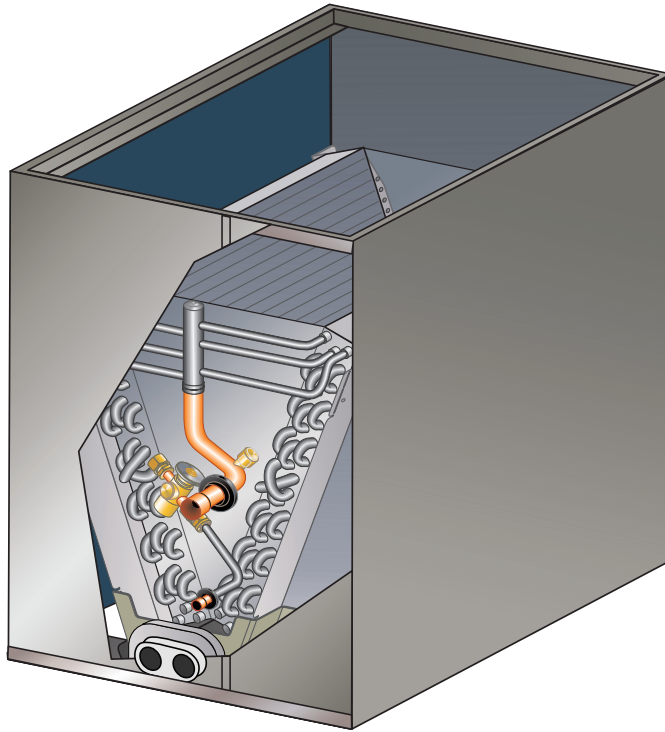
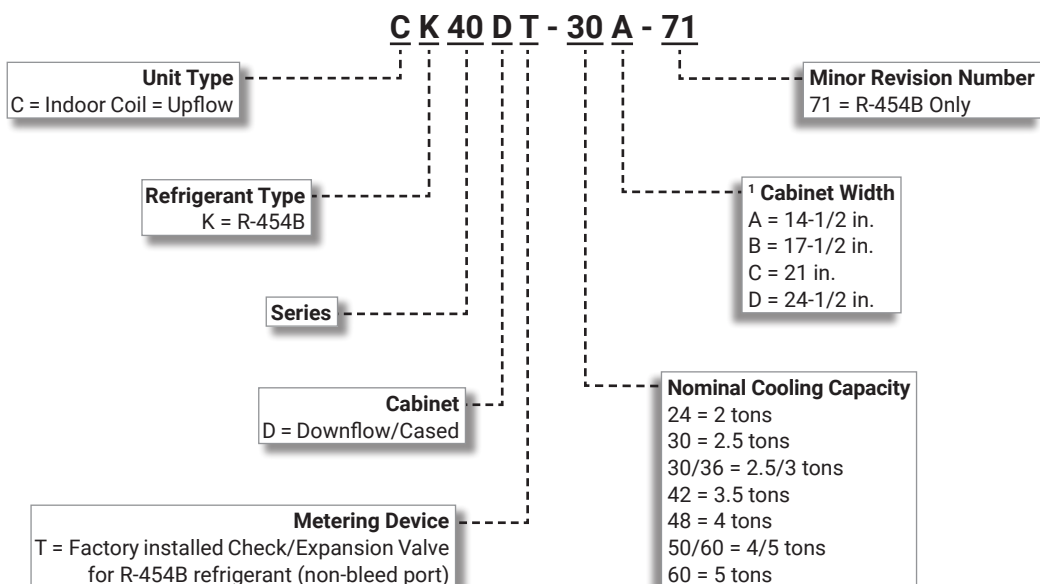


**CK40DT**Downflow | Cased | Quantum™ Coil | TXV Furnished | **R-454B****RESIDENTIAL  
PRODUCT SPECIFICATIONS (EHB)****2 to 5 Tons****2025 COMPLIANT  
REFRIGERANT****MODEL NUMBER IDENTIFICATION**<sup>1</sup> Furnaces with the same letter designation physically match the indoor coil.

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## APPROVALS AND WARRANTY

### **APPROVALS**

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

### **WARRANTY**

- All other covered components:
  - Limited five years in residential installations
  - Limited one year in non-residential installations

**NOTE** - Refer to Lennox® Basic Limited Warranty at [www.Lennox.com](http://www.Lennox.com) for additional details.

## FEATURES

### **APPLICATIONS**

- 2 to 5 ton nominal sizes
- Lennox designed downflow indoor coils can easily be installed with most Lennox downflow furnaces
- Factory installed R-454B, check/expansion valve

### **COIL CONSTRUCTION**

#### **Quantum™ Coil**

- Lennox designed and fabricated 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
- Helical 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

#### **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 a refrigerant detection sensor on the coil and a mitigation control in the furnace

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

Furnaces without a RDS mitigation 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 Lennox® 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 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 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
- Coil slides out of cabinet for ease of servicing
- 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

**NOTE** - "D" width coils do not match "C" width furnace width or openings. See Physical Matches drawing on page 7

## OPTIONAL ACCESSORIES - ORDER SEPARATELY

Description	Order No.
Refrigerant Detection System (RDS) Blower Control Board	Any Lennox® Communicating Furnace <u>or</u> any Non-Communicating 24V Furnace (Universal) <b>27A03</b>
	Any Non-Communicating 24V Furnace <b>27A02</b>
NOTE - Communicating Blower Control Board can be used universally with Lennox® communicating furnace <u>or</u> any non-communicating 24 volt furnace. Non-Communicating Blower Control Board can be used with any non-communicating 24 volt furnace.	

SPECIFICATIONS			2 TO 3 TON		
Size		24A	24B	30/36B	30/36C
Nominal size - Tons		2	2	2.5 / 3	2.5 / 3
Refrigerant Type		R-454B	R-454B	R-454B	R-454B
Factory Installed Expansion Valve (TXV)		26Z70	26Z70	26Z70	26Z70
Furnace Cabinet Matching Letter Width		A	B	B	C
Coil & Furnace Cabinet Width - in.		14-1/2	17-1/2	17-1/2	21
Connections	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
Indoor Coil	Net face area sq. ft.	4.08	4.08	4.67	4.67
	Tube diameter - in.	3/8	3/8	3/8	3/8
	Rows	3	3	3	3
	Fins - in.	14	14	14	14
Shipping Data - lbs.		44	51	52	60

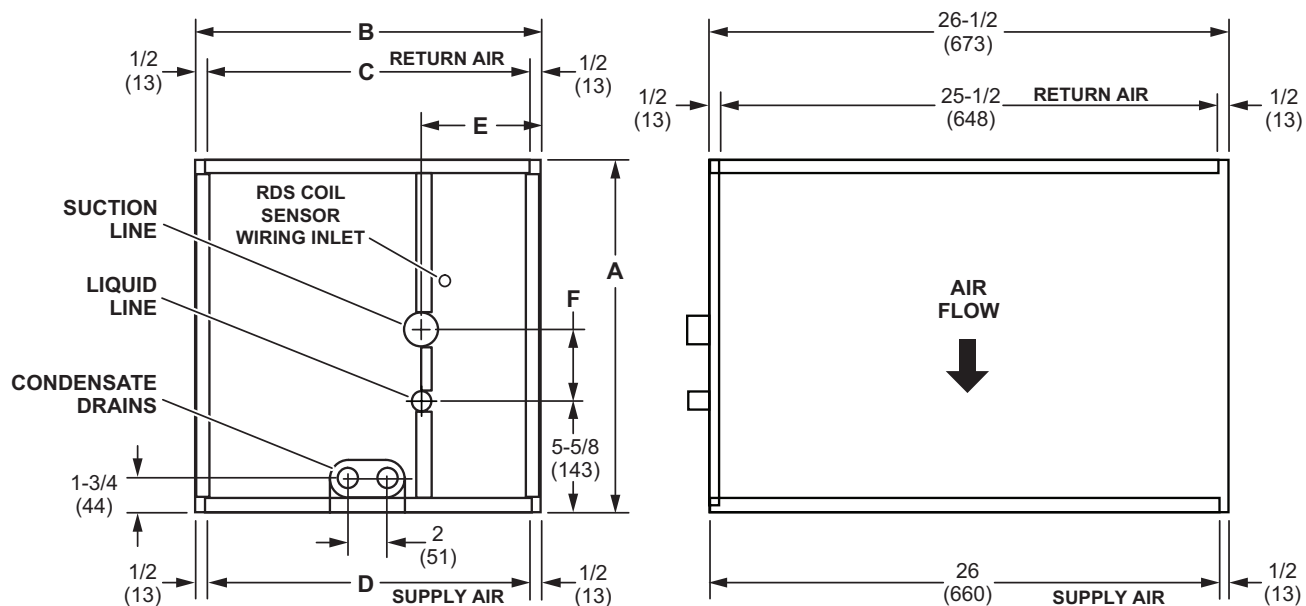
SPECIFICATIONS			3.5 TO 5 TON		
Size		42B	48C	50/60C	60D
Nominal size - Tons		3.5	4	4 / 5	5
Refrigerant Type		R-454B	R-454B	R-454B	R-454B
Factory Installed Expansion Valve (TXV)		26Z71	26Z71	26Z71	26Z72
Furnace Cabinet Matching Letter Width		B	C	C	D
Coil & Furnace Cabinet Width - in.		17-1/2	21	21	24-1/2
Connections	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
Indoor Coil	Net face area sq. ft.	5.83	6.42	7.00	7.00
	Tube diameter - in.	3/8	3/8	3/8	3/8
	Rows	3	3	3	3
	Fins - in.	14	14	14	14
Shipping Data - lbs.		65	69	71	75

## AIR RESISTANCE

Size	Air Volume	Total Resistance	
		Dry Coil	Wet Coil
	cfm	in. w.g.	in. w.g.
24A	400	0.08	0.09
	600	0.16	0.18
	800	0.29	0.33
	1000	0.45	0.49
24B	600	0.11	0.13
	800	0.18	0.19
	1000	0.27	0.29
	1200	0.35	0.39
30/36B	1400	0.47	0.51
	600	0.1	0.12
	800	0.15	0.18
	1000	0.24	0.27
30/36C	1200	0.32	0.36
	1400	0.43	0.47
	600	0.05	0.08
	800	0.09	0.12
30/36C	1000	0.13	0.17
	1200	0.17	0.23
	1400	0.24	0.30
42B	600	0.08	0.10
	800	0.12	0.14
	1000	0.18	0.22
	1200	0.25	0.30
	1400	0.34	0.39
	1600	0.43	0.49

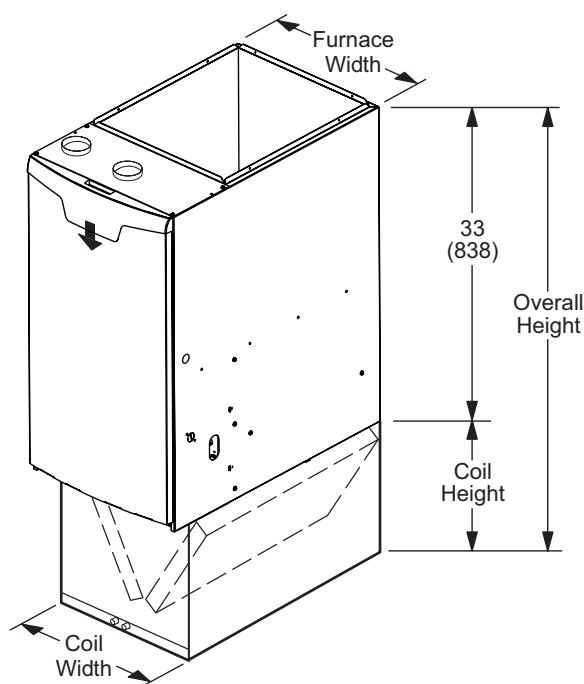
Size	Air Volume	Total Resistance	
		Dry Coil	Wet Coil
	cfm	in. w.g.	in. w.g.
48C	800	0.09	0.10
	1000	0.11	0.13
	1200	0.15	0.18
	1400	0.21	0.23
	1600	0.26	0.30
	1800	0.34	0.37
	2000	0.4	0.44
50/60C	800	0.09	0.11
	1000	0.12	0.14
	1200	0.16	0.20
	1400	0.22	0.24
	1600	0.27	0.32
	1800	0.33	0.38
60D	2000	0.4	0.46
	800	0.09	0.08
	1000	0.13	0.13
	1200	0.18	0.16
	1400	0.16	0.21
	1600	0.2	0.26
	1800	0.24	0.32
	2000	0.29	0.39

## DIMENSIONS



Size	A (Height)		B (Width)		C		D		E		F	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
24A	18	457	14 -1/2	368	13-1/2	343	13-1/2	343	4-5/8	117	3-5/8	92
24B	18	457	17-1/2	445	16-1/2	419	16-1/2	419	6-1/8	155	3-5/8	92
30/36B	23-1/2	597	17-1/2	445	16-1/2	419	16-1/2	419	6-1/8	155	4-3/4	121
30/36C	23-1/2	597	21	533	20	508	20	508	7-7/8	200	4-3/4	121
42B	23-1/2	597	17-1/2	445	16-1/2	419	16-1/2	419	6-1/8	155	6-3/8	162
48C	27-1/2	699	21	533	20	508	20	508	7-7/8	200	8-5/8	219
50/60C	27-1/2	699	21	533	20	508	20	508	7-7/8	200	10	254
60D	27-1/2	699	24-1/2	622	23-1/2	597	23-1/2	597	9-5/8	244	10-1/2	267

## DIMENSIONS - FURNACE/COIL COMBINED DIMENSIONS



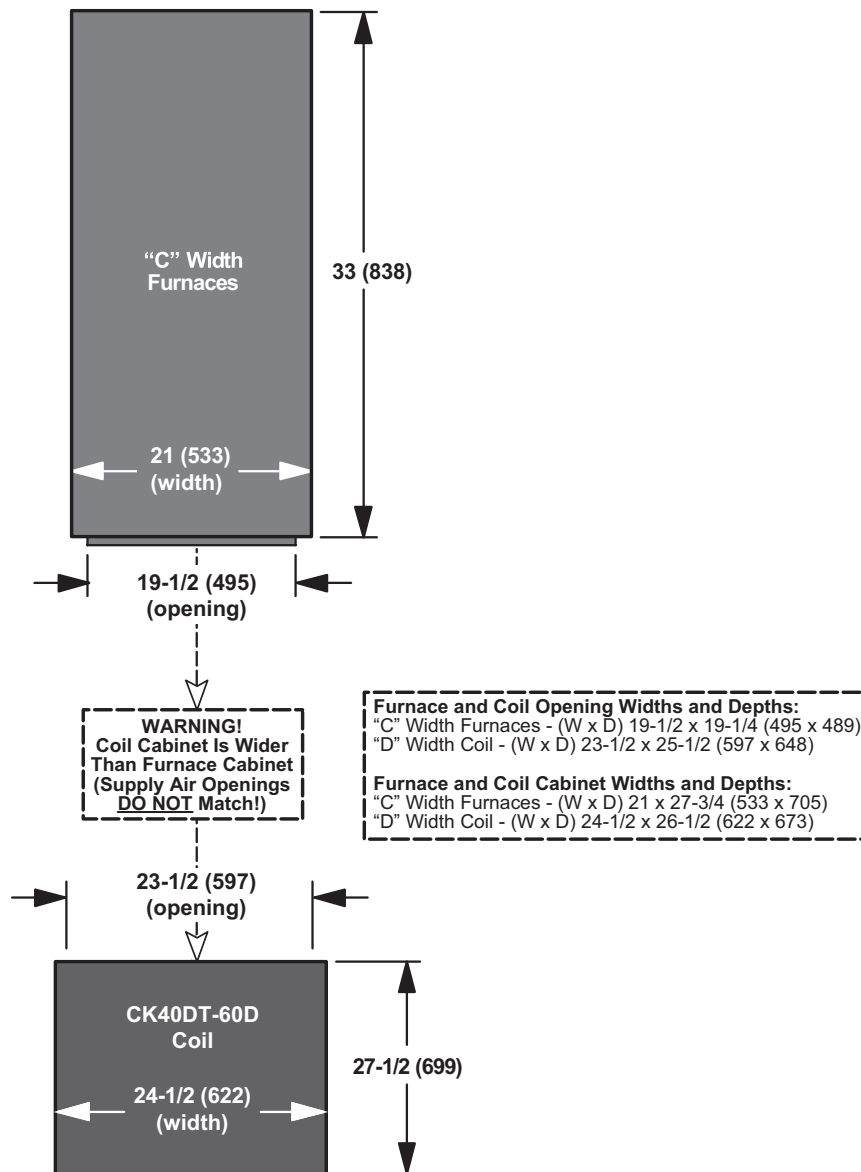
Size	Coil Width		Furnace Width		Coil Height		Overall Height	
	in.	mm	in.	mm	in.	mm	in.	mm
24A	14-1/2	368	14-1/2	368	18	457	51	1295
24B	17-1/2	445	17-1/2	445	18	457	51	1295
30/36B	17-1/2	445	17-1/2	445	23-1/2	597	56-1/2	1435
30/36C	21	533	21	533	23-1/2	597	56-1/2	1435
42B	17-1/2	445	17-1/2	445	23-1/2	597	56-1/2	1435
48C	21	533	21	533	27-1/2	699	60-1/2	1537
50/60C	21	533	21	533	27-1/2	699	60-1/2	1537
60D	24-1/2	622	24-1/2	622	27-1/2	699	60-1/2	1537

## DIMENSIONS

### PHYSICAL MATCHES

#### DOWNFLOW GAS FURNACES – “C” WIDTH FURNACES WITH “D” WIDTH COIL

(NOTE – Coil DOES NOT match furnace cabinet width and depth or supply air opening width and depth!)



## REVISIONS

Sections	Description of Change
Specifications	Added Factory Installed Expansion Valve (TXV) data



Visit us at [www.Lennox.com](http://www.Lennox.com)

For the latest technical information, [www.LennoxPros.com](http://www.LennoxPros.com)

Contact us at 1-800-4-LENNOX

NOTE - Due to Lennox' 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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