

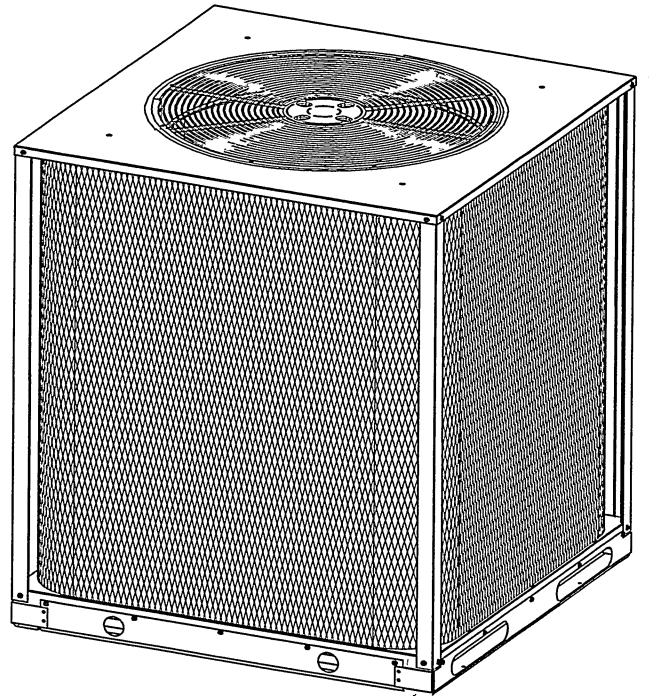
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## TECHNICAL SPECIFICATIONS

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### S3BM Series Split System Air Conditioner 9.0 EER Commercial System 7½ to 10 Ton Capacity

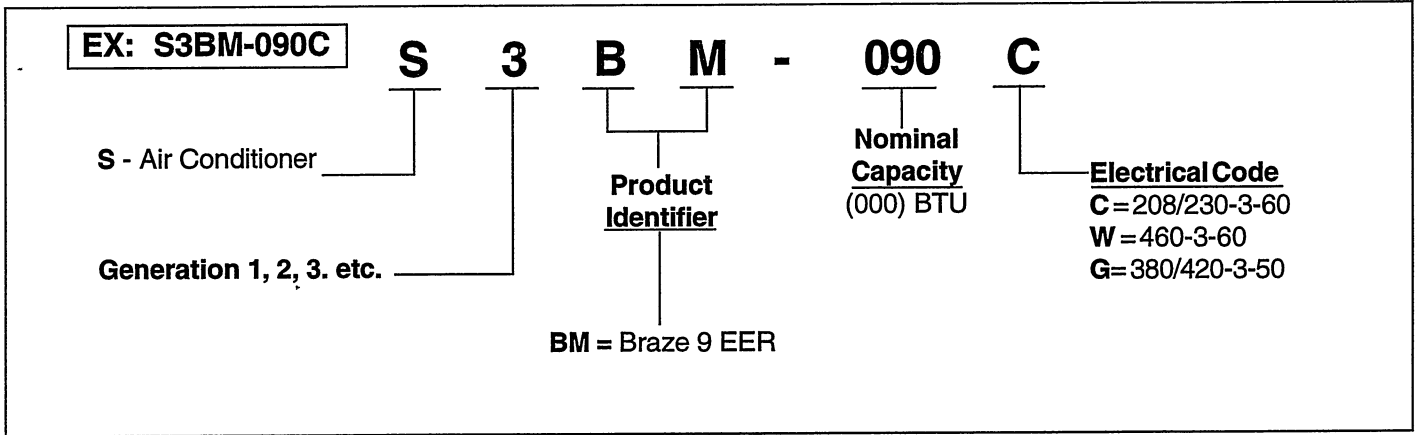
The S3BM Series of air conditioners offers exceptional performance from a small, compact package. The unit, when combined with our air handlers, offers a line of quality, split system cooling equipment. The S3BM is rated at 9 EER when matched with our air handler. Units are ideally sized for slab or rooftop mounting in light commercial applications.



### FEATURES and BENEFITS

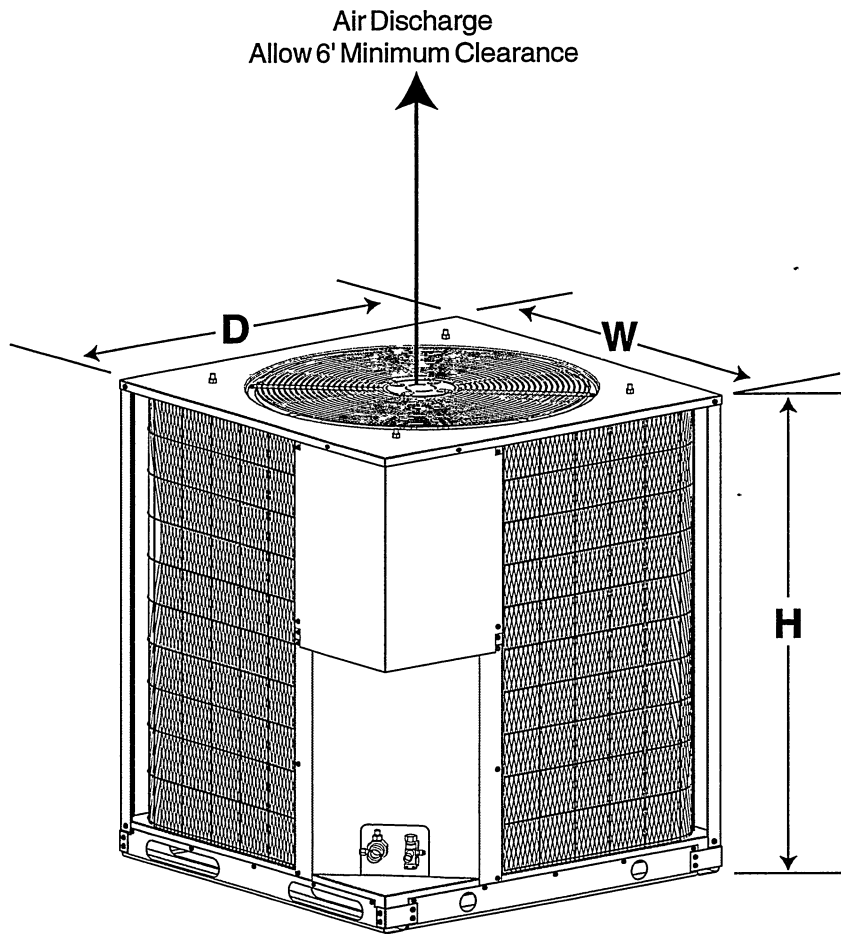
- **Quality Compressor** - State of the art scroll compressor is standard equipment with hi/low pressure switches that ensure long compressor life.
  - **Durable, Attractive Cabinet** - Designed using galvanized steel with a polyester urethane finish. The 950 hour salt spray finish is 1.5 mil thick and resists corrosion 50% better than comparable units.
  - **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.
  - **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.
  - **Full Service Valves** - These brass valves are easily accessible and simplify servicing of the refrigeration system.
  - **Plastic Mesh Hail Guard** - A guard that will never rust and protects the units coil from being damaged.
  - **Removable Top Grille Assembly** - Allows ease of service from the top without disconnecting fan motor leads.
  - **Raised Base** - The sturdy base keeps the bottom of the coil out of harms way and allows water from rain to flow away from the unit.
  - **Five Minute Restart Time Delay** - When the unit shuts down, a five minute delay keeps the unit from restarting, eliminating the highest cause for compressor failure.
  - **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.
  - **1 Year Limited All Parts Warranty, 5 Year Parts Coverage on Compressor** - Proven to be a major benefit to the consumer.
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# MODEL IDENTIFICATION CODES



## DIMENSIONS (Inches) AIR CONDITIONER OUTDOOR SECTION

S3BM-	090	120
Height	44-1/4	44-1/4
Width	37-1/2	37-1/2
Depth	37-1/2	37-1/2
Shipping Height	50	50



# PHYSICAL AND ELECTRICAL SPECIFICATIONS / OUTDOOR UNITS

## 9 EER —High Efficiency — Three Phase

Model No. S3BM-		090C	090W	120C	120W	
Electrical Data	Volts-Phase-Hz	208/230-3-60	380/420-3-50	208/230-3-60	460-3-60	
	Voltage Range (Min-Max)	60 Hz	187-253	414-506	187-253	414-506
		50 Hz	---	361-462	---	361-462
	Total Amps	34.2	17.2	43.1	19.7	
	Min. Circuit Ampacity	41.4	20.9	52.5	24	
	Delay Fuse Max. (1)	70	35.0	90.0	40	
	Wire Size/Max Length (AWG 60°C Cu)	4	8	2	8	
	Wire Size/Max Length (AWG 75°C Cu)	6	8	3	8	
Component Data	Coil	Area	31.94	31.94	31.94	31.94
		Rows-FPI	1-22	1-22	1-22	1-22
		Tube Dia.	3/8 O.D.	3/8 O.D.	3/8 O.D.	3/8 O.D.
	Fan Motor	Volts-Phase-Hz	208/230-1-60	380/420-1-50	208/230-1-60	380/420-1-50
		Qty	1	1	1	1
		Horsepower	1	1	1	1
		Full Load LRA	5.4	2.5	5.4	2.5
	Fan Blade	Dia./Pitch/#Blades	26 / 28 / 4	26 / 28 / 4	26 / 28 / 4	26 / 28 / 4
		RPM/CFM (Max-Total)	1060 / 5500	1060 / 5500	1060 / 8000	1060 / 8000
	Compressor Data	Volts-Phase-Hz	208/230-3-60	460-3-60	208/230-3-60	460-3-60
		Qty./Type	1 / Scroll	1 / Scroll	1 / Scroll	1 / Scroll
		RLA	28.8	14.7	37.7	17.2
		LRA	195	95	239	125
		Stages/Percent	1 / 100	1 / 100	1 / 100	1 / 100
	Refrigerant Suction Line-Length/O.D. (Liq. Line All Lengths - 5/8" O.D.)	0 - 15 ft.	1 1/8"	1 1/8"	1 1/8"	1 1/8"
16 - 25 ft.		1 1/8"	1 1/8"	1 1/8"	1 1/8"	
26 - 75 ft.		1 1/8"	1 1/8"	1 3/8" (3)	1 3/8" (3)	
Circuits (Qty) - 1						
Refrigerant Charge	Holding	56	56	76	76	
R-22 Ounces	Total System with 15' Line Set (2)	288	288	304	304	
Weight Approximate (lbs.)	Net	325	325	341	341	
	Ship	362	362	378	378	

(1) HACR Type Circuit Breakers may be used.

(2) Add 9.0 oz. of refrigerant per 5 foot of additional line set.

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

## ACCESSORIES - Condensing Unit

**Low Ambient Kit - 913549A** — Maintains system pressures during low ambient conditions.

**Liquid Line Solenoid Kit - 917452**

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.

## 9 EER — High Efficiency — Three Phase

Outdoor Unit Number	Indoor Unit Number	BTUH	SEER	SCFM	Orifice
S3BM-090C	B3BM-048K (2 ea)	90,000	9.0	1500 (ea)	0.082(1)
S3BM-090C	B3BH-090	91,000	9.0	3000	TXV
S3BM-090W	B3BM-048K (2 ea)	90,000	9.0	1500 (ea)	0.082(1)
S3BM-090W	B3BH-090	91,000	9.0	3000	TXV
S3BM-120C	B3BM-060K (2 ea)	115,000	9.0	1750 (ea)	0.093(1)
S3BM-120C	B3BH-120	116,000	9.0	4000	TXV
S3BM-120W	B3BM-060K (2 ea)	115,000	9.0	1750 (ea)	0.093(1)
S3BM-120W	B3BH-120	116,000	9.0	4000	TXV

(1) Supplied with indoor coil or air handler.

See current ARI Directory for certified combinations and ratings.

# EXPANDED RATINGS WITH B3BM

## S3BM-090 with B3BM-048K (Twin)

O.D.T.			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.
2500	80	62	80.4	67.6	8.8	77.9	66.9	9.5	71.3	63.5	10.2	67.7	61.6	11.0
	80	67	88.4	59.2	9.0	86.3	58.3	9.7	79.0	55.0	10.4	75.0	53.3	11.3
	80	72	98.2	49.9	9.2	95.6	48.6	10.0	87.6	45.5	10.6	83.4	43.7	11.5
	75	63	81.9	57.1	8.8	79.7	56.3	9.5	72.7	52.9	10.2	69.1	51.2	11.1
3000	80	62	84.6	75.5	9.1	81.9	74.9	9.8	75.0	71.1	10.5	71.2	68.9	11.3
	80	67	92.5	65.5	9.3	90.0	64.2	10.0	82.0	60.7	10.7	77.9	58.9	11.6
	80	72	101.6	53.9	9.5	99.4	52.8	10.3	91.0	49.5	10.9	86.4	47.8	11.9
	75	63	85.6	63.0	9.1	83.2	61.8	9.8	75.6	58.2	10.5	71.7	56.4	11.4
3500	80	62	87.8	82.3	9.4	85.1	81.7	10.1	78.0	76.7	10.7	73.9	73.9	11.6
	80	67	95.6	70.4	9.6	92.7	69.9	10.3	84.2	66.3	10.9	79.9	64.4	11.8
	80	72	104.4	57.6	9.8	102.1	56.7	10.6	93.1	53.3	11.2	88.3	51.5	12.1
	75	63	88.3	67.5	9.4	85.7	67.1	10.1	77.7	63.4	10.7	73.6	61.4	11.6

## S3BM-120 with B3BM-060K (Twin)

O.D.T.			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.
3000	80	62	102.6	85.8	11.0	99.4	84.4	11.9	88.3	78.7	12.8	84.2	76.5	14.0
	80	67	113.1	75.2	11.3	110.1	73.7	12.3	97.8	68.2	13.1	93.2	66.1	14.4
	80	72	125.5	63.3	11.8	121.5	61.6	12.8	108.1	56.2	13.6	103.2	54.2	14.8
	75	63	104.8	72.7	11.1	101.8	71.2	12.0	90.3	65.6	12.8	86.0	63.6	14.0
3500	80	62	107.0	93.8	11.3	103.6	92.6	12.3	91.9	86.4	13.1	87.5	83.8	14.3
	80	67	117.5	81.6	11.7	114.0	80.2	12.7	100.9	73.8	13.5	95.9	71.6	14.7
	80	72	129.7	67.5	12.2	125.8	65.8	13.2	111.4	60.2	13.9	106.2	58.2	15.2
	75	63	108.9	78.8	11.4	105.7	77.4	12.4	93.1	70.8	13.1	88.5	68.7	14.4
4000	80	62	110.7	101.3	11.7	106.9	99.9	12.6	94.9	92.6	13.4	89.4	89.3	14.7
	80	67	120.6	86.6	12.0	117.4	85.5	13.0	103.3	79.4	13.8	98.0	77.2	15.0
	80	72	132.6	71.3	12.5	128.8	69.7	13.5	113.7	64.0	14.3	108.3	61.9	15.5
	75	63	111.9	83.4	11.7	108.4	82.1	12.7	95.4	76.1	13.4	90.5	73.8	14.7

# EXPANDED RATINGS WITH B3BH

## S3BM-090 with B3BH-090

O.D.T.			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.
2500	80	62	83.9	73.6	8.8	81.1	72.6	9.5	74.9	69.5	10.3	71.4	67.7	11.3
	80	67	91.3	62.9	8.9	88.3	61.7	9.7	81.6	58.8	10.5	77.7	57.1	11.5
	80	72	100.0	51.9	9.1	96.3	50.4	9.9	89.4	47.7	10.7	84.9	46.0	11.6
	75	63	85.1	61.0	8.8	82.4	59.9	9.6	76.0	56.9	10.3	72.4	55.1	11.3
3000	80	62	87.2	81.7	9.0	84.2	80.8	9.8	77.9	77.0	10.6	74.3	74.3	11.6
	80	67	94.3	69.0	9.2	91.0	68.1	10.0	83.9	65.0	10.7	79.8	63.3	11.7
	80	72	102.5	55.9	9.4	98.9	54.5	10.2	91.6	51.7	10.9	86.9	50.0	11.9
	75	63	87.9	66.7	9.1	85.0	65.7	9.8	78.2	62.7	10.6	74.3	60.9	11.6
3500	80	62	89.9	88.4	9.3	86.8	86.8	10.1	81.0	81.0	10.9	77.5	77.5	11.9
	80	67	96.3	74.7	9.4	92.9	74.0	10.2	85.5	70.9	11.0	81.2	69.1	11.9
	80	72	103.9	59.6	9.6	100.6	58.4	10.4	93.0	55.6	11.2	88.1	53.4	12.1
	75	63	89.9	72.0	9.3	86.8	71.3	10.1	79.7	68.1	10.8	75.7	66.2	11.8

## S3BM-120 with B3BH-120

O.D.T.			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.
3500	80	62	107.3	91.5	11.4	103.6	89.9	12.3	92.9	84.4	13.2	88.6	82.2	14.5
	80	67	116.7	79.1	11.6	113.1	77.4	12.6	101.0	71.6	13.5	96.4	69.6	14.8
	80	72	127.6	65.3	12.0	123.0	63.4	12.9	110.6	58.4	13.8	105.0	56.3	15.1
	75	63	109.1	76.9	11.4	105.8	75.2	12.4	94.2	69.4	13.3	90.0	67.3	14.5
4000	80	62	110.8	99.5	11.7	106.9	97.9	12.6	95.8	91.9	13.5	91.2	89.2	14.8
	80	67	119.9	84.7	11.9	116.0	83.0	12.9	103.2	77.5	13.8	98.6	75.5	15.1
	80	72	130.8	69.3	12.3	126.1	67.4	13.2	113.0	62.2	14.1	107.1	60.1	15.4
	75	63	112.2	82.1	11.7	108.5	80.5	12.7	96.4	74.9	13.6	92.1	72.8	14.8
4500	80	62	113.6	106.7	11.9	109.6	105.0	12.9	99.3	98.1	13.8	93.8	93.8	15.1
	80	67	122.3	90.4	12.2	118.2	88.8	13.2	105.2	83.2	14.1	100.1	81.0	15.3
	80	72	133.0	73.0	12.5	128.3	71.2	13.5	114.5	66.0	14.4	108.6	63.8	15.6
	75	63	114.5	87.4	12.0	110.7	85.9	13.0	98.4	80.2	13.8	93.6	77.9	15.1





CERTIFICATION APPLIES ONLY  
WHEN THE COMPLETE  
SYSTEM IS LISTED  
WITH AFI

St. Louis, MO

**NORDYNE**

**837A-1200 (Replaces 837A-1200)**

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