

# 7EC-71 | 7EU-71

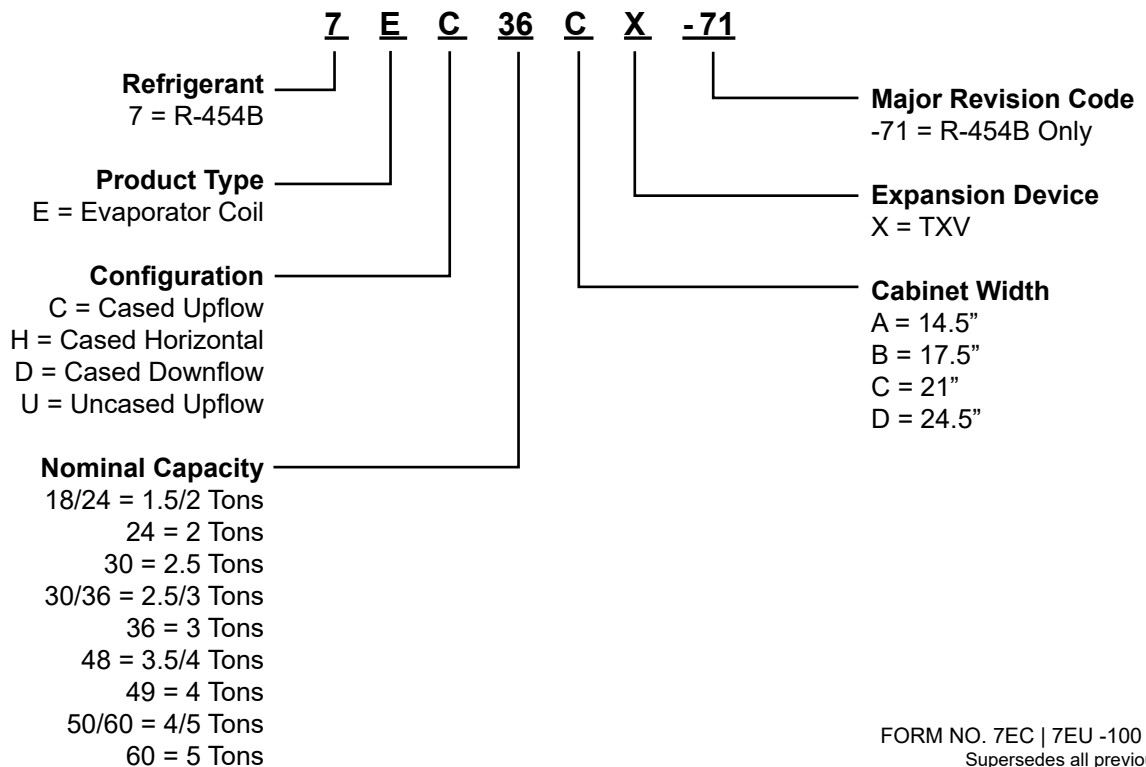
Upflow | Cased and Uncased | Omniguard® Coil | TXV Furnished | R-454B

## RESIDENTIAL PRODUCT SPECIFICATIONS

1.5 to 5 Tons



### MODEL NUMBER IDENTIFICATION



## CONTENTS

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## 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
- Upflow cased indoor coils can easily be installed with most branded upflow 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 (Cased Models)**

- Pre-painted heavy gauge steel
- Insulated with thick fiberglass insulation
- Flanges provided in outlet for ease of duct connection
- Coil slides out of cabinet for ease of servicing
- 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

SPECIFICATIONS		1.5 TO 2 TON			
Size		18/24A	18/24B	24A	24B
<b>Nominal Tonnage</b>		1.5 / 2	1.5 / 2	2	2
<b>Furnace Cabinet Matching Letter Width</b>		A	B	A	B
<sup>1</sup> <b>Coil &amp; Furnace Cabinet Width - in.</b>		14-1/2	17-1/2	14-1/2	17-1/2
<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	3/4
	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>	3.11	3.11	3.55	3.55
	Tube diameter - in.	3/8	3/8	3/8	3/8
	Rows	2	2	3	3
	Fins - in.	18	18	14	14
<b>Shipping Data - lbs.</b>	Uncased	18	20	23	24
	Cased	30	34	38	43

SPECIFICATIONS		2.5 TO 3 TON				
Size		30A	30B	30/36A	30/36B	30/36C
<b>Nominal Tonnage</b>		2.5	2.5	2.5 / 3	2.5 / 3	2.5 / 3
<b>Furnace Cabinet Matching Letter Width</b>		A	B	A	B	C
<sup>1</sup> <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.	3/4	3/4	3/4	3/4	3/4
	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>	4.44	4.44	4.89	4.89	4.89
	Tube diameter - in.	3/8	3/8	3/8	3/8	3/8
	Rows	2	2	2	2	2
	Fins per inch	18	18	18	18	18
<b>Shipping Data - lbs.</b>	Uncased	31	32	26	27	29
	Cased	45	50	41	45	48

SPECIFICATIONS		3 TO 4 TON					
Size		36A	36B	36C	48B	48C	49C
<b>Nominal Tonnage</b>		3	3	3	4	4	4
<b>Furnace Cabinet Matching Letter Width</b>		A	B	C	B	C	C
<sup>1</sup> <b>Coil &amp; Furnace Cabinet Width - in.</b>		14-1/2	17-1/2	21	17-1/2	21	21
<b>Connections</b>	Liquid line (OD) sweat - in.	3/8	3/8	3/8	3/8	3/8	3/8
	Suction line (OD) sweat - in.	3/4	3/4	3/4	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	(2) 3/4
<b>Indoor Coil</b>	Net face area - ft. <sup>2</sup>	4.89	4.89	4.89	5.77	5.77	7.0
	Tube diameter - in.	3/8	3/8	3/8	3/8	3/8	3/8
	Rows	3	3	3	3	3	3
	Fins per inch	14	14	14	13	13	15
<b>Shipping Data - lbs.</b>	Uncased	31	33	35	43	44	53
	Cased	46	50	54	55	60	70

SPECIFICATIONS		4 TO 5 TON		
Size		50/60C	60C	60D
<b>Nominal Tonnage</b>		4 / 5	5	5
<b>Furnace Cabinet Matching Letter Width</b>		C	C	D
<sup>1</sup> <b>Coil &amp; Furnace Cabinet Width - in.</b>		21	21	24-1/2
<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>	5.78	7.50	7.58
	Tube diameter - in.	3/8	3/8	3/8
	Rows	3	3	3
	Fins per inch	12	16	14
<b>Shipping Data - lbs.</b>	Uncased	40	58	48
	Cased	60	73	72

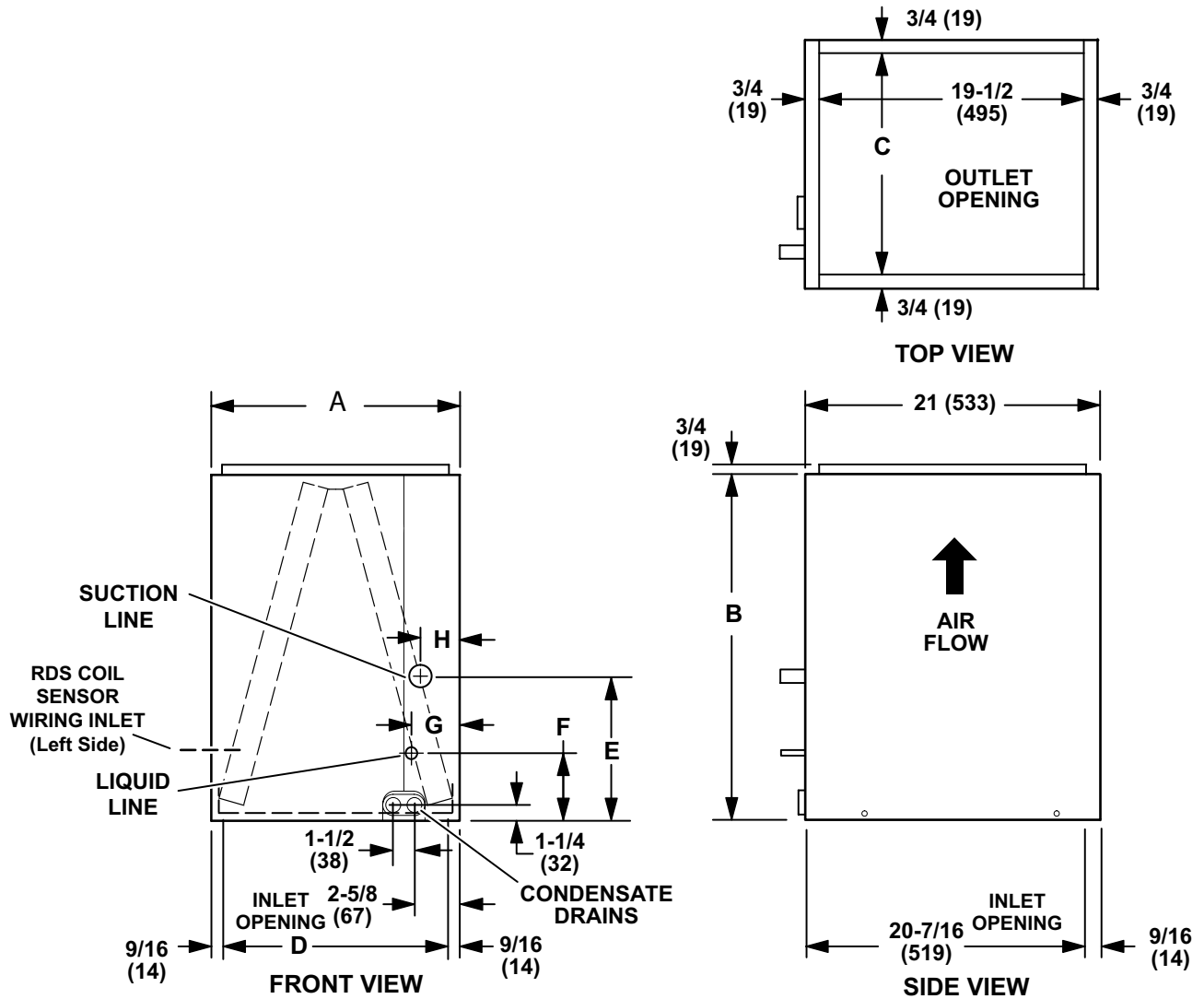
<sup>1</sup> Uncased coils match furnaces without any overhang, but require optional adaptor base or field fabricated transition to match furnace width. See page 11.

## AIR RESISTANCE

Size	Air Volume cfm	Total Resistance	
		Dry Coil	Wet Coil
		in. w.g.	in. w.g.
<b>18/24A 18/24B</b>	400	0.06	0.08
	600	0.11	0.17
	800	0.18	0.25
	1000	0.27	0.39
	1200	0.37	0.52
<b>24A</b>	400	0.05	0.05
	600	0.09	0.10
	800	0.16	0.18
	1000	0.23	0.26
	1200	0.32	0.36
<b>24B</b>	400	0.03	0.04
	600	0.07	0.09
	800	0.11	0.15
	1000	0.17	0.22
	1200	0.23	0.31
<b>30A</b>	600	0.07	0.08
	800	0.12	0.13
	1000	0.18	0.20
	1200	0.26	0.28
	1400	0.34	0.37
<b>30B</b>	600	0.06	0.06
	800	0.09	0.11
	1000	0.13	0.16
	1200	0.19	0.23
	1400	0.25	0.31
<b>30/36A</b>	800	0.13	0.14
	1000	0.19	0.21
	1200	0.27	0.30
	1400	0.34	0.39
	1600	0.45	0.51
<b>30/36B 30/36C 36B</b>	800	0.08	0.11
	1000	0.13	0.16
	1200	0.17	0.21
	1400	0.22	0.28
	1600	0.29	0.34

Size	Air Volume cfm	Total Resistance	
		Dry Coil	Wet Coil
		in. w.g.	in. w.g.
<b>36A</b>	800	0.13	0.14
	1000	0.19	0.21
	1200	0.27	0.30
	1400	0.34	0.39
	1600	0.45	0.51
	800	0.05	0.06
<b>36C</b>	1000	0.07	0.08
	1200	0.10	0.13
	1400	0.13	0.17
	1600	0.16	0.21
	1000	0.13	0.13
<b>48B</b>	1200	0.18	0.18
	1400	0.23	0.24
	1600	0.30	0.31
	1800	0.37	0.40
	1000	0.07	0.09
<b>48C</b>	1200	0.10	0.12
	1400	0.13	0.16
	1600	0.16	0.20
	1800	0.20	0.24
	1200	0.08	0.12
<b>49C</b>	1400	0.13	0.17
	1600	0.17	0.22
	1800	0.22	0.28
	2000	0.28	0.35
	1200	0.13	0.17
<b>50/60C</b>	1400	0.18	0.23
	1600	0.23	0.29
	1800	0.28	0.37
	2000	0.34	0.43
	1400	0.11	0.15
<b>60D</b>	1600	0.14	0.18
	1800	0.17	0.21
	2000	0.21	0.27
	2200	0.25	0.32
	2400	0.30	0.37
	1400	0.15	0.19
<b>60C</b>	1600	0.19	0.23
	1800	0.24	0.28
	2000	0.29	0.34
	2200	0.33	0.40
	2400	0.39	0.46

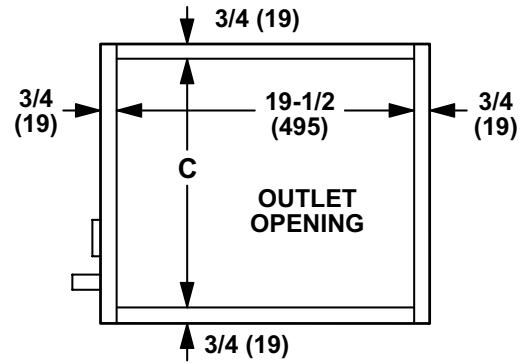
**7EC18/24(A/B), 30/36(A,B,C) and 36 (A/B/C) Coils**



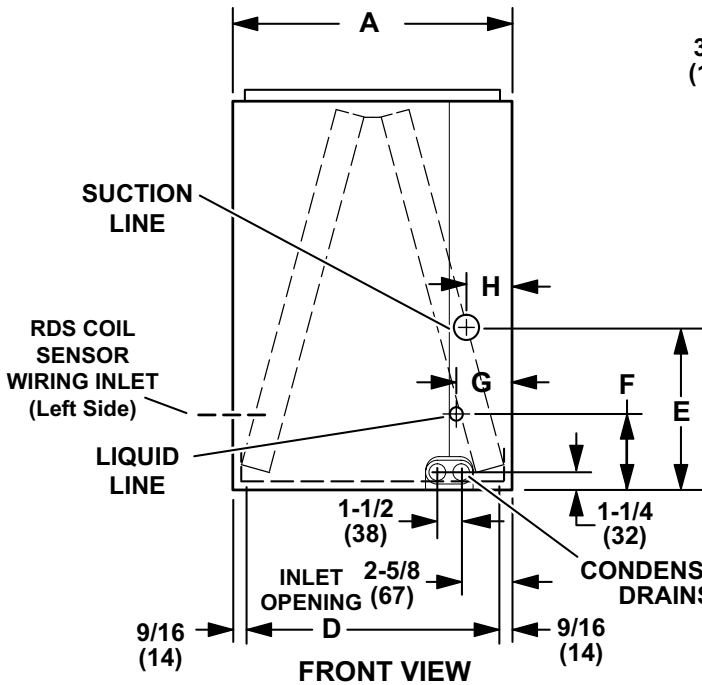
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	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
<b>18/24A</b>	14-1/2	368	16-1/2	419	13	330	13-3/8	340	7-1/4	185	3-5/8	92	2-5/8	66	2-3/8	60
<b>18/24B</b>	17-1/2	445	16-1/2	419	16	406	16-3/8	416	7-1/4	185	3-5/8	92	2-5/8	66	2-3/8	60
<b>30/36A</b>	14-1/2	368	24-1/2	622	13	330	13-3/8	340	13-1/2	343	3-5/8	92	2-5/8	66	2-3/8	60
<b>30/36B</b>	17-1/2	445	24-1/2	622	16	406	16-3/8	416	13-1/2	343	3-5/8	92	2-5/8	66	2-3/8	60
<b>30/36C</b>	21	533	24-1/2	622	19-1/2	495	19-7/8	505	13-1/2	343	3-5/8	92	2-5/8	66	2-3/8	60
<b>36A</b>	14-1/2	368	24-1/2	622	13	330	13-3/8	340	13-1/2	343	3-5/8	92	2-5/8	66	2-3/8	60
<b>36B</b>	17-1/2	445	24-1/2	622	16	406	16-3/8	416	13-1/2	343	3-5/8	92	2-5/8	66	2-3/8	60
<b>36C</b>	21	533	24-1/2	622	19-1/2	495	19-7/8	505	13-1/2	343	3-5/8	92	2-5/8	66	2-3/8	60

**7EC24(A/B), 30(A/B), 48(B/C), 50/60C and 60D Coils**  
 (NOTE - See next page for 7EC49C and 60C Coils)

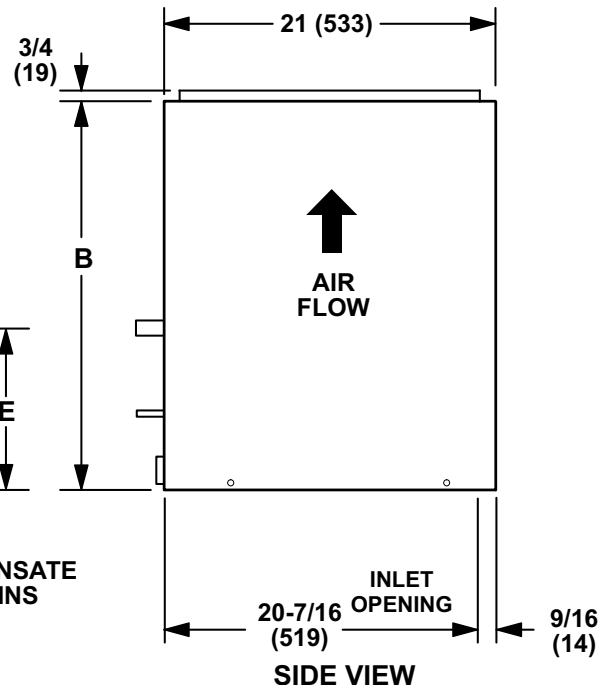
NOTE- 7EC60D coil is positioned in cabinet with coil face running left to right, all other coil sizes are positioned like drawing.



**TOP VIEW**



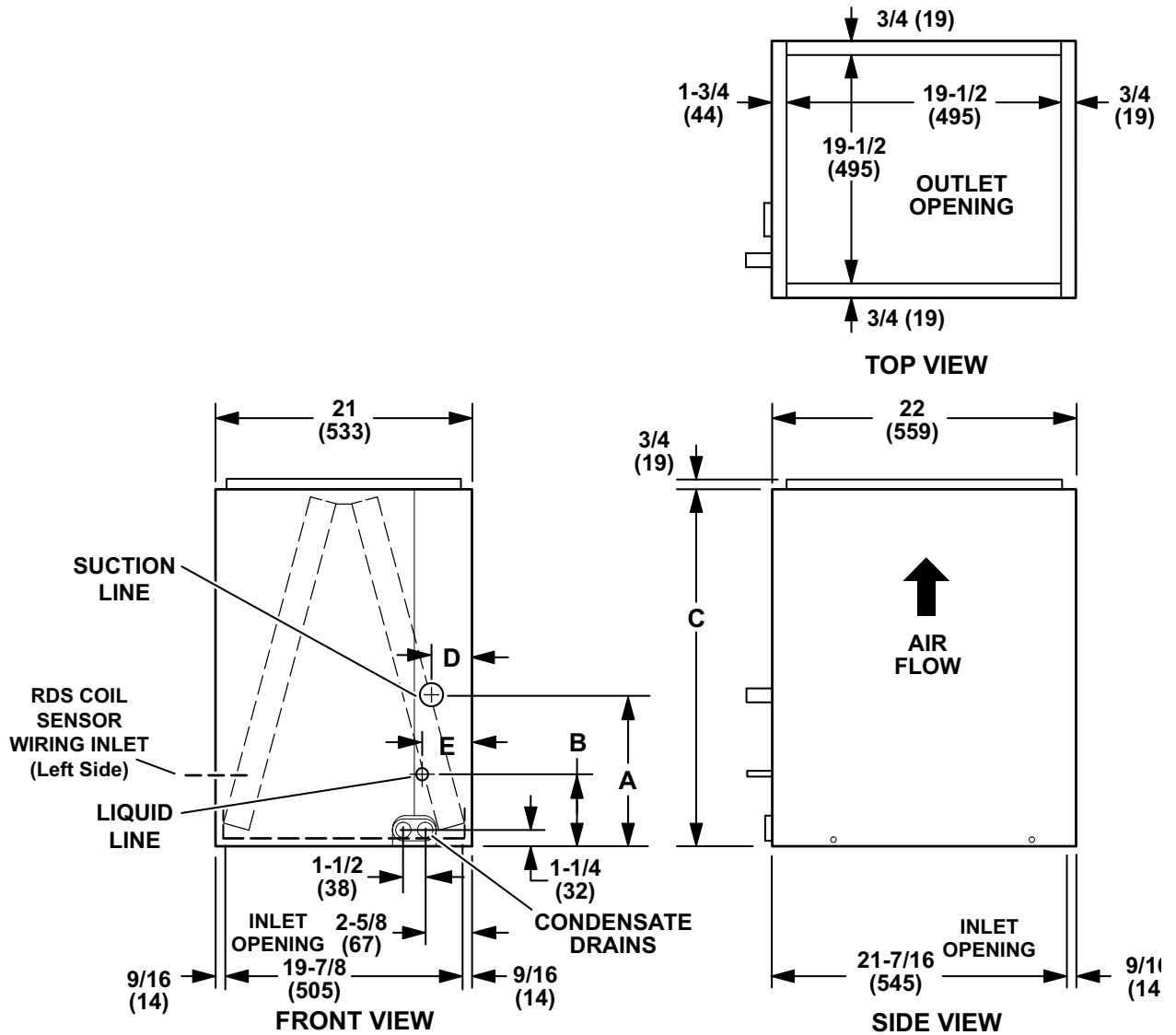
**FRONT VIEW**



**SIDE VIEW**

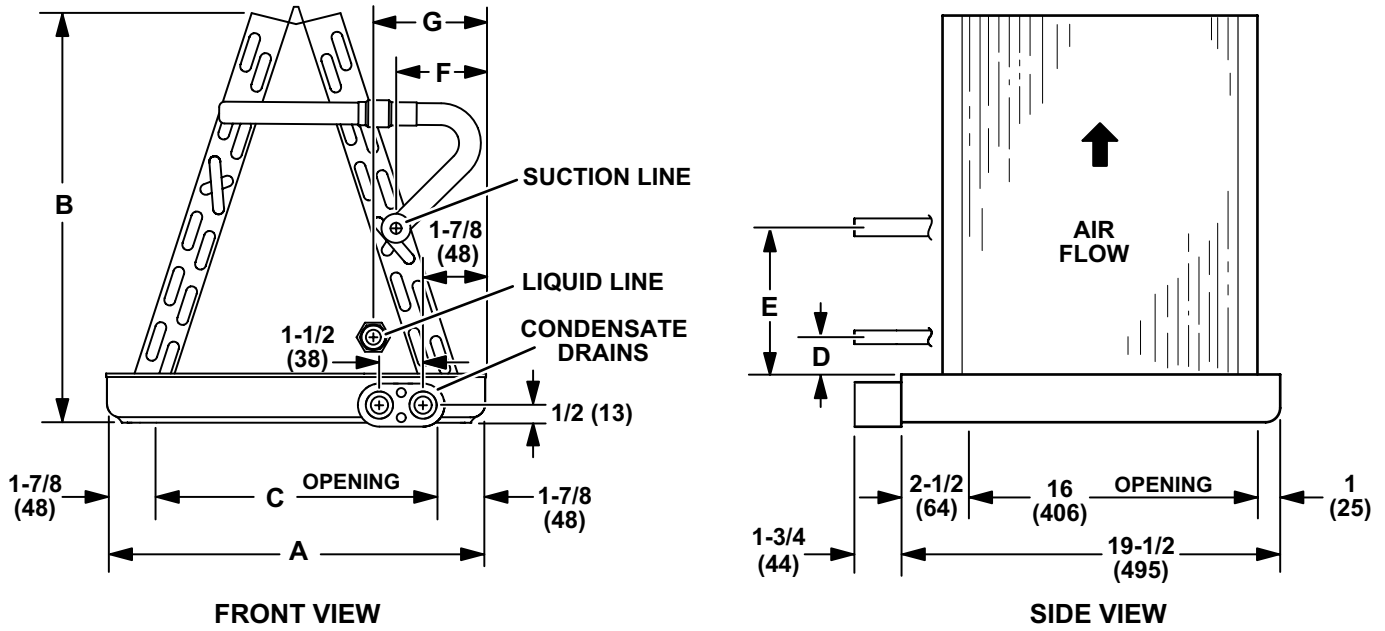
Size	A		B		C		D		E		F		G		H	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
<b>24A</b>	14-1/2	368	18-1/2	470	13	330	13-3/8	340	9-3/4	248	3-5/8	92	2-5/8	66	2-3/8	60
<b>24B</b>	17-1/2	445	18-1/2	470	16	406	16-3/8	416	9-3/4	248	3-5/8	92	2-5/8	66	2-3/8	60
<b>-30A</b>	14-1/2	368	22-1/2	572	13	330	13-3/8	340	11-1/2	292	3-5/8	92	2-5/8	66	2-3/8	60
<b>30B</b>	17-1/2	445	22-1/2	572	16	406	16-3/8	416	11-1/2	292	3-5/8	92	2-5/8	66	2-3/8	60
<b>48B</b>	17-1/2	445	27-1/2	699	16	406	16-3/8	416	12-1/2	318	3-5/8	92	2-5/8	66	2-3/8	60
<b>48C</b>	21	533	27-1/2	699	19-1/2	495	19-7/8	505	12-1/2	318	3-5/8	92	2-5/8	66	2-3/8	60
<b>50/60C</b>	21	533	27-1/2	699	19-1/2	495	19-7/8	505	12-1/2	318	3-5/8	92	2-5/8	66	2-3/8	60
<b>60D</b>	24-1/2	622	29-1/2	749	23	584	23-3/8	594	10	254	3-5/8	92	2-5/8	66	2-3/8	60

**7EC49C and 7EC60C-6F**



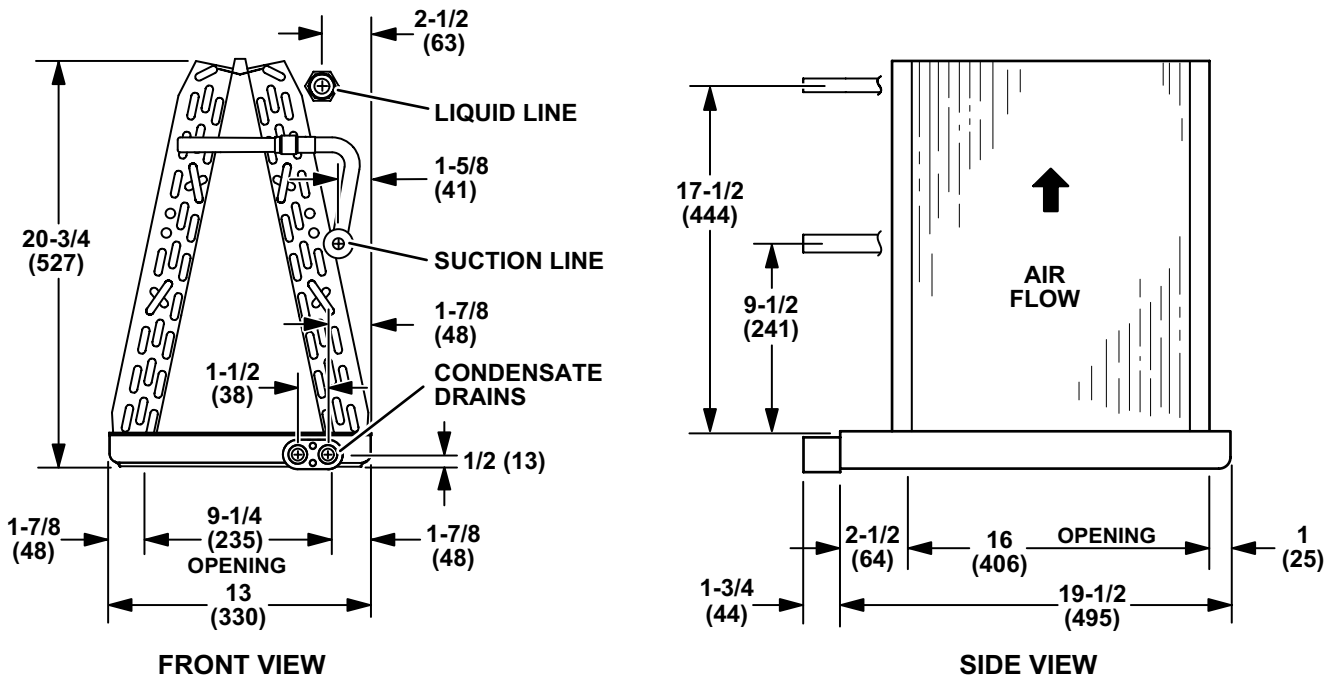
Size	A		B		C		D		E	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
<b>49C</b>	10	254	3-5/8	92	29-1/2	749	2-3/8	60	2-5/8	66
<b>60C</b>	14-1/2	368	3-5/8	92	31-1/2	800	2-3/8	60	2-5/8	66

7EU18/24(A/B) and 24(A/B) Coils

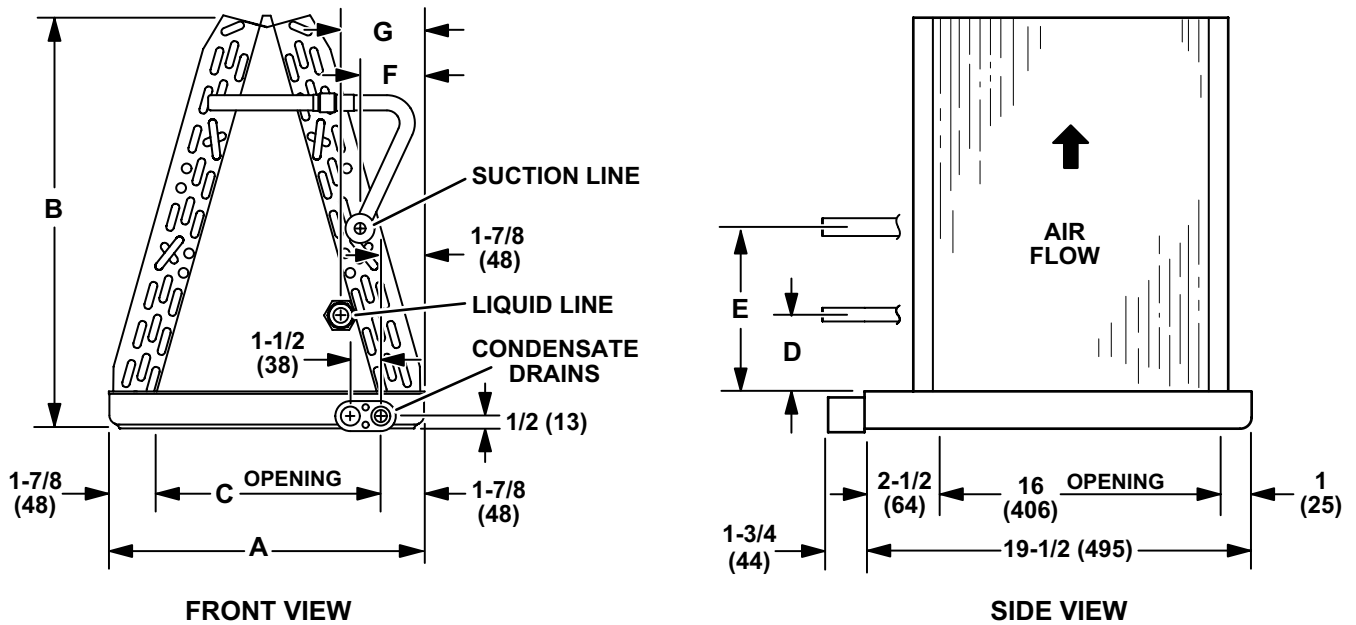


Size	A		B		C		D		E		F		G	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
18/24A	13	330	14-1/8	359	9-1/4	235	1-1/4	32	5	127	3-1/8	79	3-7/8	98
18/24B	15-1/2	394	14-1/8	359	11-3/4	298	1	25	4-5/8	117	2-7/8	73	3-5/8	92
24A	13	330	16-3/8	416	9-1/4	235	2-7/8	73	7-5/8	194	3-1/8	79	3-3/4	95
24B	15-1/2	394	16-3/8	416	11-3/4	298	2-1/4	57	7-1/2	190	3-1/8	79	4	102

7EU30A Coil

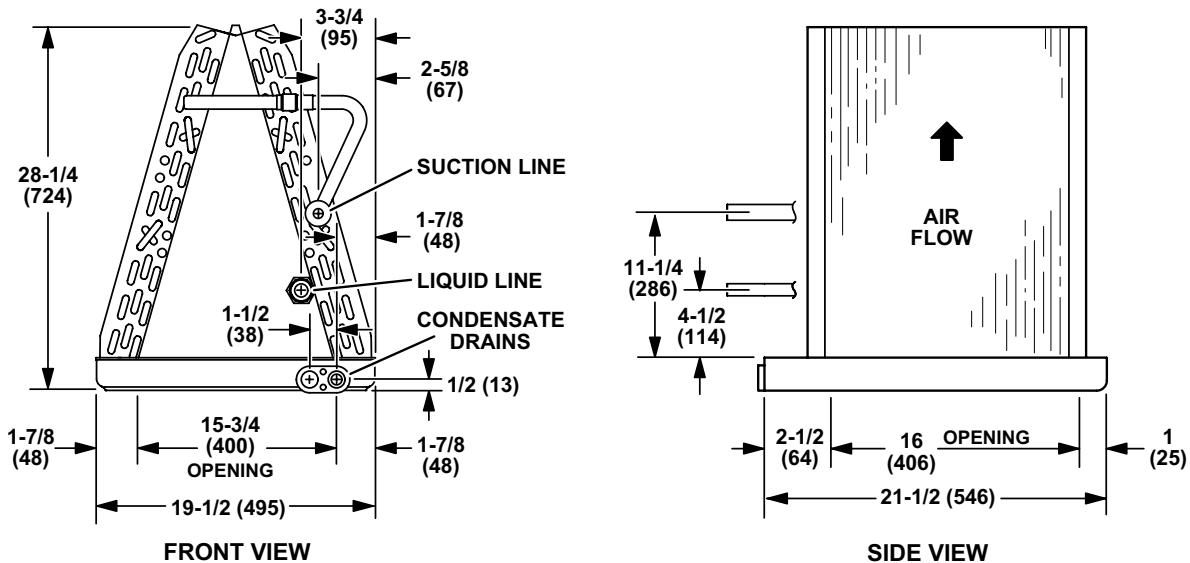


7EU30B, 30/36(A/B/C), 36(A/B), 48(B/C), 50/60C Coils

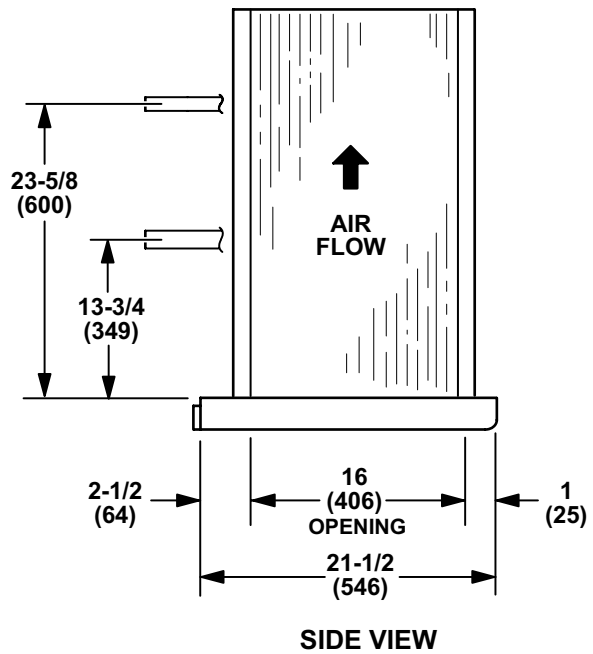
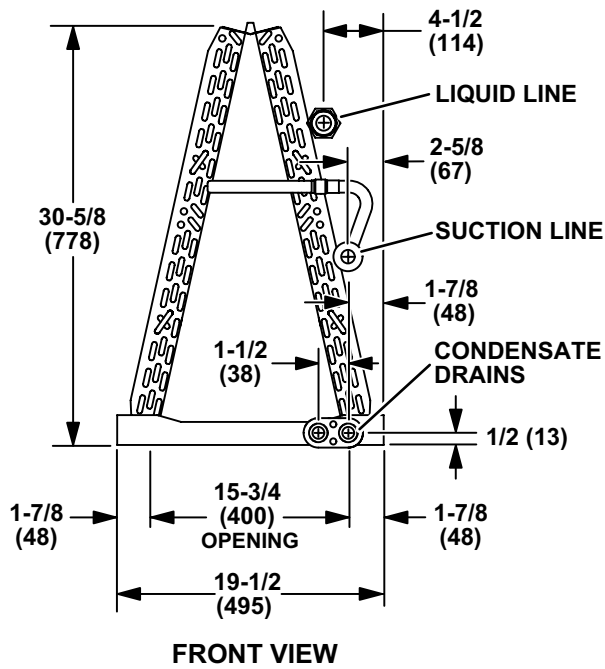


Size	A		B		C		D		E		F		G	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
30B	15-1/2	394	20-3/4	527	11-3/4	298	3-1/8	79	8	203	3-1/8	79	4	102
30/36A	13	330	22-1/4	565	9-1/4	235	2-1/2	64	11-3/4	298	3-1/8	79	3-7/8	98
30/36B	15-1/2	394	22-1/4	565	11-3/4	298	2-5/8	67	11	279	3-1/8	79	4	102
30/36C	20	508	22-1/4	565	16-1/4	413	2-3/8	60	11-7/8	302	3-1/8	79	4	102
36A	13	330	22-3/8	568	9-1/4	235	4-1/4	108	12-5/8	321	2-1/2	64	3-1/2	89
36B	15-1/2	394	22-3/8	568	11-3/4	298	4-1/2	114	13	330	2-7/8	73	3-5/8	92
36C	20	508	22-1/4	565	16-1/4	413	2-3/8	60	11-7/8	302	3-1/8	79	4	102
48B	15-1/2	394	26-1/4	667	11-3/4	298	4-3/8	111	12-1/4	311	3-1/8	79	3-3/4	95
48C	20	508	26-1/4	667	16-1/4	413	4-1/8	105	11-3/4	298	3-1/8	79	3-3/4	95
50/60C	20	508	25-7/8	657	16-1/4	413	3-3/4	95	11-3/4	298	3-1/8	79	4	102

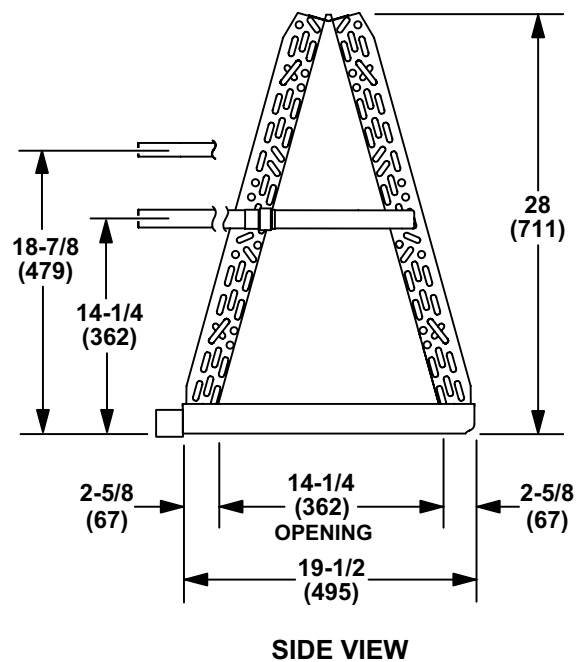
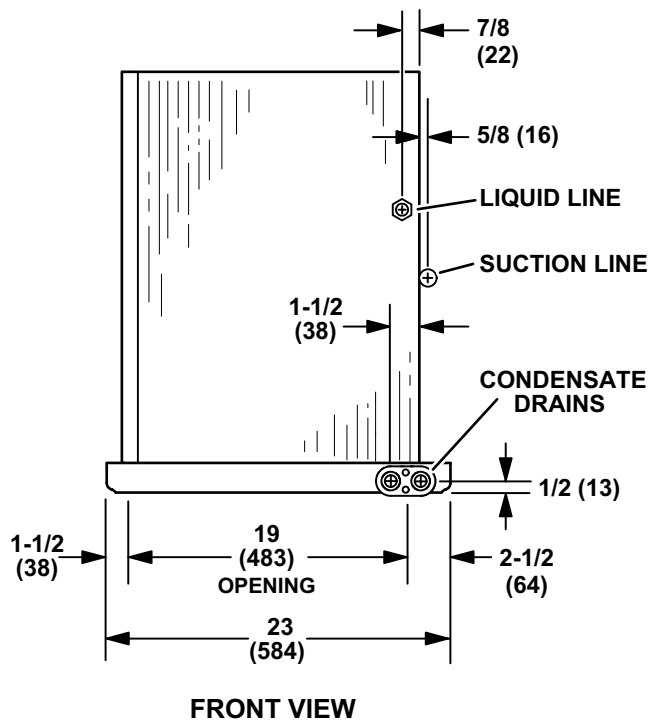
7EU49C Coil



7EU60D Coil



7EU60D Coil





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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