

TECHNICAL SPECIFICATIONS

WSA2BD 13 SEER

3 Phase Light Commercial Air Conditioners

3, 4, 5 Ton Capacities

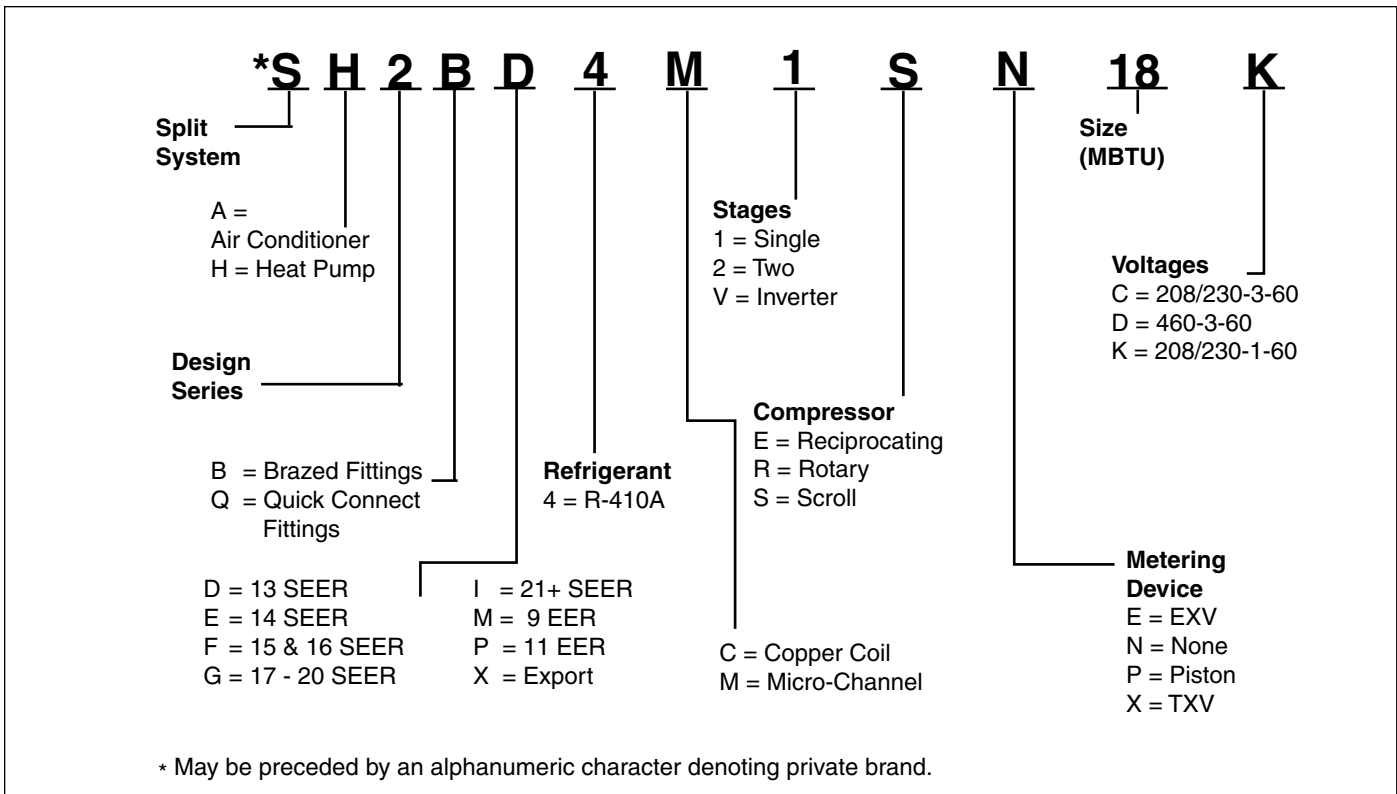
The WSA2BD Series of air conditioners, when combined with our engineered coils or air handlers, offers a full line of quality, split system cooling equipment. Units are ideally sized for slab or rooftop mounting in light commercial applications.



FEATURES and BENEFITS

- **Quality Compressor:** State-of-the-art Copeland Scroll™ compressor is standard equipment.
- **Full Service Valves:** These brass valves are easily accessible and simplify servicing of the refrigeration system.
- **Designed Using Galvanized Steel:** With a polyester urethane coat finish, it passes 950 hours of salt spray per ASTM Std. B117.
- **Composite Base Pan:** Absorbs sound and is corrosion resistant. Composite is also stronger and lighter than steel.
- **Permanently Lubricated Motor:** A heavy duty PSC motor for long lasting reliability and quiet operation. Requires no maintenance and is completely protected from rain and snow.
- **Removable Top Grille Assembly:** Allows ease of service from the top without disconnecting fan motor leads.
- **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.
- **All-Aluminum coils:** Aluminum coils in all models which provides high corrosion resistance.
- **Powder Coated Wire Guard and Mesh Hail Guard:** Will never rust and protects the coil from being damaged by balls, lawnmowers, hail, etc.

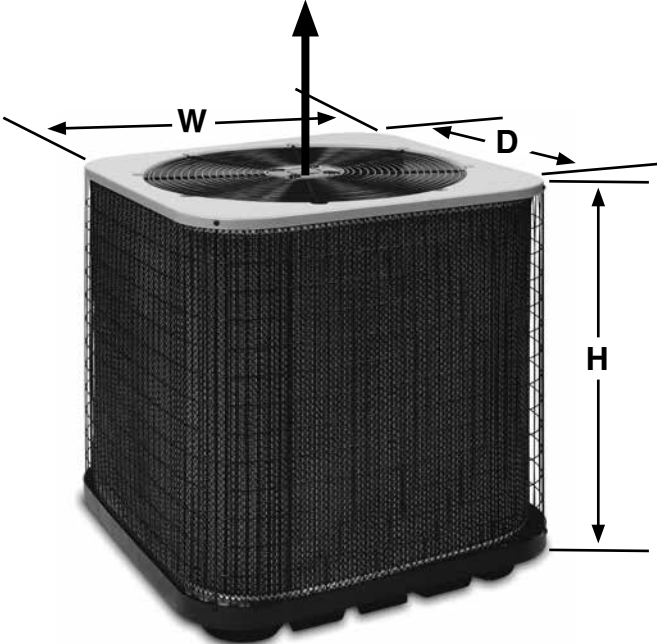
MODEL IDENTIFICATION CODES



**DIMENSIONS
OUTDOOR SECTION**

WSA2BD	36	48	60
H	28 1/2	29 1/4	33 1/4
W	23 3/4	31 3/4	31 3/4
D	23 3/4	31 3/4	31 3/4

Air Discharge
Allow Adequate Clearance for Airflow



PHYSICAL AND ELECTRICAL SPECIFICATIONS / OUTDOOR UNITS

13 SEER — High Efficiency — Three Phase

Model Number WSA2BD		036CB	048CB	060CB	036DB	048DB	060DB	
Electrical Data	Volts-Cycles-Phase (1)	208/230-60-3			460-60-3			
	Total Amps	11.8	15.2	17.4	6.5	6.9	8.4	
	Delay Fuse Max. (2)	20	30	35	15	15	15	
	Min. Circuit Ampacity	14.4	18.6	21.4	7.9	8.5	10.4	
	Fan Motor	HP	0.25	0.25	0.25	0.25	0.25	
	Fan Blade	SCFM	3000	3500	3800	3000	3500	3800
Refrigerant suction line O.D. NOTE: Liquid line is 3/8" O.D. for entire length.		0-24 ft.	3/4"	7/8"	7/8"	3/4"	7/8"	7/8"
		25-39 ft.	7/8" (3)	7/8"	1-1/8" (4)	7/8" (3)	7/8"	1-1/8" (4)
		40-75 ft.	7/8" (3)	7/8"	1-1/8" (4)	7/8" (3)	7/8"	1-1/8" (4)
Refrigerant charge R-410A in ounces for outdoor unit & 15' lineset		65.6	80.0	80.0	65.6	80.0	80.0	
Approximate Weight (lbs.)		Net	109	160	162	109	160	162
		Ship	115	169	171	115	169	171
Sound Rating db		76	79	79	76	79	79	

(1) Operating Voltage Range: 208/230 volts 187 V minimum - 253 V maximum
460 volts 414 V minimum - 506 V maximum

(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 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.

COPPER WIRE SIZE — AWG (1% Voltage Drop)				
Supply Wire Length-Feet				Supply Circuit
200	150	100	50	Ampacity
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
2	3	4	6	55
1	2	3	4	60

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

ACCESSORIES

Low Ambient	918837
Fan Delay Kit	918476
Low Pressure Switch	913551
High Wind Kit	920900

SYSTEM COOLING CAPACITIES
13 SEER — High Efficiency — Three Phase

WSA2BD	Evaporator Coil	Cooling BTUH	SEER	EER	Nominal CFM
036(C,D)	C7B(A,H)M03036(C,U)-B	36,000	13.00	11.00	1,150
048(C,D)	C7B(A,H)M03648(C,U)-C	47,000	13.00	11.00	1,360
060(C,D)	C7B(A,H)M060(C,U)-(C,D)	55,000	13.00	11.00	1,420
060(C,D)	C6B(A,H)X060(C,U)-(C,D)	55,000	13.00	11.00	1,420

Outdoor Unit WSA2BD	Indoor Unit	Cooling BTUH	SEER	EER	Nominal CFM
036(C,D)	B6BMM036K-B	35,800	13.00	11.00	1,210
048(C,D)	B6BMM048K-C	48,000	13.00	11.00	1,625
060(C,D)	B6BMM060K-C	57,000	13.50	11.00	1,595

See current AHRI Directory for certified combinations and ratings. All ratings are with time delay relay.
www.ahridirectory.org

COOLING EXPANDED RATINGS

WSA2BD-036(C,D) C7B(A,H)M03642(C,U)-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	38.0	29.5	2.38	36.4	29.2	2.62	34.6	29.2	2.88	32.8	28.6	3.17	30.84	29.86	3.50	28.81	27.89	3.85
	80	67	41.9	24.6	2.46	40.2	24.4	2.69	38.3	24.6	2.96	36.4	24.1	3.24	34.29	23.65	3.58	32.04	21.47	3.93
	80	72	46.4	19.1	2.56	44.6	19.0	2.79	42.6	19.4	3.06	40.5	19.0	3.36	38.26	18.65	3.68	35.88	19.09	4.05
	75	62	38.6	23.7	2.39	36.9	23.5	2.63	35.2	23.6	2.89	33.3	23.0	3.18	31.25	20.97	3.50	29.08	22.63	3.86
1200	80	62	39.0	31.7	2.46	37.3	32.2	2.69	35.6	31.4	2.96	33.7	30.8	3.25	31.78	30.39	3.57	29.88	29.62	3.94
	80	67	43.0	26.2	2.54	41.2	26.9	2.77	39.2	26.2	3.03	37.2	25.9	3.32	35.03	25.89	3.65	32.68	25.69	4.01
	80	72	47.5	20.1	2.64	45.6	21.1	2.88	43.5	20.4	3.14	41.3	20.2	3.44	38.96	20.37	3.77	36.49	20.48	4.13
	75	62	39.5	25.3	2.47	37.8	25.9	2.70	36.0	25.1	2.96	34.1	24.8	3.25	31.95	24.50	3.58	29.69	24.29	3.93
1350	80	62	39.9	34.1	2.53	38.2	34.1	2.77	36.4	33.2	3.03	34.6	32.6	3.32	32.76	31.65	3.65	30.94	30.81	4.02
	80	67	43.7	28.2	2.61	41.9	28.5	2.85	39.9	27.8	3.11	37.8	27.7	3.40	35.58	27.32	3.73	33.19	27.36	4.08
	80	72	48.3	21.6	2.73	46.3	22.1	2.96	44.2	21.4	3.23	41.9	21.5	3.52	39.45	21.39	3.85	36.89	21.64	4.21
	75	62	40.3	27.2	2.54	38.5	27.4	2.77	36.6	26.6	3.03	34.6	26.3	3.32	32.48	25.93	3.65	30.18	25.83	4.00

WSA2BD-048(C,D) C7B(A,H)M03648(C,U)-C

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.
1400	80	62	49.0	37.4	3.14	46.7	36.9	3.44	44.3	36.9	3.79	41.7	36.0	4.17	38.72	37.39	4.60	35.91	34.67	5.07
	80	67	54.3	31.2	3.21	51.9	30.9	3.52	49.4	31.1	3.86	46.7	30.4	4.24	43.70	29.78	4.68	40.41	26.57	5.15
	80	72	60.2	24.5	3.30	57.7	24.3	3.61	55.0	24.7	3.95	52.1	24.1	4.34	49.00	23.64	4.77	45.57	24.08	5.25
	75	62	49.9	30.2	3.15	47.6	29.8	3.46	45.2	29.9	3.80	42.6	29.1	4.18	39.51	25.92	4.61	36.24	28.16	5.08
1600	80	62	50.3	40.0	3.23	48.0	40.6	3.54	45.5	39.5	3.88	42.9	38.7	4.26	39.97	37.96	4.69	36.77	36.46	5.16
	80	67	55.6	33.2	3.31	53.2	34.1	3.61	50.6	33.2	3.96	47.8	32.7	4.34	44.68	32.55	4.77	41.37	32.30	5.24
	80	72	61.6	25.7	3.41	59.0	26.9	3.71	56.2	26.0	4.05	53.2	25.7	4.44	49.85	25.76	4.87	46.31	25.76	5.34
	75	62	51.2	32.1	3.24	48.8	32.8	3.55	46.3	31.8	3.90	43.6	31.2	4.27	40.61	30.89	4.70	36.76	30.21	5.16
1800	80	62	51.4	42.9	3.32	49.0	43.0	3.63	46.5	41.7	3.98	43.9	41.0	4.35	41.12	39.73	4.79	38.51	38.35	5.27
	80	67	56.7	35.7	3.40	54.2	36.1	3.71	51.5	35.1	4.05	48.6	34.9	4.43	45.45	34.47	4.86	42.03	34.39	5.33
	80	72	62.7	27.5	3.50	60.0	28.1	3.81	57.1	27.2	4.15	53.9	27.2	4.54	50.58	26.98	4.96	47.04	27.17	5.44
	75	62	52.3	34.4	3.33	49.8	34.6	3.64	47.2	33.5	3.98	44.4	33.2	4.36	41.32	32.67	4.79	37.67	31.98	5.25

WSA2BD-060(C,D) C6B(A,H)-X60(C,U)-C

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.
1750	80	62	60.5	49.9	3.70	58.0	49.5	4.06	55.4	49.6	4.47	52.8	48.7	4.93	50.12	49.28	5.47	47.51	46.71	6.06
	80	67	65.3	40.6	3.77	62.4	40.3	4.13	59.5	40.7	4.53	56.5	39.9	5.00	53.37	39.33	5.53	50.13	37.69	6.11
	80	72	71.2	30.7	3.84	68.0	30.5	4.21	65.0	31.1	4.64	61.6	30.4	5.10	58.20	29.99	5.61	54.62	30.72	6.20
	75	62	61.0	39.5	3.71	58.3	39.1	4.07	55.6	39.3	4.47	52.8	38.5	4.93	49.87	35.51	5.46	46.79	38.13	6.04
2000	80	62	61.9	53.9	3.82	59.3	54.7	4.18	56.8	53.0	4.59	54.4	51.4	5.06	51.76	50.01	5.60	48.98	48.57	6.18
	80	67	66.3	43.6	3.87	63.4	44.7	4.24	60.4	43.6	4.65	57.3	43.1	5.12	54.09	43.08	5.64	50.77	43.00	6.22
	80	72	72.3	32.5	3.96	69.1	33.9	4.34	65.8	32.9	4.75	62.4	32.6	5.21	58.81	32.86	5.72	55.11	33.06	6.31
	75	62	62.0	42.2	3.82	59.3	43.1	4.18	56.5	42.0	4.58	53.6	41.4	5.04	50.60	41.30	5.57	47.44	41.11	6.15
2250	80	62	63.3	57.6	3.93	60.9	56.8	4.30	58.4	54.5	4.71	55.8	53.0	5.19	53.07	51.27	5.72	50.15	49.93	6.30
	80	67	67.2	47.1	3.98	64.2	47.5	4.35	61.1	46.4	4.77	57.9	46.2	5.23	54.68	45.81	5.75	51.28	45.93	6.32
	80	72	73.0	35.1	4.05	69.8	35.8	4.46	66.3	34.8	4.86	62.8	34.8	5.31	59.05	34.67	5.83	55.24	35.08	6.41
	75	62	62.9	45.4	3.92	60.1	45.7	4.28	57.2	44.5	4.69	54.2	44.3	5.16	51.13	43.80	5.68	47.90	43.77	6.26

WSA2BD-036(C,D) B6BMM036K-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	40.4	24.0	2.38	38.7	23.8	2.61	36.9	24.0	2.87	35.0	23.5	3.16	33.00	24.87	3.49	30.83	23.24	3.84
	80	67	40.4	24.0	2.38	38.7	23.8	2.61	36.9	24.0	2.87	35.0	23.5	3.16	33.00	23.12	3.49	30.83	23.24	3.84
	80	72	44.8	18.7	2.46	43.0	18.6	2.70	41.1	18.9	2.96	39.0	18.5	3.26	36.86	18.23	3.59	34.54	18.66	3.94
	75	62	36.4	24.2	2.32	34.8	23.8	2.55	33.1	23.9	2.81	31.3	23.3	3.10	29.42	21.16	3.41	27.28	22.82	3.76
1200	80	62	41.4	25.7	2.45	39.6	26.3	2.68	37.7	25.7	2.94	35.8	25.2	3.23	33.68	25.18	3.56	31.44	25.08	3.91
	80	67	41.4	25.7	2.45	39.6	26.3	2.68	37.7	25.7	2.94	35.8	25.2	3.23	33.68	25.18	3.56	31.44	25.08	3.91
	80	72	45.8	19.7	2.54	43.9	20.6	2.77	41.9	20.0	3.04	39.7	19.8	3.33	37.43	19.91	3.65	35.01	20.00	4.01
	75	62	37.3	25.7	2.38	35.6	26.2	2.62	33.9	25.5	2.87	32.0	25.1	3.16	30.07	24.88	3.48	27.97	24.62	3.83
1350	80	62	42.1	27.6	2.51	40.3	27.8	2.75	38.4	27.1	3.01	36.4	26.9	3.30	34.23	26.67	3.63	31.96	26.70	3.98
	80	67	42.1	27.6	2.51	40.3	27.8	2.75	38.4	27.1	3.01	36.4	26.9	3.30	34.23	26.67	3.63	31.96	26.70	3.98
	80	72	46.5	21.2	2.61	44.5	21.6	2.84	42.4	21.0	3.11	40.2	21.0	3.40	37.91	20.88	3.72	35.44	21.09	4.08
	75	62	38.0	27.6	2.44	36.3	27.7	2.68	34.5	27.0	2.94	32.6	26.7	3.22	30.61	26.33	3.54	28.49	26.16	3.90

WSA2BD-048(C,D) B6BMM048K-C

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.
1400	80	62	49.4	37.4	3.09	47.1	36.9	3.39	44.8	36.9	3.72	42.2	35.9	4.09	39.24	37.25	4.50	36.57	34.71	4.96
	80	67	54.3	31.4	3.16	52.0	31.0	3.45	49.5	31.2	3.78	46.9	30.4	4.15	44.03	29.75	4.57	40.77	26.69	5.01
	80	72	60.5	24.8	3.25	58.0	24.7	3.54	55.3	25.1	3.86	52.2	24.5	4.23	48.49	23.98	4.63	45.16	24.29	5.10
	75	62	49.0	31.5	3.09	46.8	31.1	3.38	44.5	31.1	3.72	41.8	30.2	4.08	38.74	27.23	4.49	36.15	29.22	4.96
1600	80	62	50.7	39.9	3.19	48.4	40.5	3.49	46.0	39.4	3.82	43.4	38.6	4.19	40.56	37.97	4.60	37.38	36.74	5.05
	80	67	55.7	33.3	3.26	53.3	34.1	3.55	50.8	33.1	3.88	48.0	32.6	4.25	45.07	32.38	4.67	41.81	32.01	5.12
	80	72	61.6	26.1	3.35	58.6	27.3	3.63	55.5	26.3	3.95	52.7	26.0	4.32	49.57	25.92	4.74	46.15	25.79	5.20
	75	62	50.3	33.5	3.19	48.0	34.1	3.48	45.6	33.0	3.81	42.9	32.3	4.18	39.87	31.82	4.59	36.68	31.02	5.04
1800	80	62	51.8	42.8	3.29	49.4	42.8	3.59	47.0	41.6	3.92	44.4	40.9	4.29	41.61	39.78	4.70	38.70	38.53	5.16
	80	67	56.8	35.6	3.37	54.3	35.9	3.65	51.7	34.9	3.98	48.9	34.6	4.35	45.86	34.13	4.76	42.49	33.94	5.22
	80	72	61.9	27.9	3.44	59.4	28.4	3.73	56.6	27.4	4.06	53.6	27.3	4.43	50.41	26.97	4.84	46.87	27.01	5.30
	75	62	51.3	35.8	3.29	48.9	35.9	3.58	46.5	34.8	3.91	43.8	34.4	4.28	40.75	33.41	4.69	37.07	32.70	5.13

WSA2BD-060(C,D) B6BMM060K-C

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.
1750	80	62	61.5	47.2	3.56	58.7	46.3	3.91	55.7	46.3	4.31	52.2	45.1	4.75	48.53	46.79	5.26	45.46	43.83	5.84
	80	67	67.7	39.1	3.67	64.7	38.7	4.03	61.5	38.9	4.43	58.2	38.0	4.89	54.53	37.26	5.40	50.45	33.72	5.95
	80	72	74.7	30.5	3.82	71.4	30.3	4.20	68.1	30.8	4.60	64.5	30.1	5.05	60.63	29.56	5.57	56.42	30.17	6.13
	75	62	61.3	39.5	3.55	58.5	39.0	3.91	55.5	39.0	4.30	52.0	37.9	4.75	48.33	34.46	5.25	45.16	37.06	5.83
2000	80	62	63.2	50.2	3.64	60.3	51.0	4.00	57.2	49.6	4.39	53.8	48.6	4.85	50.04	47.63	5.35	46.61	46.21	5.91
	80	67	69.5	41.6	3.76	66.4	42.7	4.12	63.1	41.5	4.53	59.6	40.9	4.98	55.84	40.73	5.49	51.78	40.45	6.05
	80	72	76.4	32.1	3.92	73.1	33.6	4.29	69.5	32.5	4.70	65.6	32.1	5.14	61.60	32.24	5.65	57.39	32.25	6.22
	75	62	63.0	42.0	3.64	60.0	42.9	3.99	57.0	41.6	4.39	53.3	40.8	4.83	49.42	40.21	5.33	45.82	39.50	5.90
2250	80	62	64.6	54.0	3.72	61.6	54.0	4.08	58.4	52.5	4.47	55.2	51.5	4.93	51.66	49.92	5.44	48.32	48.11	6.01
	80	67	70.9	44.7	3.85	67.6	45.1	4.20	64.3	43.9	4.62	60.6	43.6	5.06	56.78	43.14	5.57	52.71	43.10	6.13
	80	72	77.6	34.5	4.00	74.1	35.2	4.38	70.3	34.0	4.78	66.6	34.0	5.23	62.56	33.71	5.74	58.35	33.98	6.31
	75	62	64.3	45.1	3.72	61.3	45.3	4.08	58.1	44.0	4.47	54.5	43.5	4.92	50.57	42.34	5.41	46.41	41.87	5.97



GENERAL TERMS OF LIMITED WARRANTY

Nortek Global HVAC, LLC will furnish a replacement for any part of this product which fails in normal use and service within the terms and conditions of the warranty.

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

Before purchasing this appliance, read important energy cost and efficiency information available from your retailer. Specifications and illustrations subject to change without notice and without incurring obligations. Printed in U.S.A (04/2019)