

TECHNICAL SPECIFICATIONS

WSA3BD Series

High Efficiency Air Conditioner 13.4 SEER2 Residential System 1-1/2 – 4 Ton Capacity

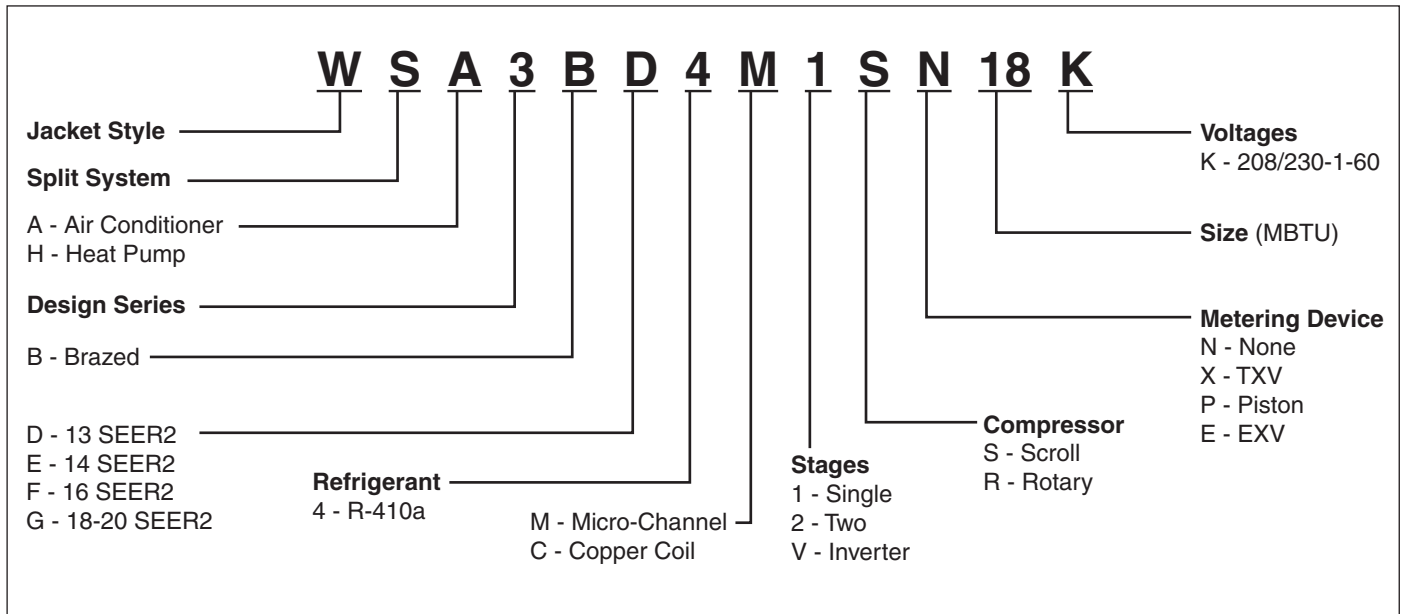
The WSA3BD Series of air conditioners offers exceptional performance. The unit, when combined with our engineered coils or air handlers, offers a full line of quality, split system cooling equipment.



FEATURES and BENEFITS

- **Quality Compressor:** State-of-the-art Copeland Scroll™ compressor is standard equipment.
- **Designed Using Galvanized Steel:** With powder-coated paint and a gloss finish that eliminates sharp edges and reduces scratching.
- **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.
- **Composite Base Pan:** Absorbs sound and is corrosion resistant. Composite is also stronger and lighter than steel.
- **Swept Wing Fan Blade:** Designed to significantly reduce unwanted noise.
- **All-Aluminum Coils:** All aluminum coils in all models which provides high corrosion resistance.
- **Service-Friendly Jacket:** Side panels can be easily removed and replaced without removing the top grill.

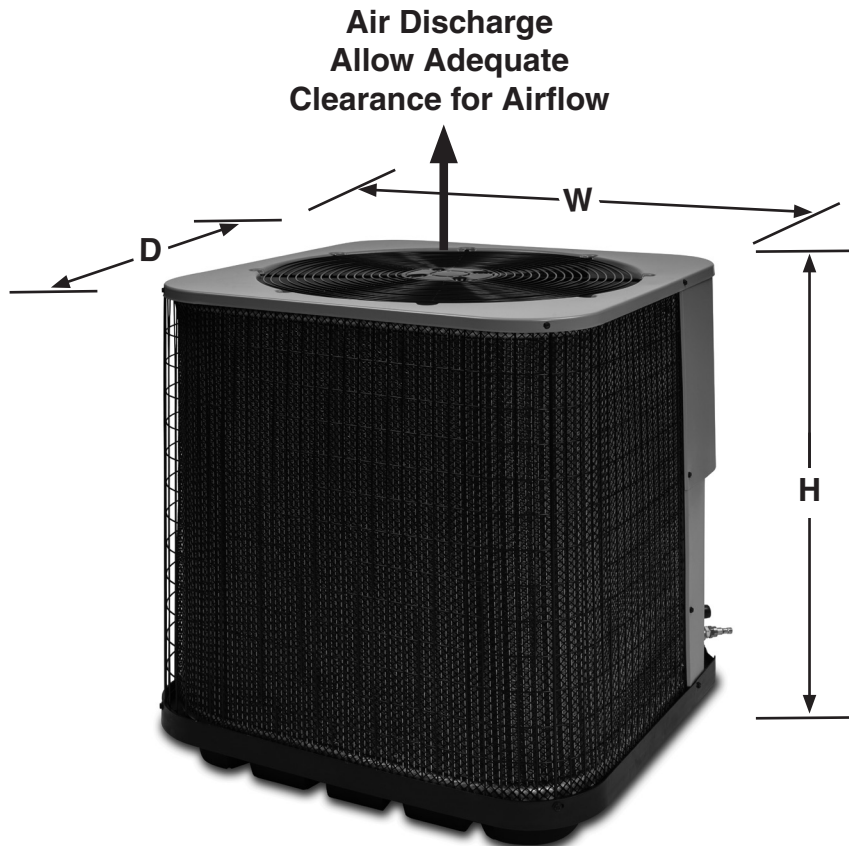
MODEL IDENTIFICATION CODES



DIMENSIONS

AIR CONDITIONER OUTDOOR SECTION

WSA3BD	18K	24K	30K	36K	42K	48K
H	22.7	30.7	27.35	27.35	31.35	35.35
W	23.75	23.75	31.75	31.75	31.75	31.75
D	23.75	23.75	31.75	31.75	31.75	31.75



PHYSICAL AND ELECTRICAL SPECIFICATIONS / OUTDOOR UNITS

13.4 SEER2 — High Efficiency — Single Phase

Model Number WSA3BD4M		1SN18K	1SN24K	1SN30K	1SN36K	1SN42K	1SN48K
Electrical Data	Volts-Cycles-Phase (1)	208/230-60-1					
	Delay Fuse Max. (2)	20	25	30	30	40	50
	Min. Circuit Ampacity	11.6	14.3	17.7	19.1	24.7	32.7
	Comp. Locked Rotor Amp	47.5	62.9	72.5	87.4	110.0	105.3
	Fan Motor HP		1/20	1/10	1/8	1/4	1/4
Refrigerant suction line O.D. NOTE: Liquid line is 3/8" O.D. for entire length.	0-24 ft.	5/8" (3)	3/4"	3/4"	3/4"	7/8"	7/8"
	25-39 ft.	5/8" (3)	3/4"	3/4"	3/4"	7/8"	7/8"
	40-75 ft.	3/4"	3/4"	3/4"	7/8" (4)	7/8"	1-1/8" (5)
Approximate Weight (lbs.)	Ship	121	138	162	166	198	214
Sound Rating dBA		73	73	74	79	79	79

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

(2) HACR Type Circuit Breakers are recommended.

(3) Requires 5/8" to 3/4" reducer from line to unit.

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

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

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 - 1017210

Low Ambient Kit - 918837

Cantilever Kit - 1018671

SYSTEM COOLING CAPACITIES

13.4 SEER2 — High Efficiency — Single Phase

Outdoor Unit	Indoor Unit	BTUH	SEER2	EER2	CFM	DTC
WSA3BD4M1SN18K	C74BHM018C-A	17,200	13.4	11.0	530	DTC
WSA3BD4M1SN24K	C74BHM02430C-A	23,000	13.4	11.0	705	DTC
WSA3BD4M1SN30K	C74BHM02430C-A	28,600	13.4	11.0	875	DTC
WSA3BD4M1SN36K	C74BHM03642C-B	34,200	13.4	11.0	1,050	DTC
WSA3BD4M1SN42K	C74BHM03642C-B	40,500	13.4	11.0	1,225	DTC
WSA3BD4M1SN48K	C74BHM048C-C	46,000	13.4	11.0	1,400	DTC

DTC is Designated test combination

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

COOLING EXPANDED RATINGS WITH COIL

WSA3BD4M1SN18K + C74B(A,H)M018(C,U)-A

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.
525	80	62	18.3	15.3	1.10	17.5	15.1	1.22	16.5	14.6	1.35	15.5	14.4	1.49	14.5	13.9	1.66	13.5	13.3	1.85
	80	67	18.3	11.4	1.10	19.0	12.6	1.22	18.2	12.4	1.35	17.1	12.0	1.50	16.1	11.6	1.66	14.9	11.1	1.85
	80	72	17.7	8.4	1.10	18.8	9.1	1.22	19.9	9.9	1.34	18.9	9.5	1.50	17.7	9.1	1.67	16.5	8.6	1.87
	75	62	18.3	13.2	1.10	17.4	12.8	1.22	16.4	12.4	1.35	15.5	12.0	1.49	14.5	11.5	1.66	13.4	11.1	1.85
	75	67	19.4	10.4	1.10	19.1	10.4	1.22	18.1	10.0	1.35	17.1	9.5	1.50	16.0	9.1	1.66	14.9	8.6	1.85
600	80	62	18.7	16.1	1.13	17.8	16.0	1.25	16.8	15.9	1.38	15.8	15.4	1.53	14.9	14.7	1.69	13.9	13.9	1.88
	80	67	18.3	11.5	1.13	19.5	13.3	1.25	18.6	13.1	1.38	17.5	12.7	1.53	16.3	12.2	1.70	15.1	11.8	1.89
	80	72	17.6	8.3	1.13	18.8	9.1	1.25	20.2	10.3	1.38	19.3	9.9	1.53	18.0	9.5	1.71	16.7	9.0	1.90
	75	62	18.7	13.8	1.13	17.7	13.6	1.25	16.7	13.2	1.38	15.8	12.7	1.53	14.7	12.3	1.69	13.6	11.8	1.88
	75	67	19.6	10.6	1.13	19.4	10.8	1.25	18.4	10.4	1.38	17.4	10.0	1.53	16.3	9.5	1.70	15.1	9.0	1.89
675	80	62	18.9	16.8	1.17	18.1	16.9	1.29	17.1	16.7	1.41	16.1	16.0	1.56	15.3	15.3	1.73	14.3	14.3	1.92
	80	67	18.3	11.5	1.17	19.8	13.9	1.28	18.9	13.8	1.41	17.7	13.4	1.56	16.5	12.9	1.73	15.3	12.5	1.92
	80	72	17.6	8.3	1.17	18.8	9.1	1.29	20.4	10.5	1.41	19.5	10.3	1.57	18.2	9.9	1.74	16.9	9.4	1.94
	75	62	19.0	14.5	1.17	18.0	14.3	1.29	17.0	13.9	1.42	16.0	13.4	1.56	14.9	12.9	1.73	13.8	12.4	1.92
	75	67	19.7	10.7	1.16	19.7	11.2	1.28	18.7	10.8	1.41	17.6	10.3	1.56	16.5	9.9	1.73	15.2	9.4	1.92

WSA3BD4M1SN24K + C74B(A,H)M024(C,U)-A

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	23.6	19.0	1.44	23.3	19.6	1.60	22.3	19.2	1.76	21.1	18.9	1.95	19.8	18.4	2.16	18.5	17.7	2.40
	80	67	23.2	14.2	1.44	25.2	16.2	1.59	24.4	16.1	1.76	23.1	15.7	1.95	21.7	15.1	2.17	20.2	14.5	2.41
	80	72	23.4	11.0	1.45	22.6	10.7	1.59	26.1	12.7	1.75	25.2	12.4	1.95	23.7	11.8	2.17	22.0	11.2	2.41
	75	62	24.2	17.0	1.45	23.3	16.7	1.60	22.2	16.4	1.76	21.0	15.8	1.95	19.8	15.2	2.16	18.4	14.6	2.40
	75	67	24.3	12.7	1.45	25.4	13.5	1.59	24.3	13.1	1.76	23.0	12.6	1.95	21.6	12.0	2.17	20.2	11.4	2.41
800	80	62	24.0	19.7	1.49	23.8	20.8	1.64	22.7	20.7	1.81	21.5	20.2	1.99	20.1	19.5	2.21	18.8	18.8	2.45
	80	67	23.2	14.1	1.49	25.6	16.9	1.64	24.9	17.0	1.80	23.5	16.6	2.00	22.0	16.0	2.21	20.5	15.4	2.45
	80	72	23.2	10.9	1.49	22.5	10.6	1.63	26.4	13.0	1.80	25.6	12.8	2.00	24.0	12.3	2.22	22.3	11.7	2.46
	75	62	24.6	17.8	1.49	23.8	17.5	1.64	22.6	17.2	1.81	21.4	16.7	1.99	20.1	16.1	2.21	18.7	15.4	2.45
	75	67	24.3	12.8	1.49	25.9	14.0	1.64	24.8	13.6	1.81	23.4	13.1	2.00	22.0	12.4	2.21	20.4	11.8	2.45
900	80	62	24.2	20.3	1.53	24.2	21.9	1.68	23.1	21.8	1.85	21.7	21.2	2.04	20.5	20.5	2.25	19.3	19.3	2.50
	80	67	23.1	14.1	1.53	25.9	17.4	1.68	25.2	17.7	1.85	23.8	17.4	2.04	22.2	16.8	2.26	20.7	16.2	2.50
	80	72	23.2	10.9	1.53	22.4	10.5	1.68	26.6	13.3	1.84	25.9	13.3	2.04	24.3	12.8	2.26	22.5	12.1	2.50
	75	62	25.0	18.5	1.54	24.1	18.4	1.69	23.0	18.1	1.85	21.7	17.5	2.04	20.3	16.8	2.25	18.9	16.1	2.49
	75	67	24.2	12.7	1.53	26.3	14.5	1.68	25.1	14.0	1.85	23.7	13.4	2.04	22.2	12.9	2.26	20.6	12.3	2.50

WSA3BD4M1SN30K + C74B(A,H)M030(C,U)-A

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	29.7	24.3	1.80	28.6	24.4	1.98	27.0	23.8	2.17	25.3	23.3	2.38	23.7	22.5	2.61	22.0	21.5	2.88
	80	67	29.1	17.8	1.80	31.4	20.4	1.99	29.9	20.0	2.18	28.1	19.4	2.40	26.2	18.6	2.63	24.1	17.7	2.89
	80	72	29.2	13.8	1.80	30.3	14.5	1.98	32.7	15.9	2.19	31.2	15.5	2.41	29.2	14.7	2.66	27.1	13.9	2.93
	75	62	29.8	21.2	1.81	28.5	20.6	1.98	26.8	20.1	2.17	25.2	19.3	2.38	23.6	18.6	2.61	21.9	17.8	2.88
	75	67	31.3	16.6	1.81	31.3	16.8	1.99	29.8	16.2	2.19	28.0	15.5	2.40	26.1	14.7	2.63	24.1	13.8	2.89
1000	80	62	30.3	25.7	1.86	29.2	25.8	2.04	27.5	25.5	2.23	25.7	24.7	2.43	24.1	23.7	2.67	22.6	22.6	2.94
	80	67	29.1	17.9	1.85	32.0	21.3	2.05	30.5	21.0	2.24	28.6	20.4	2.46	26.6	19.6	2.69	24.4	18.8	2.95
	80	72	28.9	13.6	1.85	30.3	14.4	2.04	33.1	16.5	2.25	31.7	16.0	2.47	29.6	15.3	2.72	27.4	14.6	2.99
	75	62	30.5	22.3	1.87	29.0	21.7	2.04	27.3	21.2	2.23	25.6	20.4	2.43	24.0	19.6	2.67	22.2	18.8	2.94
	75	67	31.6	16.8	1.87	31.9	17.4	2.05	30.4	16.8	2.24	28.5	16.1	2.46	26.5	15.2	2.69	24.3	14.4	2.95
1125	80	62	30.8	27.0	1.92	29.7	27.2	2.09	27.9	26.9	2.28	26.1	25.8	2.49	24.7	24.7	2.73	23.2	23.2	3.00
	80	67	29.0	17.8	1.91	32.4	22.2	2.10	30.9	22.0	2.30	28.9	21.5	2.51	26.8	20.7	2.75	24.6	19.8	3.01
	80	72	28.9	13.6	1.91	30.2	14.4	2.09	33.4	16.8	2.31	32.1	16.6	2.53	30.0	15.9	2.77	27.6	15.0	3.05
	75	62	31.1	23.2	1.92	29.5	22.6	2.10	27.7	22.2	2.29	25.9	21.4	2.49	24.2	20.6	2.73	22.4	19.8	2.99
	75	67	31.7	16.9	1.92	32.5	18.0	2.11	30.8	17.3	2.30	28.8	16.6	2.51	26.8	15.8	2.75	24.5	15.0	3.01

COOLING EXPANDED RATINGS WITH COIL (CONTINUED)

WSA3BD4M1SN36K + C74B(A,H)M036(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	36.0	29.9	2.14	34.3	29.8	2.36	32.3	28.9	2.59	30.2	28.3	2.82	28.1	27.3	3.07	26.1	26.1	3.36
	80	67	36.8	23.0	2.15	37.7	24.9	2.37	35.7	24.1	2.60	33.5	23.5	2.85	31.3	22.6	3.11	28.9	21.5	3.40
	80	72	34.5	16.2	2.16	37.8	18.1	2.37	39.3	19.3	2.61	37.1	18.5	2.86	34.6	17.6	3.14	32.0	16.7	3.44
	75	62	35.8	25.7	2.14	34.0	25.2	2.37	32.0	24.3	2.59	30.1	23.4	2.82	28.1	22.5	3.07	25.8	21.5	3.35
	75	67	38.1	20.2	2.14	37.5	20.3	2.37	35.5	19.4	2.60	33.4	18.6	2.85	31.1	17.7	3.11	28.8	16.7	3.39
1200	80	62	36.7	31.7	2.20	35.0	31.6	2.43	32.8	31.2	2.66	30.7	30.1	2.89	28.8	28.8	3.15	26.9	26.9	3.43
	80	67	36.9	23.1	2.21	38.5	26.1	2.43	36.4	25.4	2.67	34.0	24.8	2.92	31.7	23.9	3.18	29.3	22.9	3.47
	80	72	34.2	16.0	2.22	37.8	18.0	2.43	39.9	20.1	2.68	37.7	19.3	2.93	35.1	18.4	3.21	32.4	17.5	3.51
	75	62	36.6	27.1	2.21	34.7	26.5	2.43	32.7	25.8	2.66	30.6	24.9	2.89	28.5	23.9	3.14	26.1	22.7	3.42
	75	67	38.5	20.6	2.20	38.0	20.9	2.44	36.2	20.3	2.67	33.9	19.4	2.92	31.6	18.4	3.18	29.2	17.4	3.46
1350	80	62	37.3	33.3	2.27	35.6	33.4	2.50	33.4	32.8	2.72	31.5	31.5	2.96	29.6	29.6	3.22	27.6	27.6	3.50
	80	67	36.8	23.1	2.27	39.1	27.3	2.50	36.9	26.6	2.74	34.4	26.2	2.98	32.0	25.3	3.25	29.5	24.3	3.54
	80	72	34.2	16.0	2.29	37.6	18.0	2.50	40.4	20.6	2.74	38.2	20.0	3.00	35.5	19.2	3.28	32.7	18.1	3.58
	75	62	37.2	28.3	2.27	35.2	27.9	2.50	33.1	27.1	2.73	31.0	26.2	2.96	28.7	25.1	3.21	26.3	24.1	3.49
	75	67	38.6	20.7	2.27	38.7	21.7	2.50	36.7	21.0	2.74	34.3	20.1	2.98	31.9	19.1	3.25	29.4	18.2	3.53

WSA3BD4M1SN42K + C74B(A,H)M042(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.
1225	80	62	40.6	32.6	2.62	40.5	34.2	2.86	38.8	33.7	3.14	36.9	33.2	3.45	34.9	32.3	3.80	32.7	31.3	4.19
	80	67	40.3	24.6	2.62	43.5	28.2	2.86	42.3	28.1	3.14	40.2	27.5	3.46	38.0	26.6	3.81	35.7	25.6	4.20
	80	72	40.5	19.1	2.62	38.5	18.1	2.85	44.7	21.8	3.14	43.8	21.7	3.46	41.5	20.8	3.82	38.9	19.8	4.21
	75	62	41.7	29.5	2.63	40.5	29.3	2.87	38.7	28.6	3.14	36.8	27.6	3.45	34.8	26.7	3.80	32.6	25.7	4.20
	75	67	40.3	21.0	2.62	43.8	23.5	2.87	42.2	22.8	3.15	40.1	22.0	3.46	37.9	21.1	3.81	35.6	20.1	4.20
1410	80	62	41.2	33.9	2.70	41.3	36.3	2.94	39.5	36.0	3.22	37.5	35.4	3.53	35.4	34.3	3.88	33.2	33.1	4.28
	80	67	40.2	24.6	2.70	44.1	29.1	2.94	43.1	29.6	3.22	40.9	29.0	3.54	38.6	28.0	3.89	36.2	27.0	4.28
	80	72	40.2	18.9	2.69	38.2	18.0	2.93	45.1	22.1	3.22	44.5	22.4	3.54	42.1	21.6	3.90	39.4	20.7	4.29
	75	62	42.6	31.0	2.70	41.2	30.6	2.95	39.4	30.1	3.23	37.4	29.2	3.53	35.3	28.3	3.88	33.0	27.2	4.28
	75	67	40.1	20.9	2.70	44.7	24.3	2.95	42.9	23.7	3.23	40.8	22.9	3.54	38.5	21.9	3.89	36.1	20.8	4.28
1575	80	62	41.4	34.6	2.78	41.9	38.2	3.02	40.1	38.1	3.30	38.0	37.1	3.61	36.0	36.0	3.96	34.2	34.2	4.36
	80	67	40.0	24.5	2.77	44.6	30.1	3.02	43.7	30.9	3.31	41.4	30.4	3.62	39.0	29.5	3.97	36.5	28.5	4.36
	80	72	40.1	18.8	2.77	38.0	17.8	3.00	45.2	22.4	3.30	45.1	23.2	3.62	42.5	22.3	3.98	39.8	21.5	4.37
	75	62	43.3	32.2	2.78	41.8	32.0	3.03	39.9	31.4	3.31	37.8	30.4	3.61	35.7	29.6	3.96	33.3	28.5	4.36
	75	67	39.9	20.8	2.77	45.2	25.0	3.03	43.5	24.5	3.31	41.3	23.6	3.62	38.9	22.7	3.97	36.4	21.7	4.36

WSA3BD4M1SN48K + C74B(A,H)M048(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	47.9	38.4	2.92	45.9	37.9	3.20	43.5	37.0	3.52	41.1	35.8	3.86	38.4	34.6	4.25	35.5	33.2	4.68
	80	67	48.2	29.4	2.91	49.3	31.0	3.20	48.1	31.0	3.53	45.4	30.1	3.90	42.5	28.9	4.30	39.4	27.5	4.73
	80	72	48.8	23.0	2.92	46.3	21.8	3.19	43.7	20.5	3.49	47.7	22.9	3.89	47.1	23.0	4.31	44.1	21.8	4.77
	75	62	47.9	33.1	2.92	45.7	32.3	3.21	43.4	31.2	3.52	41.0	30.0	3.86	38.3	28.8	4.25	35.4	27.4	4.68
	75	67	44.5	23.0	2.90	48.8	25.6	3.20	47.9	25.3	3.53	45.3	24.2	3.90	42.4	23.0	4.30	39.4	21.8	4.73
1600	80	62	48.9	40.4	3.01	46.9	40.0	3.30	44.3	39.1	3.61	41.8	37.9	3.96	39.0	36.6	4.35	36.0	35.2	4.78
	80	67	48.3	29.5	3.00	50.0	31.9	3.29	49.0	32.5	3.63	46.2	31.5	3.99	43.1	30.3	4.39	40.0	29.0	4.83
	80	72	48.7	22.8	3.01	46.1	21.6	3.27	43.5	20.4	3.58	48.0	23.1	3.98	47.7	23.6	4.41	44.7	22.7	4.87
	75	62	48.8	34.5	3.02	46.7	33.8	3.30	44.2	32.7	3.61	41.6	31.5	3.96	38.8	30.2	4.34	35.8	28.8	4.78
	75	67	44.3	22.8	2.99	49.3	26.0	3.30	48.8	26.2	3.63	46.0	25.1	3.99	43.0	23.8	4.39	39.9	22.5	4.83
1800	80	62	49.8	42.2	3.11	47.6	41.9	3.39	44.9	41.2	3.71	42.3	39.9	4.05	39.4	38.5	4.44	36.7	36.7	4.87
	80	67	48.2	29.6	3.09	50.5	32.7	3.39	49.8	33.8	3.72	46.8	32.8	4.09	43.6	31.6	4.49	40.3	30.3	4.92
	80	72	48.5	22.7	3.09	45.9	21.4	3.36	43.2	20.2	3.67	48.0	23.2	4.07	48.2	24.3	4.50	45.1	23.2	4.96
	75	62	49.6	35.9	3.11	47.4	35.2	3.39	44.8	34.1	3.71	42.2	32.8	4.05	39.3	31.5	4.44	36.2	30.0	4.87
	75	67	44.0	22.6	3.08	49.6	26.3	3.39	49.4	26.9	3.72	46.6	25.8	4.09	43.5	24.6	4.49	40.2	23.3	4.92



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.

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