

TECHNICAL SPECIFICATIONS

FT4BF-KA/B Series

R-410A Extra High Efficiency Heat Pump

16 SEER Residential System 2 - 5 Ton Capacity

FT4BF-KA/B Series now offers the choice of the heat pump that uses a more efficient and environmentally friendly refrigerant designated R-410A. The FT4BF-KA/B Series of heat pumps offers exceptional performance as well as environmental protection. These models, when matched with our variable speed air handlers or variable speed equipped gas furnaces, offer a line of high quality heat pump systems rated up to 16 SEER and 9.0 HSPF.



WARRANTY

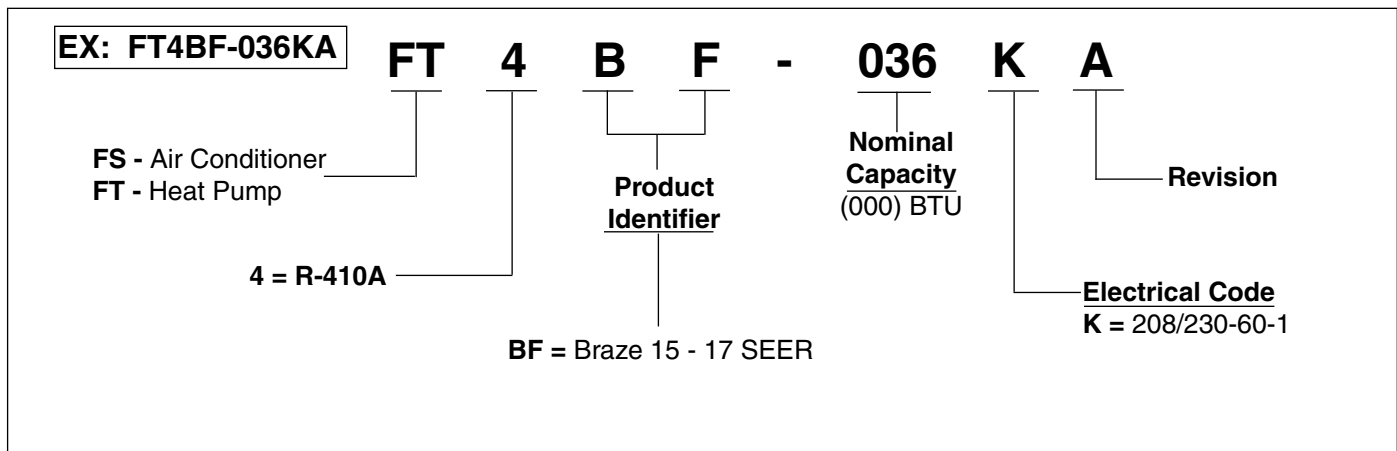
- This product offers a 10-year all-parts warranty.
- This product offers a 10 year Quality Pledge to replace the entire unit, if the unit's major component (heat exchanger or compressor) fails within the first 10 years of operation, to the original owner. All split system products must be installed with a matched indoor air handler or indoor coil to qualify.
- Consumer product registration required for both 10 year All Parts Warranty and Quality Pledge within a limited period of time after the installation. See current warranty document or visit our consumer web site listed on the back of this document for warranty details.

FEATURES and BENEFITS

- **R-410A Refrigerant** – Earth friendly non-ozone depleting refrigerant.
- **Comfort Alert™ Module** – Detects system and electrical problem conditions. A diagnostics key directs the service technician to the root cause of a problem.

- **Copeland Scroll UltraTech™ Compressor** – The Ultra Tech Compressor operates with 2 stages of heating and cooling capacities to provide superior comfort and efficiency. Copeland's proven and simple design equates to years of comfort and reliability for the homeowner with virtually silent operation.
- **Durable, Attractive Cabinet** – Designed using galvanized steel with a polyester urethane finish. The 950 hour salt spray finish is 1.5 mil thick and resists corrosion 50% better than comparable units.
- **Composite Base Pan** – Absorbs sound and is corrosion resistant. Composite is also stronger and lighter than steel.
- **Copper Tube / Aluminum Fin Coils** – Both indoor and outdoor coils are designed to optimize heat transfer, minimize size and cost, and increase durability and reliability.
- **Demand Defrost** – Provides additional energy savings in heating by defrosting only when necessary
- **Louvered Condenser Guard** – Durable metal guard protects the coil from yard hazards and extreme weather.
- **Removable Top Grille Assembly** – Allows ease of service from the top without disconnecting fan motor leads.
- **Compressor Sound Blanket** – Engineered to significantly reduce unwanted compressor noise.
- **Swept-Wing Fan Blade** – Designed to significantly reduce unwanted noise.
- **Low Pressure Switch** – Loss of charge protection ensures long compressor life. Auto-reset feature prevents nuisance service visits.
- **High Pressure Switch** – Protects against abnormally high system pressures. Auto-reset feature prevents nuisance service visits.
- **Liquid Line Filter Drier** – Included with unit, field installed.
- **One Piece Top/Orifice** – Designed for maximum airflow and quiet operation.
- **Common Suction Service Port** – This port allows the contractor to read the suction pressure in all modes of operation without removing any panels, saving time and increasing serviceability.
- **Three Minute Restart Time Delay** – When the unit shuts down, a three minute delay keeps the unit from restarting, eliminating the highest cause for compressor failure.
- **Suction Accumulator** – Protection from liquid flood back and future compressor failures.
- **Hot Gas Muffler** – Reduces compressor noise and vibration.
- **Easy Compressor and Control Access** – Designed to make servicing easier for the contractor, access panels are provided to all controls and the compressor from the side of the unit.

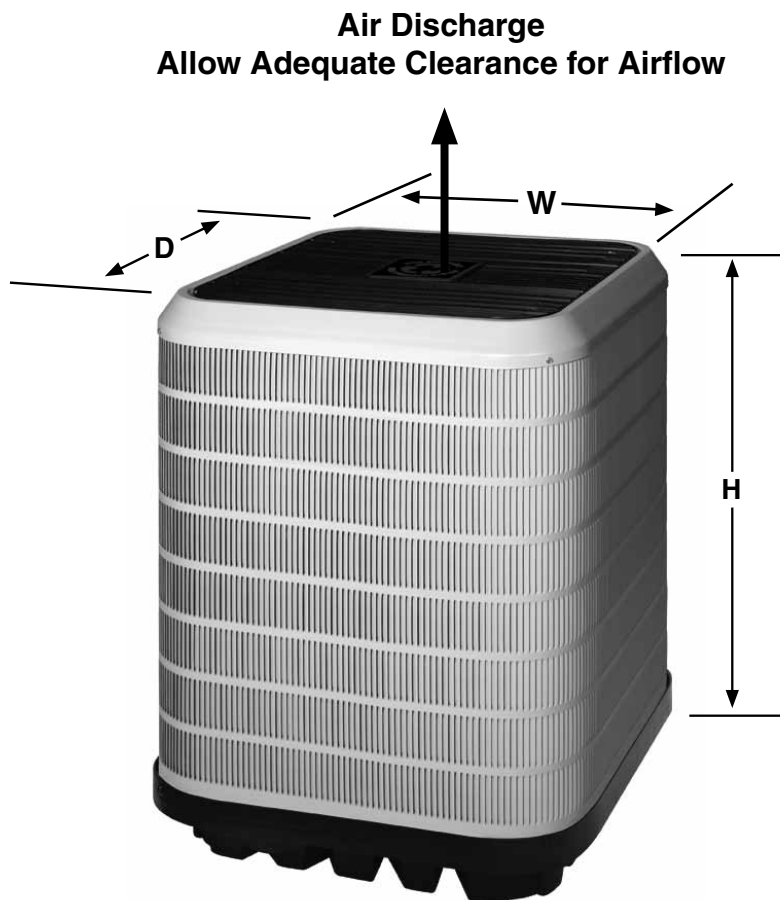
MODEL IDENTIFICATION CODES



DIMENSIONS

HEAT PUMP OUTDOOR SECTION

FT4BF	024KB	036KA	048KA	060KA
H	45 1/2	45 1/2	45 1/2	45 1/2
W	31 1/4	31 1/4	31 1/4	31 1/4
D	31 1/4	31 1/4	31 1/4	31 1/4



PHYSICAL AND ELECTRICAL SPECIFICATIONS / OUTDOOR UNITS

16 SEER — R-410A Extra High Efficiency — Single Phase

Model Number FT4BF		024KB	036KA	048KA	060KA	
Electrical Data	Volts-Cycles-Phase (1)		208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1
	Total Amps		11.4	17.9	24.0	25.9
	Delay Fuse Max. (2)		20	35	50	50
	Min. Circuit Ampacity		14.0	22.1	29.3	31.7
Condenser Data	Coil	Area	25.4	25.4	25.4	25.4
		Rows-FPI	1-20	2-18	2-18	2-18
		Tube Dia	3/8" O.D.	3/8" O.D.	3/8" O.D.	3/8" O.D.
	Fan Motor	Type	PSC	PSC	BLDC	BLDC
		Speeds	2	2	2	2
		Amps	1.3	1.3	2.9	2.9
		HP	1/4	1/4	1/3	1/3
	Fan Blade	Dia-# Blades	24"- 2	24"- 2	24"- 2	24"- 2
		SCFM	3600	4000	4000	4000
	Compressor Data	RLA	10.3	16.6	21.1	23.0
LRA		52	82	96	118	
Refrigerant suction line O.D.(all length of liquid line are 3/8" O.D.)		0-24 ft.	3/4"	7/8" (4)	7/8"	7/8"
		25-39 ft.	7/8"	1-1/8" (3)	1-1/8" (3)	1-1/8" (3)
		40-75 ft.	7/8"	1-1/8" (3)	1-1/8" (3)	1-1/8" (3)
Refrigerant charge (R-410A) in ounces for outdoor unit, indoor unit and 15' lineset. (5)		211	243	272	272	
Weight Approximate (lbs.)	Net	253	277	277	301	
	Ship	265	289	289	313	
Sound Ratings db		69	72	72	74	

(1) Operating voltage range: 187V minimum - 253 V maximum.

(2) HACR type circuit breakers may be used.

(3) Requires 1-1/8 to 7/8" reducer from unit to lineset.

(4) Use of a 3/4" lineset will result in approximately 2% loss in capacity.

(5) Additional charge for line sets above 15 feet. Values based on suction line as follows with 3/8" liquid line.

a) 3/4" = 0.6 oz per additional foot.

b) 7/8" = 0.7 oz per additional foot.

c) 1 1/8" = 0.8 oz per additional foot.

ACCESSORIES - Condensing Unit

Start Assist Kit - 912933

Provides additional starting torque for the compressor motor when operating with low line voltage or high operating temperatures.

Extreme Wind Condition Mounting Kit - 920900

Snow Stand Kit - 920636

16 SEER COOLING EXPANDED RATINGS

FT4BF-024KB + C6B(A,H)-X26(C,U)-B + VSB - High Speed

FT4BF-024KB + B6VMAX24K-B - High Speed

CFM	ODT		75°F			85°F			95°F			105°F			115°F		
	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
750	80	62	24.7	21.8	1.49	23.6	21.4	1.66	22.4	21.0	1.85	21.1	20.6	2.07	19.8	19.5	2.32
	80	67	26.6	18.2	1.50	25.4	17.6	1.68	24.1	17.1	1.87	22.6	16.5	2.09	21.1	15.8	2.33
	80	72	28.6	14.4	1.51	27.3	13.9	1.69	25.9	13.4	1.88	24.3	12.8	2.11	22.6	12.2	2.36
	75	63	24.7	17.6	1.49	23.6	17.1	1.66	22.4	16.5	1.85	21.1	15.9	2.07	19.6	15.2	2.31
850	80	62	25.4	23.3	1.50	24.2	22.8	1.67	23.1	22.3	1.85	21.8	21.8	2.08	20.5	20.5	2.33
	80	67	27.2	19.3	1.50	25.9	18.8	1.68	24.6	18.2	1.87	23.1	17.6	2.10	21.5	16.9	2.34
	80	72	29.2	15.1	1.52	27.8	14.6	1.70	26.3	14.1	1.89	24.7	13.5	2.12	23.0	12.8	2.37
	75	63	25.3	18.7	1.50	24.1	18.1	1.67	22.9	17.6	1.86	21.5	16.9	2.08	19.9	16.2	2.32
950	80	62	25.9	24.8	1.52	24.9	24.1	1.67	23.8	23.4	1.86	22.5	22.5	2.09	21.1	21.1	2.34
	80	67	27.7	20.5	1.51	26.3	19.9	1.68	25.0	19.3	1.87	23.4	18.7	2.10	21.8	17.9	2.35
	80	72	29.7	15.8	1.53	28.2	15.3	1.70	26.7	14.7	1.89	25.0	14.1	2.12	23.2	13.4	2.37
	75	63	25.8	19.7	1.51	24.5	19.2	1.67	23.2	18.6	1.86	21.8	17.9	2.08	20.3	17.2	2.32

FT4BF-024KB + C6B(A,H)-X26(C,U)-B + VSB - Low Speed

FT4BF-024KB + B6VMAX24K-B - Low Speed

CFM	ODT		75°F			85°F			95°F			105°F			115°F		
	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
540	80	62	18.2	16.1	1.04	17.4	15.8	1.16	16.5	15.5	1.32	15.5	15.2	1.50	14.5	14.3	1.70
	80	67	19.8	13.5	1.04	18.9	13.1	1.16	17.8	12.6	1.32	16.7	12.2	1.50	15.5	11.7	1.69
	80	72	21.5	10.7	1.03	20.5	10.4	1.16	19.3	9.9	1.32	18.1	9.5	1.49	16.7	9.0	1.69
	75	63	18.3	13.0	1.04	17.5	12.6	1.16	16.5	12.2	1.33	15.5	11.7	1.50	14.3	11.2	1.70
640	80	62	19.0	17.7	1.04	18.1	17.3	1.16	17.2	16.7	1.32	16.3	16.3	1.50	15.3	15.2	1.69
	80	67	20.4	14.7	1.04	19.5	14.3	1.16	18.4	13.8	1.32	17.2	13.3	1.50	15.9	12.8	1.69
	80	72	22.1	11.5	1.04	21.1	11.1	1.16	19.8	10.6	1.32	18.5	10.1	1.50	17.2	9.6	1.69
	75	63	18.9	14.1	1.04	18.0	13.7	1.16	17.0	13.3	1.32	15.9	12.8	1.50	14.7	12.2	1.70
740	80	62	19.7	18.8	1.05	18.9	18.3	1.16	18.0	17.7	1.32	17.0	16.9	1.50	15.9	15.8	1.69
	80	67	21.0	15.9	1.04	19.9	15.5	1.16	18.8	15.0	1.32	17.6	14.5	1.50	16.3	13.9	1.69
	80	72	22.6	12.1	1.04	21.5	11.8	1.16	20.2	11.3	1.32	18.9	10.7	1.50	17.4	10.2	1.69
	75	63	19.4	15.2	1.05	18.5	14.8	1.16	17.4	14.3	1.32	16.2	13.8	1.50	15.0	13.2	1.70

FT4BF-036KA + C6B(A,H)-X36(C,U)-(B,C) + VSB - High Speed

FT4BF-036KA + B6VMAX36K-B - High Speed

CFM	O.D.T		75°F			85°F			95°F			105°F			115°F		
	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
1150	80	62	36.6	32.9	2.36	34.9	32.2	2.62	33.3	31.7	2.86	31.6	31.1	3.15	29.8	29.4	3.48
	80	67	39.5	27.4	2.37	37.6	26.7	2.65	35.8	26.0	2.88	33.8	25.2	3.17	31.6	24.3	3.50
	80	72	42.6	21.7	2.39	40.6	20.9	2.67	38.7	20.3	2.91	36.5	19.5	3.20	34.2	18.7	3.52
	75	63	36.7	26.6	2.36	35.0	25.8	2.63	33.4	25.1	2.87	31.5	24.3	3.15	29.5	23.4	3.48
1250	80	62	37.3	34.3	2.36	35.6	33.6	2.63	34.0	32.9	2.87	32.3	32.3	3.16	30.5	30.5	3.49
	80	67	40.0	28.6	2.37	38.1	27.9	2.65	36.3	27.2	2.89	34.3	26.4	3.18	32.0	25.5	3.50
	80	72	43.2	22.4	2.40	41.1	21.7	2.68	39.1	21.0	2.91	37.0	20.2	3.20	34.5	19.4	3.53
	75	63	37.3	27.7	2.37	35.5	26.9	2.63	33.8	26.2	2.87	31.9	25.4	3.16	29.8	24.5	3.49
1350	80	62	37.7	36.0	2.39	36.2	35.1	2.63	34.7	34.2	2.87	33.0	33.0	3.17	31.2	31.1	3.49
	80	67	40.5	29.8	2.39	38.5	29.0	2.65	36.7	28.3	2.89	34.6	27.5	3.18	32.4	26.6	3.51
	80	72	43.7	23.2	2.41	41.5	22.4	2.68	39.5	21.7	2.92	37.3	21.0	3.21	34.8	20.1	3.52
	75	63	37.8	28.8	2.38	36.0	28.0	2.64	34.2	27.3	2.87	32.3	26.4	3.16	30.2	25.5	3.49

FT4BF-036KA + C6B(A,H)-X36(C,U)-(B,C) + VSB - Low Speed

FT4BF-036KA + B6VMAX36K-B - Low Speed

CFM	O.D.T		75°F			85°F			95°F			105°F			115°F		
	E.D.B.	E.W.B.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.	T.C.	S.C.	K.W.
800	80	62	25.4	23.3	1.47	24.3	22.8	1.64	23.2	22.4	1.83	22.0	21.7	2.06	20.7	20.4	2.33
	80	67	27.6	19.4	1.44	26.3	18.9	1.61	25.0	18.4	1.81	23.6	17.8	2.04	21.9	17.2	2.30
	80	72	30.1	15.3	1.41	28.8	14.8	1.58	27.3	14.3	1.77	25.6	13.8	2.00	23.9	13.2	2.26
	75	63	25.6	18.8	1.47	24.4	18.2	1.64	23.2	17.7	1.83	21.9	17.1	2.06	20.3	16.5	2.33
900	80	62	26.3	24.5	1.47	25.0	24.0	1.63	24.0	23.3	1.82	22.8	22.8	2.05	21.5	21.4	2.30
	80	67	28.1	20.7	1.44	26.8	20.1	1.60	25.5	19.6	1.80	24.0	19.1	2.03	22.3	18.4	2.29
	80	72	30.6	16.1	1.41	29.1	15.6	1.57	27.7	15.1	1.77	26.1	14.5	2.00	24.2	13.9	2.26
	75	63	26.1	20.0	1.47	24.9	19.4	1.63	23.7	18.9	1.83	22.3	18.3	2.06	20.7	17.6	2.32
1000	80	62	26.9	25.7	1.47	25.8	25.1	1.62	24.8	24.4	1.81	23.5	23.5	2.04	22.1	22.1	2.30
	80	67	28.7	22.0	1.43	27.2	21.4	1.59	25.9	20.9	1.80	24.4	20.3	2.02	22.7	19.6	2.29
	80	72	31.1	16.9	1.40	29.5	16.3	1.56	28.1	15.8	1.76	26.4	15.3	1.99	24.6	14.6	2.25
	75	63	26.6	21.1	1.47	25.3	20.5	1.63	24.1	20.0	1.82	22.6	19.4	2.05	21.0	18.7	2.32

SYSTEM HEATING AND COOLING CAPACITIES

16 SEER — Extra High Efficiency — Single Phase

With this Coil										
Outdoor Unit Number FT4BF	Indoor Unit Number C6BA/H-	Cooling				Indoor CFM		Heating		
		Low Speed Capacity (Btu/h)	High Speed Capacity (Btu/h)	SEER	EER	Low Speed SCFM	High Speed SCFM	Low Speed Capacity (Btu/h)	High Speed Capacity (Btu/h)	HSPF
024KB	X26(C.U)-B+MB7(E.V)M	18000	24000	16	13.0	640	850	18000	24000	9.0
036KA	X36(C.U)-B+MB7(E.V)M	25000	36000	16	12.5	900	1250	24000	36000	9.0
036KA	X36(C.U)-C+MB7(E.V)M	25000	36000	16	12.5	900	1250	24000	36000	9.0
048KA	X48(C.U)-C+MB7(E.V)M	34000	48000	16	12.5	1140	1700	31000	46000	9.0
060KA	X60(C.U)-C+MB7(E.V)M	41000	55000	16	11.65	1200	1800	37000	52500	8.5

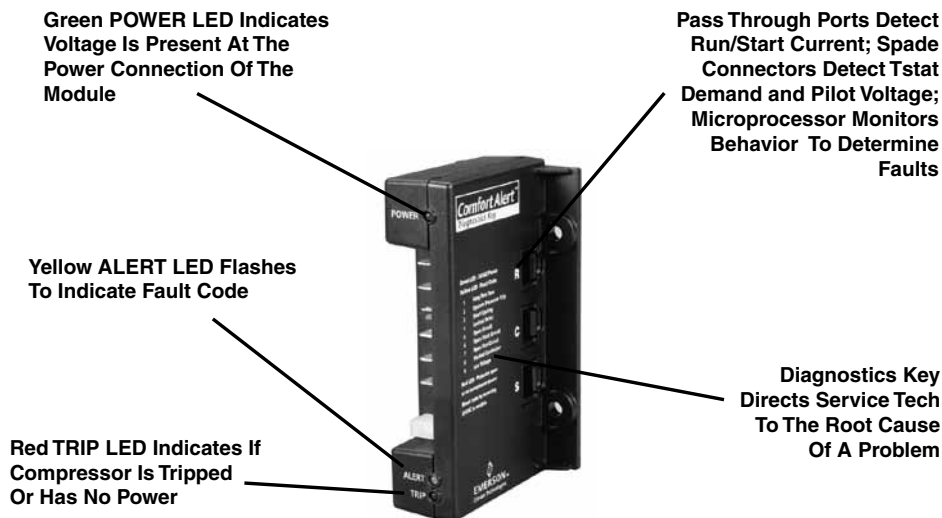
With this Air Handler										
Outdoor Unit Number FT4BF	Indoor Unit Number B6VMA	Cooling				Indoor CFM		Heating		
		Low Speed Capacity (Btu/h)	High Speed Capacity (Btu/h)	SEER	EER	Low Speed SCFM	High Speed SCFM	Low Speed Capacity (Btu/h)	High Speed Capacity (Btu/h)	HSPF
024KB	X24KB	18000	24000	16	13.0	640	850	18000	24000	9.0
036KA	X36KB	25000	36000	16	12.5	900	1250	24000	36000	9.0
048KA	X48KC	34000	48000	16	12.5	1140	1700	31000	46000	9.0
060KA	X60KC	41000	55000	16	11.65	1200	1800	37000	52500	8.5

Air handlers and coils used in tables are designed and manufactured by NORDYNE.

See current AHRI Directory for certified combinations and ratings.

www.ahridirectory.org

COMFORT ALERT™ DIAGNOSTIC MODULE



GENERAL TERMS OF LIMITED WARRANTY

NORDYNE will furnish a replacement for any part of this product which fails in normal use and service within the first ten years of installation, in accordance with the terms of the warranty.

For complete details of the Limited Warranty, including applicable terms and conditions, see your local installer or contact the NORDYNE warranty department for a copy.



8000 Phoenix Parkway | O'Fallon, MO 63368-3827

Specifications and illustrations subject to change without notice and without incurring obligations. Printed in U.S.A (10/2013)

200D-1013 (Replaces 200D-0412)