Coil	Wet Coil	Dry Coil	Wet Coil	Dry Coil	Wet Coil	Dry Coil	Wet Coil	Dry Coil	Wet Coil
800	0.06	0.08	0.10	0.10	0.06	0.06	---	---	---	---	---	---	---	---
1000	0.10	0.13	0.14	0.18	0.09	0.10	0.14	0.16	---	---	---	---	---	---
1200	0.15	0.18	0.20	0.25	0.15	0.16	0.19	0.23	0.16	0.19	0.15	0.16	---	---
1400	0.19	0.23	0.26	0.31	0.18	0.21	0.25	0.29	0.21	0.26	0.20	0.23	0.12	0.16
1600	0.24	0.31	0.34	0.36	0.26	0.28	0.30	0.38	0.27	0.30	0.25	0.29	0.16	0.20
1800	---	---	0.42	0.47	0.31	0.38	0.38	0.42	0.33	0.39	0.31	0.36	0.20	0.24
2000	---	---	---	---	---	---	---	---	0.39	0.49	0.40	0.44	0.24	0.30
2200	---	---	---	---	---	---	---	---	---	---	0.48	0.54	0.29	0.36
2400	---	---	---	---	---	---	---	---	---	---	---	---	0.34	0.42

## DIMENSIONS - FURNACE/COIL COMBINED DIMENSIONS

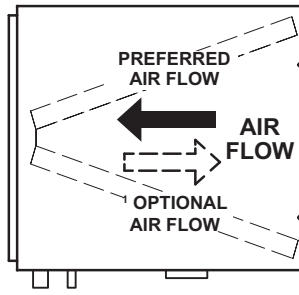


### HORIZONTAL POSITION

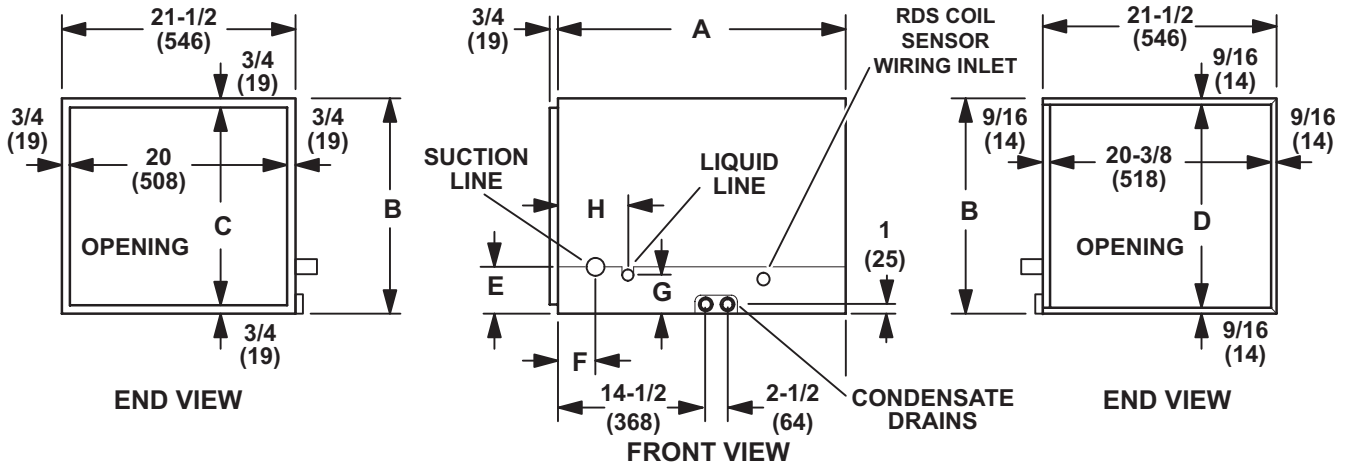
Coil Size	A		B	
	in.	mm	in.	mm
18A				
24A				
24B				
30B				
36A	26-1/2	673	59-1/2	1511
36B				
36C				
42C				
48C				
30A				
42B				
48B	31-1/2	880	64-1/2	1638
51/61C				
60D				

# DIMENSIONS

<sup>1</sup> Optional right-hand airflow requires a field fabricated 6 in. (152 mm) spacer in-between the furnace and coil.



TOP VIEW



Size	A		B		C		D		E		F		G		H	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
18A	26-1/2	673	14-1/2	368	13	330	13-3/8	340	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
24A	26-1/2	673	14-1/2	368	13	330	13-3/8	340	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
24B	26-1/2	673	17-1/2	444	16	406	16-3/8	416	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
30A	31-1/2	800	14-1/2	368	13	330	13-3/8	340	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
30B	26-1/2	673	17-1/2	444	16	406	16-3/8	416	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
36A	26-1/2	673	14-1/2	368	13	330	13-3/8	340	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
36B	26-1/2	673	17-1/2	444	16	406	16-3/8	416	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
36C	26-1/2	673	21	533	19-1/2	495	19-7/8	505	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
42B	31-1/2	800	17-1/2	444	16	406	16-3/8	416	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
42C	26-1/2	673	21	533	19-1/2	495	19-7/8	505	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
48B	31-1/2	800	17-1/2	444	16	406	16-3/8	416	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
48C	26-1/2	673	21	533	19-1/2	495	19-7/8	505	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
51C	31-1/2	800	21	533	19-1/2	495	19-7/8	505	3-1/4	83	1-3/4	44	3-3/8	86	4-3/8	111
60D	31-1/2	800	24-1/2	622	23	584	23-3/8	594	3-1/4	83	1-3/4	44	3-1/4	83	4-3/8	111



Contact us at 1-800-448-5872

**NOTE** - Due to our 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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