CK40HT



Horizontal | Cased | Quantum™ Coil | TXV Furnished | R-454B

RESIDENTIAL PRODUCT SPECIFICATIONS (EHB)

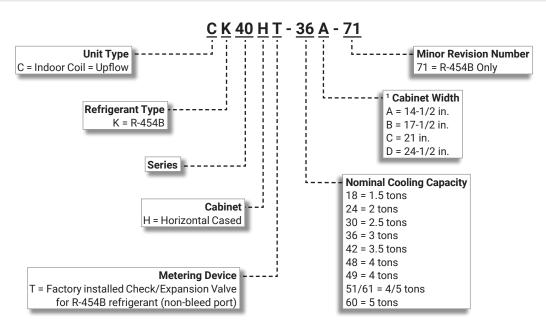
1.5 to 5 Tons







MODEL NUMBER IDENTIFICATION



 $^{^{\}mbox{\tiny 1}}$ Furnaces with the same letter designation physically match the indoor coil.

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Air Resistance
Approvals And Warranty
Dimensions
Dimensions - Furnace/Coil Combined Dimensions
Features
Model Number Identification
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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
- · 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 for additional details.

FEATURES

APPLICATIONS

- 1.5 to 5 ton nominal sizes
- Lennox designed horizontal indoor coils can easily be installed with most Lennox horizontal 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 <u>with</u> a factory installed RDS mitigation control - The mitigation control is integral to the furnace ignition control board.

Furnaces <u>without</u> 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
- 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

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)	27A03					
	Any Non-Communicating 24V Furnace	27A02					
NOTE - Communicating Blower Control Board can be used universally with Lennox® communicating furnace or any non-communicating 24 volt furnace							

NOTE - Communicating Blower Control Board can be used universally with Lennox® communicating furnace or any non-communicating 24 volt furnace.

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

SPECIFIC	ATIONS			1.5 TO 2 TON
Size		18A	24A	24B
Nominal Tonn	nage	1.5	2	2
Refrigerant Ty	/ре	R-454B	R-454B	R-454B
Factory Instal	lled Expansion Valve (TXV)	26Z70	26Z70	26Z70
Furnace Cabi	net Matching Letter Width	А	A	В
Coil & Furnac	e Cabinet Width - in.	14-1/2	14-1/2	17-1/2
Connections	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
Indoor	Net face area - ft.2	3.5	3.5	4.67
Coil	Tube diameter - in.	3/8	3/8	3/8
	Rows	2	3	2
	Fins - in.	19	14	19
Shipping Data	a - Ibs.	44	46	50

SPECIFIC	ATIONS				2.	5 TO 3 TON
Size		30A	30B	36A	36B	36C
Nominal Tonn	age	2.5	2.5	3	3	3
Refrigerant Ty	/pe	R-454B	R-454B	R-454B	R-454B	R-454B
Factory Instal	lled Expansion Valve (TXV)	26Z70	26Z70	26Z70	26Z70	26Z70
Furnace Cabi	net Matching Letter Width	А	В	А	В	С
Coil & Furnac	e Cabinet Width - in.	14-1/2	17-1/2	14-1/2	17-1/2	21
Connections	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
Indoor	Net face area - ft.2	4.33	4.67	3.5	4.67	5.83
Coil	Tube diameter - in.	3/8	3/8	3/8	3/8	3/8
	Rows	3	3	3	2	2
	Fins per inch	16	14	12	18	18
Shipping Data	a - Ibs.	56	54	48	49	56

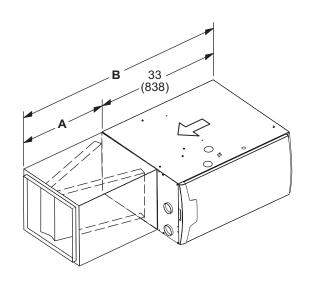
SPECIFIC	ATIONS				3.5 TO 4 TON
Size		42B	42C	48B	48C
Nominal Tonr	nage	3.5	3.5	4	4
Refrigerant Ty	уре	R-454B	R-454B	R-454B	R-454B
Factory Insta	lled Expansion Valve (TXV)	26Z71	26Z71	26 Z 71	26Z71
Furnace Cabi	net Matching Letter Width	В	С	В	С
Coil & Furnac	ce Cabinet Width - in.	17-1/2	21	17-1/2	21
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	Net face area - ft.2	5.78	5.83	5.78	5.83
Coil	Tube diameter - in.	3/8	3/8	3/8	3/8
	Rows	4	3	3	3
	Fins per inch	12	13	12	12
Shipping Data	a - Ibs.	67	67	61	60

SPECIFIC	ATIONS		4 TO 5 TON
Size		51/61C	60D
Nominal Tonr	nage	4 / 5	5
Refrigerant T	ype	R-454B	R-454B
Factory Insta	lled Expansion Valve (TXV)	26 Z 71	26Z72
Furnace Cabi	net Matching Letter Width	С	D
¹ Coil & Furna	ace Cabinet Width - in.	21	24-1/2
Connections	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
Indoor	Net face area - ft.2	7.22	7.94
Coil	Tube diameter - in.	3/8	3/8
	Rows	3	3
	Fins per inch	13	12
Shipping Data	a - Ibs.	70	79

AIR R	ESIST	ANCE												
A :		Total Air Resistance - in. w.g.												
Air Volume	18	3A	24	IA.	24	ŀВ	30	PΑ	30)B	36	6A	36	6B
cfm	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 R	ESIST	ISTANCE												
Air		Total Air Resistance - in. w.g.												
Volume	36	C	42	2B	42	2C	48	BB	48	BC .	51/0	61C	60	D
cfm	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet
	Coil	Coil	Coil	Coil	Coil	Coil	Coil	Coil	Coil	Coil	Coil	Coil	Coil	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

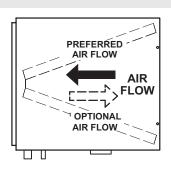


HORIZONTAL POSITION

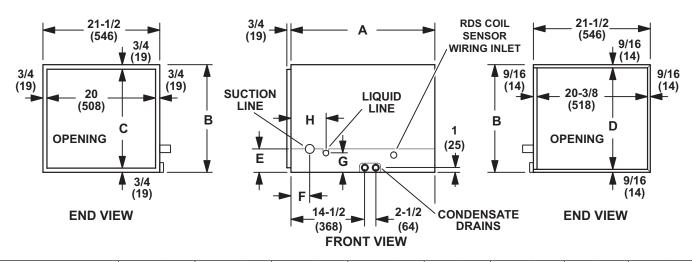
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DIMENSIONS

 Optional right-hand airflow requires a field fabricated
 in. (152 mm) spacer in-between the furnace and coil.



TOP VIEW



Si=o	A		В		С		D		E		F		G		Н	
Size	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
51/61C	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

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









Visit us at www.Lennox.com
For the latest technical information, www.LennoxPros.com
Contact us at 1-800-4-LENNOX