

TECHNICAL SPECIFICATIONS

ES6BF Series

R-410A Extra High Efficiency Air Conditioner 16 SEER Residential System 2 - 3 Ton Capacity

The ES6BF Series now offers the choice of an air conditioner that uses a more efficient and environmentally friendly refrigerant designated R-410A. The ES6BF Series air conditioners offers exceptional performance. The unit, when combined with our engineered coils or air handlers, offers a line of quality, 16 SEER split system cooling equipment.



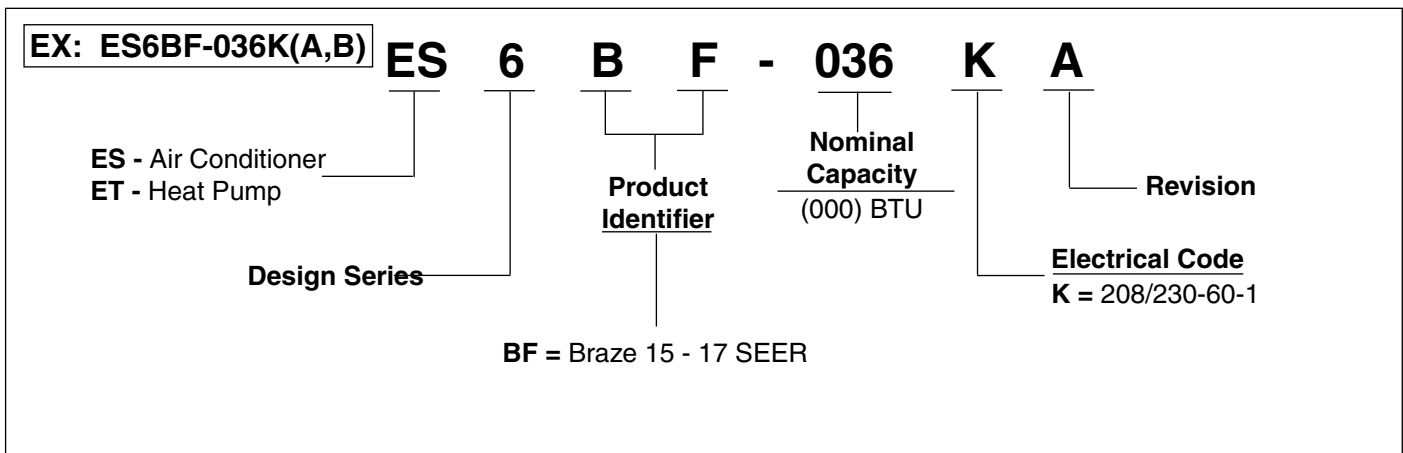
WARRANTY

- This product offers a 10-year all-parts warranty.
- This product offers a 1 year Quality Pledge to replace the entire unit, if the unit's major component (heat exchanger or compressor) fails within the first year 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 1 year Quality Pledge within a limited period of time after the installation. See current warranty document or visit our consumer web site for warranty details.

FEATURES and BENEFITS

- **R-410A Refrigerant:** Earth friendly non-ozone depleting refrigerant.
- **Copeland Scroll Compressor:** 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.
- **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.
- **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.
- **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.
- **Micro-Channel:** All aluminum coils for high corrosion resistance.

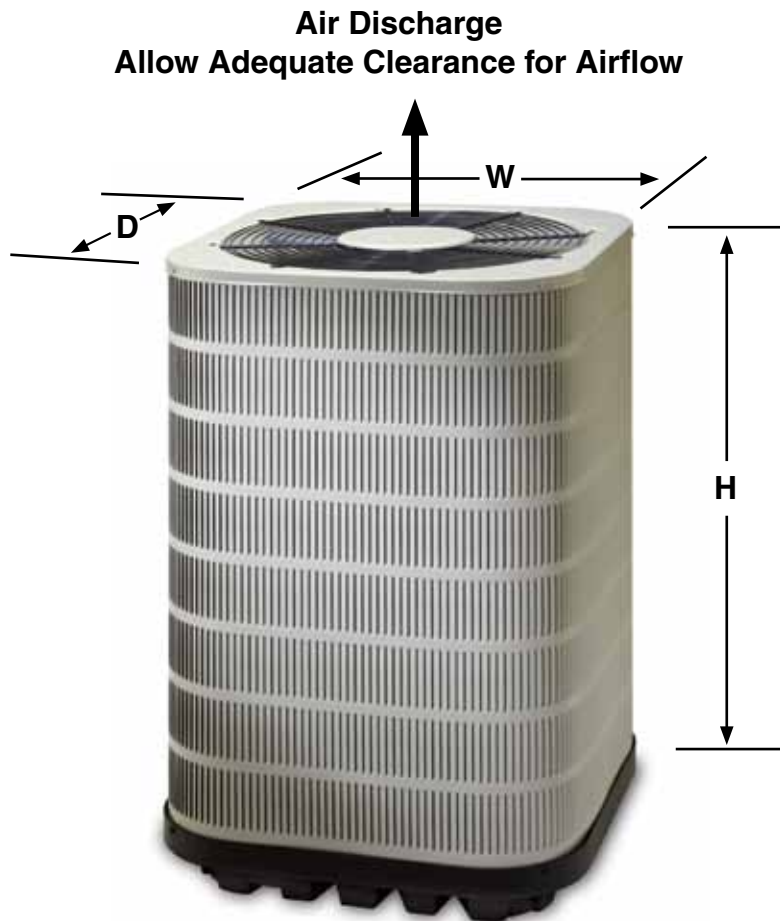
MODEL IDENTIFICATION CODES



DIMENSIONS

AIR CONDITIONER OUTDOOR SECTION

ES6BF	024K	030K	036K
H	35 1/2"	27 1/2"	39 1/2"
W	22 3/4"	30 3/4"	30 3/4"
D	22 3/4"	30 3/4"	30 3/4"



PHYSICAL AND ELECTRICAL SPECIFICATIONS / OUTDOOR UNITS

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

Model Number ES6BF-			024K	030K	036K
Electrical Data	Volts-Cycles-Phase (1)		208/230-60-1		
	Total Amps		14.1	13.7	15.1
	Delay Fuse Max. (2)		30	25	30
	Min. Circuit Ampacity		17.5	16.9	18.6
Component Data	Coil	Area	13.3	15.2	22.8
		Rows-FPI	1-23	1-18	1-18
		Tube Dia	MC		
	Fan Motor	Type	PSC		
		Amps	0.7	0.9	1.0
		HP	0.10	0.13	0.20
	Compressor Data	RLA	13.4	12.8	14.1
		LRA	58.3	64.0	77.0
Refrigerant suction line O.D. NOTE: Liquid line is 3/8" O.D. for entire length.		0-24 ft.	3/4"	3/4"	3/4"
		25-39 ft.	3/4"	3/4"	7/8" (3)
		40-75 ft.	3/4"	3/4"	7/8" (3)
Approximate Weight (lbs.)		Net	164	179	198
		Ship	171	187	207
Sound Ratings db			74	79	79

(1) Operating Voltage Range: 187v min. - 253v max.

(2) HACR Type Circuit Breakers may be used.

(3) Requires 7/8" to 3/4" reducer from line to unit.

(4) Requires 7/8" to 1-1/8" reducer from line to unit.

(5) Additional charge fro 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

COPPER WIRE SIZE — AWG (1% Voltage Drop)				
Supply Wire Length-Feet				Supply Circuit Ampacity
200	150	100	50	
6	8	10	14	15
4	6	8	12	20
4	6	8	10	25
4	4	6	10	30
3	4	6	8	35
3	4	6	8	40
2	3	4	6	45
2	3	4	6	50

Wire Size based on N.E.C. for 60° type copper conductors.

SYSTEM COOLING CAPACITIES

16 SEER — Extra High Efficiency — Single Phase

With this Air Handler					
Outdoor Unit	Indoor Unit	BTUH	SEER	EER	SCFM
ES6BF-024K	B6EMMX24K-A	24,000	16.0	13.0	835
ES6BF-024K	B6EMMX24K-B	24,000	16.0	13.0	835
ES6BF-030K	B6EMMX30K-A	29,000	16.0	13.0	995
ES6BF-030K	B6EMMX30K-B	29,000	16.0	13.0	995
ES6BF-036K	B6EMMX36K-B	34,200	16.0	13.0	1035

ES6BF-024K	B6VMAX24K-A	24,000	16.0	13.0	840
ES6BF-024K	B6VMAX24K-B	24,000	16.0	13.0	840
ES6BF-030K	B6VMAX30K-A	30,000	16.0	13.0	980
ES6BF-030K	B6VMAX30K-B	30,000	16.0	13.0	980
ES6BF-036K	B6VMAX36K-B	35,600	16.0	13.0	1045

With this Coil					
ES6BF-024K	C7B(A,H)M01824(C,U)-A + TXV	24,000	14.0	12.2	845
ES6BF-024K	C7B(A,H)M01824(C,U)-B + TXV	24,000	14.0	12.2	845
ES6BF-030K	C7B(A,H)M03036(C,U)-A + TXV	27,800	14.0	12.2	860
ES6BF-030K	C7B(A,H)M03036(C,U)-B + TXV	27,800	14.0	12.2	860
ES6BF-030K	C7B(A,H)M030(C,U)-C + TXV	27,800	14.0	12.2	860
ES6BF-036K	C7B(A,H)M03642(C,U)-B + TXV	35,000	14.0	12.2	1325
ES6BF-036K	C7B(A,H)M03648(C,U)-C + TXV	35,000	14.0	12.2	1325

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

EXPANDED COOLING PERFORMANCE - LOOSE COIL

ES6BF-024K C7B(A,H)M01824(C,U)-B + TXV

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	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.	T.C.	S.C.	K.W.
700	80	62	23.9	18.7	1.42	23.0	18.6	1.59	22.1	18.7	1.76	21.1	18.4	1.96	20.00	19.40	2.18	18.87	18.31	2.43
	80	67	26.1	15.0	1.43	25.1	14.9	1.60	24.0	15.1	1.77	22.9	14.8	1.97	21.71	14.57	2.19	20.42	13.64	2.44
	80	72	28.7	11.7	1.43	27.6	11.6	1.61	26.4	11.9	1.79	25.2	11.6	1.99	23.85	11.46	2.21	22.35	11.74	2.48
	75	62	23.7	15.2	1.42	22.8	15.1	1.59	21.9	15.2	1.76	20.9	14.9	1.96	19.75	13.74	2.18	18.57	14.74	2.43
800	80	62	24.5	20.2	1.46	23.6	20.6	1.63	22.6	20.1	1.80	21.6	20.0	2.00	20.62	19.82	2.22	19.65	19.49	2.47
	80	67	26.7	15.9	1.46	25.6	16.4	1.64	24.5	16.0	1.81	23.3	15.8	2.01	22.10	15.85	2.23	20.75	15.83	2.49
	80	72	29.3	12.3	1.47	28.2	12.8	1.65	26.9	12.5	1.83	25.6	12.4	2.03	24.20	12.46	2.26	22.62	12.53	2.52
	75	62	24.2	16.1	1.46	23.3	16.5	1.62	22.3	16.1	1.80	21.2	15.9	2.00	20.10	15.86	2.22	18.95	16.29	2.47
900	80	62	25.0	21.8	1.50	24.1	21.9	1.66	23.2	21.4	1.84	22.3	21.2	2.04	21.33	20.61	2.26	20.21	20.13	2.51
	80	67	27.1	17.1	1.50	26.1	17.3	1.67	24.9	16.9	1.85	23.7	16.8	2.05	22.39	16.71	2.27	21.00	16.78	2.53
	80	72	29.8	13.1	1.51	28.6	13.4	1.69	27.3	13.0	1.88	25.9	13.1	2.07	24.37	13.04	2.30	22.81	13.17	2.56
	75	62	24.7	17.3	1.50	23.7	17.4	1.66	22.7	17.0	1.84	21.6	16.9	2.04	20.43	17.31	2.26	19.20	17.34	2.50

ES6BF-030K C7B(A,H)M03036(C,U)-B + TXV

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	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.	T.C.	S.C.	K.W.
875	80	62	29.5	22.0	1.67	28.3	21.8	1.84	13.4	361.1	2.03	11.6	302.9	2.25	24.77	24.25	2.50	23.29	22.81	2.79
	80	67	32.0	18.2	1.67	30.7	18.1	1.84	29.4	18.2	2.04	28.0	17.9	2.26	26.51	17.58	2.51	24.88	16.63	2.80
	80	72	35.0	14.1	1.67	33.6	14.1	1.84	32.2	14.4	2.04	30.6	14.1	2.26	29.01	13.87	2.52	27.19	14.23	2.82
	75	62	29.3	18.5	1.67	28.2	18.3	1.84	27.0	18.4	2.03	25.7	18.0	2.25	24.32	16.57	2.50	22.78	17.77	2.79
1000	80	62	30.5	25.2	1.72	29.3	25.7	1.89	13.5	377.1	2.08	11.6	311.3	2.30	25.68	24.73	2.55	24.40	24.20	2.85
	80	67	32.7	19.3	1.72	31.4	19.8	1.89	30.0	19.3	2.08	28.6	19.1	2.30	27.00	19.05	2.56	25.30	18.99	2.85
	80	72	35.7	14.8	1.72	34.2	15.5	1.89	32.7	15.0	2.09	31.0	14.9	2.31	29.25	15.08	2.57	27.27	15.15	2.86
	75	62	30.0	19.6	1.72	28.8	20.0	1.89	27.5	19.5	2.08	26.2	19.2	2.30	24.75	19.13	2.55	23.14	18.98	2.84
1125	80	62	31.1	27.3	1.77	29.9	27.5	1.94	13.6	390.8	2.13	11.9	330.3	2.35	26.53	25.63	2.60	25.04	24.94	2.90
	80	67	33.3	20.6	1.76	31.9	20.8	1.94	30.4	20.3	2.13	28.9	20.2	2.35	27.31	20.00	2.61	25.57	20.04	2.90
	80	72	36.2	15.9	1.76	34.6	16.2	1.93	32.9	15.8	2.13	31.1	15.8	2.35	29.42	15.68	2.61	27.57	15.81	2.91
	75	62	30.6	20.9	1.76	29.3	21.0	1.93	27.9	20.5	2.13	26.5	20.3	2.34	25.07	20.10	2.60	23.57	21.38	2.89

ES6BF-036K C7B(A,H)M03642(C,U)-B + TXV

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	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.	T.C.	S.C.	K.W.
1050	80	62	35.8	28.0	2.01	34.5	27.8	2.23	33.0	27.9	2.46	31.5	27.4	2.73	29.79	28.60	3.04	28.05	26.93	3.37
	80	67	39.1	23.2	2.02	37.5	23.0	2.24	35.9	23.2	2.48	34.1	22.8	2.76	32.35	22.40	3.05	30.45	20.88	3.39
	80	72	43.0	18.0	2.05	41.3	17.9	2.27	39.4	18.3	2.52	37.4	17.9	2.78	35.19	17.65	3.07	33.06	18.04	3.41
	75	62	35.6	23.5	2.01	34.3	23.3	2.23	32.8	23.4	2.46	31.2	22.9	2.72	29.50	21.14	3.04	27.75	22.64	3.37
1200	80	62	36.7	30.0	2.07	35.2	30.5	2.29	33.7	29.8	2.52	32.1	29.3	2.79	30.40	29.00	3.10	28.72	28.48	3.43
	80	67	39.9	24.6	2.08	38.3	25.3	2.31	36.6	24.7	2.55	34.7	24.3	2.82	32.87	24.34	3.11	30.90	24.31	3.45
	80	72	43.7	19.0	2.11	41.7	19.8	2.33	39.6	19.2	2.58	37.7	19.0	2.84	35.67	19.07	3.14	33.53	19.14	3.47
	75	62	36.3	24.9	2.07	34.9	25.5	2.29	33.4	24.8	2.52	31.7	24.5	2.79	29.95	24.26	3.09	28.16	24.14	3.43
1350	80	62	37.3	32.1	2.12	35.8	32.2	2.35	34.3	31.3	2.58	32.7	30.8	2.86	31.09	30.04	3.16	29.49	29.37	3.50
	80	67	40.5	26.4	2.14	38.9	26.7	2.36	37.0	26.0	2.61	35.2	25.9	2.88	33.26	25.67	3.17	31.27	25.75	3.51
	80	72	44.0	20.3	2.16	42.1	20.6	2.39	40.2	20.0	2.64	38.2	20.0	2.90	36.07	19.84	3.20	33.85	20.03	3.53
	75	62	36.9	26.6	2.12	35.4	26.8	2.34	33.9	26.0	2.58	32.1	25.8	2.85	30.33	25.54	3.15	28.47	25.50	3.49

EXPANDED COOLING PERFORMANCE - AIR HANDLER

ES6BF-024K B6EMMX24K-B

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	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.	T.C.	S.C.	K.W.
700	80	62	24.4	19.1	1.27	23.6	19.0	1.43	22.6	19.2	1.61	21.6	18.9	1.80	20.52	19.91	2.03	19.40	18.82	2.28
	80	67	26.6	15.3	1.27	25.6	15.2	1.44	24.5	15.4	1.62	23.4	15.1	1.82	22.23	14.92	2.04	20.94	14.02	2.29
	80	72	29.2	11.9	1.28	28.1	11.8	1.45	27.0	12.1	1.64	25.7	11.9	1.84	24.37	11.71	2.06	22.87	12.01	2.33
	75	62	24.2	15.5	1.27	23.3	15.4	1.43	22.4	15.5	1.61	21.4	15.2	1.80	20.28	14.13	2.02	19.09	15.16	2.27
800	80	62	25.1	20.6	1.28	24.2	21.1	1.45	23.2	20.7	1.63	22.2	20.5	1.82	21.21	20.40	2.05	20.25	20.08	2.30
	80	67	27.3	16.3	1.29	26.2	16.8	1.46	25.1	16.4	1.64	23.9	16.2	1.84	22.70	16.27	2.06	21.35	16.29	2.31
	80	72	29.9	12.5	1.30	28.8	13.1	1.47	27.5	12.7	1.66	26.2	12.7	1.86	24.80	12.77	2.08	23.22	12.86	2.35
	75	62	24.8	16.5	1.28	23.9	16.9	1.45	22.9	16.5	1.63	21.8	16.4	1.82	20.70	16.33	2.04	19.55	16.81	2.29
900	80	62	25.7	22.4	1.30	24.8	22.6	1.47	23.8	22.1	1.65	23.0	21.8	1.84	22.00	21.26	2.07	20.89	20.80	2.32
	80	67	27.8	17.5	1.30	26.7	17.7	1.48	25.6	17.3	1.66	24.3	17.3	1.85	23.06	17.21	2.07	21.67	17.31	2.33
	80	72	30.5	13.4	1.31	29.2	13.7	1.49	27.9	13.4	1.68	26.6	13.4	1.87	25.04	13.40	2.10	23.48	13.56	2.37
	75	62	25.4	17.7	1.30	24.4	17.9	1.47	23.4	17.5	1.64	22.2	17.4	1.84	21.10	17.88	2.06	19.87	17.95	2.31

ES6BF-030K B6EMMX30K-B

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	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.	T.C.	S.C.	K.W.
875	80	62	29.5	23.3	1.68	28.4	23.2	1.86	27.4	23.3	2.05	26.2	23.0	2.27	24.95	24.21	2.52	23.60	22.90	2.80
	80	67	32.1	18.7	1.69	30.9	18.6	1.86	29.7	18.8	2.05	28.4	18.5	2.27	27.06	18.27	2.52	25.54	17.12	2.82
	80	72	35.5	14.5	1.68	34.1	14.5	1.86	32.8	14.9	2.05	31.4	14.6	2.27	29.82	14.45	2.53	27.93	14.81	2.86
	75	62	29.2	18.9	1.68	28.1	18.8	1.86	27.1	18.9	2.05	25.9	18.6	2.26	24.61	17.25	2.52	23.20	18.47	2.80
1000	80	62	30.2	25.1	1.73	29.1	25.6	1.90	28.0	25.1	2.09	26.8	24.9	2.31	25.74	24.78	2.57	24.56	24.35	2.86
	80	67	32.8	19.9	1.73	31.6	20.5	1.90	30.3	20.0	2.10	29.0	19.8	2.32	27.56	19.85	2.57	25.97	19.85	2.87
	80	72	36.2	15.3	1.73	34.8	16.1	1.90	33.3	15.6	2.10	31.8	15.6	2.32	29.96	15.73	2.58	28.02	15.75	2.91
	75	62	29.9	20.1	1.73	28.8	20.6	1.90	27.6	20.1	2.09	26.4	19.9	2.31	25.06	19.85	2.56	23.60	19.78	2.85
1125	80	62	30.9	27.1	1.77	29.8	27.3	1.95	28.8	26.7	2.14	27.8	26.4	2.36	26.60	25.70	2.61	25.27	25.16	2.91
	80	67	33.4	21.3	1.78	32.1	21.6	1.95	30.8	21.1	2.14	29.4	21.0	2.36	27.94	20.92	2.62	26.28	21.01	2.92
	80	72	36.6	16.4	1.77	35.0	16.8	1.95	33.5	16.4	2.15	32.0	16.4	2.37	30.33	16.35	2.63	28.38	16.48	2.96
	75	62	30.4	21.5	1.78	29.3	21.7	1.95	28.1	21.2	2.14	26.8	21.1	2.36	25.44	20.93	2.61	23.99	21.61	2.90

ES6BF-036K B6EMMX36K-B

O.D.T			65°F			75°F			85°F			95°F			105°F			115°F		
CFM	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.	T.C.	S.C.	K.W.
1050	80	62	35.6	28.2	1.79	34.3	28.0	2.01	32.8	28.2	2.25	31.3	27.6	2.51	29.73	28.82	2.81	28.00	27.15	3.15
	80	67	38.9	23.3	1.80	37.3	23.2	2.03	35.7	23.4	2.27	34.0	23.0	2.53	32.20	22.62	2.83	30.28	21.18	3.17
	80	72	42.7	18.0	1.83	41.0	17.9	2.05	39.2	18.3	2.29	37.2	18.0	2.56	35.05	17.72	2.85	32.92	18.12	3.20
	75	62	35.4	23.6	1.79	34.0	23.4	2.01	32.6	23.6	2.25	31.0	23.1	2.51	29.35	21.30	2.81	27.60	22.82	3.15
1200	80	62	36.5	30.3	1.82	35.1	30.8	2.04	33.7	30.1	2.28	32.1	29.6	2.54	30.48	29.24	2.84	28.85	28.61	3.19
	80	67	39.7	24.8	1.83	38.2	25.5	2.06	36.5	24.9	2.30	34.7	24.7	2.56	32.79	24.67	2.86	30.80	24.66	3.20
	80	72	43.4	19.0	1.86	41.5	19.9	2.08	39.6	19.3	2.32	37.7	19.1	2.59	35.63	19.22	2.88	33.47	19.30	3.22
	75	62	36.2	25.2	1.82	34.8	25.7	2.04	33.2	25.0	2.28	31.6	24.7	2.54	29.90	24.62	2.84	28.10	24.51	3.18
1350	80	62	37.3	32.4	1.85	35.9	32.5	2.07	34.4	31.6	2.31	32.8	31.1	2.57	31.31	30.25	2.87	29.68	29.56	3.22
	80	67	40.4	26.7	1.86	38.7	27.0	2.09	37.0	26.4	2.33	35.2	26.3	2.59	33.26	25.99	2.89	31.22	26.10	3.23
	80	72	43.9	20.4	1.89	42.1	20.8	2.11	40.2	20.2	2.35	38.2	20.2	2.62	36.11	20.07	2.91	33.88	20.29	3.25
	75	62	36.8	26.9	1.84	35.4	27.1	2.07	33.8	26.4	2.30	32.1	26.3	2.57	30.36	26.01	2.87	28.52	25.98	3.21



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.

NORDYNE

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