



# ***AireForce***<sup>®</sup>

YOUR TRUSTED HVAC SOURCE

## ***Air Conditioner Condensing Units***



# MACH 1

## WSA2BD, WSA2BE, & WSA2BF 13-16 SEER



**Quality Compressor:** State-of-the-art Copeland Scroll™ compressor is standard equipment.

**Removable Top Grille Assembly:** Ease of service from the top without disconnecting fan motor leads.

**Full Service Valves:** These brass valves are easily accessible and simplify servicing of the refrigeration system

**High Pressure Switch:** Protects against abnormally high system pressures. Auto-reset feature prevents nuisance service visits.

**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.

**Powder Coated Wire Guard and Mesh Hail Guard:** Will never rust and protects the coil from being damaged

**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



### 13 SEER | High Efficiency | Single Phase

Model Number WSA2BD4M1			SN18K	SN24K	SN30K	SN36K	SN42K	SN48K	SN60K
Electrical Data	Volts-Cycles-Phase (1)		208/230-60-1						
	Delay Fuse Max. (2)		20	25	30	35	40	50	60
	Min. Circuit Ampacity		12.0	16.7	18.3	22.0	23.0	28.6	34.2
Refrigerant suction line O.D. NOTE: Liquid line is 3/8" O.D. for entire length.	Fan Motor	HP	0.125	0.125	0.125	0.25	0.25	0.25	0.25
	0-24 ft.		3/4"	3/4"	3/4"	3/4"	7/8"	7/8"	7/8"
	25-39 ft.		3/4"	3/4"	3/4"	7/8" (3)	7/8"	7/8"	1-1/8" (4)
40-75 ft.		3/4"	3/4"	3/4"	7/8" (3)	7/8"	7/8"	1-1/8" (4)	
Approximate Weight (lbs.)	Net		93	99	103	108	151	144	175
	Ship		106	112	117	122	172	165	197
Sound Rating db			74	74	74	76	79	79	79

### 14 SEER | High Efficiency | Single Phase

Model Number WSA2BE			SN18K	SN24K	SN30K	SN36K	SN42K	SN48K	SN60K
Electrical Data	Volts-Cycles-Phase (1)		208/230-60-1						
	Delay Fuse Max. (2)		20	30	30	30	40	45	60
	Min. Circuit Ampacity		12.4	17.5	18.5	19.1	23.8	26.2	35.6
Refrigerant suction line O.D. NOTE: Liquid line is 3/8" O.D. for entire length.	Fan Motor	HP	1/10	1/10	1/8	1/4	1/4	1/4	1/3
	0-24 ft.		3/4"	3/4"	3/4"	3/4"	7/8"	7/8"	7/8"
	25-39 ft.		3/4"	3/4"	3/4"	7/8" (3)	7/8"	7/8"	1-1/8" (4)
40-75 ft.		3/4"	3/4"	3/4"	7/8" (3)	7/8"	7/8"	1-1/8" (4)	
Approximate Weight (lbs.)	Net		101	119	126	140	169	170	205
	Ship		116	134	147	164	193	195	230
Sound Rating db			74	74	75	79	79	79	79

# MACH 2

## ESA 1BE & ESA 1BF

14-16 SEER



**Designed Using Galvanized Steel:** With a polyester urethane coat finish, it passes 950 hours of salt spray per ASTM Std. B117.

**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.

**Swept Wing Fan Blade:** Designed to significantly reduce unwanted noise.

**One Piece Top/Orifice:** Designed for maximum airflow and quiet operation.

**Service-Friendly Jacket:** Side panels can be easily removed and replaced without removing the top grill.



### 14 SEER | High Efficiency | Single Phase

Model Number ESA1BE		18K	24K	30K	36K	42K	48K	60K	
Electrical Data	Volts-Cycles-Phase (1)	208/230-60-1							
	Total Amps	9.9	14.4	15.0	15.1	19.4	21.3	29.0	
	Delay Fuse Max. (2)	20	30	30	30	40	45	60	
	Min. Circuit Ampacity	12.1	17.7	18.5	18.6	23.9	26.3	35.6	
Component Data	Fan Motor	Type	PSC						BLDC
		Amps	0.9	0.9	0.9	1.0	1.5	1.5	2.6
		HP	0.13	0.13	0.13	0.20	0.25	0.25	0.33
	Compressor Data	RLA	9.0	13.4	14.1	14.1	17.9	19.8	26.4
		LRA	48.0	58.3	73.0	77.0	112.0	109.0	134.0
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"	3/4"	7/8"	7/8"	7/8"
		25-39 ft.	3/4"	3/4"	3/4"	7/8" (3)	7/8"	7/8"	1-1/8" (4)
		40-75 ft.	3/4"	3/4"	3/4"	7/8" (3)	7/8"	7/8"	1-1/8" (4)

### 16 SEER | Extra High Efficiency | Single Phase

Model Number ESA1BF		24K	30K	36K	42K	48K	60K	
Electrical Data	Volts-Cycles-Phase (1)	208/230-60-1						
	Total Amps	14.1	13.7	15.1	19.4	22.4	31.4	
	Delay Fuse Max. (2)	30	25	30	40	45	60	
	Min. Circuit Ampacity	17.5	16.9	18.6	23.9	27.4	38.6	
Component Data	Fan Motor	Type	PSC				BLDC	
		Amps	0.7	0.9	1.0	1.5	2.6	2.6
		HP	0.10	0.13	0.20	0.25	0.33	0.33
	Compressor Data	RLA	13.4	12.8	14.1	17.9	19.8	28.8
		LRA	58.3	64.0	77.0	112.0	109.0	152.9
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"	7/8"	7/8"	7/8"
		25-39 ft.	3/4"	3/4"	7/8" (3)	7/8"	7/8"	1-1/8" (3)
		40-75 ft.	3/4"	3/4"	7/8" (3)	7/8"	7/8"	1-1/8" (3)

# MACH 3

## FSA 1BD, FSA 1BF, & FSA 1BG 13-20 SEER



**CoreSense Compressor Protection:** Control module actively monitors compressor conditions and will shut the unit down to prevent damage.

**Copeland Scroll UltraTech Compressor:** The Ultra Tech Compressor operates with 2 stages of cooling capacity to provide superior comfort and efficiency.

**Compressor Sound Blanket:** Engineered to significantly reduce unwanted compressor noise.

**Low and High Pressure Switch:** Protects against abnormally high system and low pressures. Auto-reset feature prevents nuisance service visits.

**One Piece Top/Orifice:** Designed for maximum airflow and quiet operation.



### 16 SEER | Extra High Efficiency

Model Number FSA1BF			24K	36K	48K	60K
Electrical Data	Volts-Cycles-Phase (1)		208/230-60-1			
	Total Amps		12.3	16.5	23.7	31.4
	Delay Fuse Max. (2)		25	35	50	60
	Min. Circuit Ampacity		15.3	20.3	29.0	38.6
Component Data	Fan Motor	Type	PSC		BLDC	
		Amps	0.7	1.3	2.6	2.6
	Compressor Data	HP	0.10	0.25	0.33	0.33
		RLA	11.6	15.2	21.1	28.8
Refrigerant suction line O.D. NOTE: Liquid line is 3/8" O.D. for entire length.	LRA		58.3	83.0	104.0	152.9
	0-24 ft.		3/4"	7/8"(4)	7/8"	7/8"
	25-39 ft.		7/8" (3)	1-1/8" (3)	1-1/8" (3)	1-1/8" (3)
40-75 ft.		7/8" (3)	1-1/8" (3)	1-1/8" (3)	1-1/8" (3)	

### 20 SEER | Ultra High Efficiency

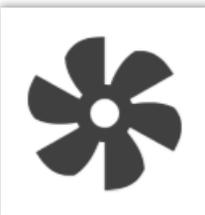
Model Number FSA1BG			24K	36K	48K	60K
ELECTRICAL DATA	Volts-Cycles-Phase (1)		208/230-60-1			
	Total Amps		11.9	17.3	18.9	28.8
	Delay Fuse Max. (2)		20	35	35	60
	Min. Circuit Ampacity		14.2	21	23	35.1
	Field Control Wiring Connections (24 vac from thermostat/indoor side)		R, C, Y1, Y2			
COMPONENT DATA	Fan Motor	Type	Brushless DC			
		Amps	2.6	2.6	2.6	3.8
		HP	1/3	1/3	1/3	1/2
	Compressor Data	RLA	9.3	14.7	16.3	25
		LRA	N/A	N/A	N/A	N/A
	Service Valves	Liquid Side	3/8"	3/8"	3/8"	3/8"
Vapor Side		3/4"	7/8"	7/8"	7/8"	
Installation Refrigerant Vapor Line Size (All liquid lines 3/8" OD)	0 - 24 ft. equiv.		3/4"	7/8"	7/8"	7/8"
	25 - 39 ft. equiv.		3/4"	7/8"	1-1/8"	1-1/8"
	40 - 75 ft. equiv. (4)		7/8"	1-1/8"	1-1/8"	1-1/8"
	75 - 100 ft. equiv. (4)		1-1/8"	1-1/8"	1-1/8"	1-1/8"

# Air Handlers

## ***B6BMMO, B6BMMX, B6EMMX, B6VMMX, B6VMAX***



The benefits of **two-stage with variable-speed cooling**. Two-stage cooling products maintain a more consistent comfort level throughout your home. During the first stage, which is about 80% of the time, the unit will use about 68% of its cooling capacity. It will always start in the first stage and attempt to meet the cooling demand. This reduced capacity is enough to efficiently cool your home on mild summer days. When the temperature rises the air conditioner or heat pump automatically adjusts itself and enters the second stage to meet the increased cooling demand.



A two-stage air conditioner or heat pump **paired with a variable-speed indoor unit** runs for longer cycles and will remove up to six times more moisture than a conventional unit. The result is a more comfortable environment even at a higher thermostat setting. Thanks to two-stage technology the temperature in your home will only vary a couple of degrees and you will experience quiet comfort. The unique variable-speed motor decreases fan noise. Since the fan operates slower during the low-stage cooling demand, it produces less noise. The variable speed also allows the motor to ramp up to speed slowly, eliminating uncomfortable temperature swings. Efficient operation is what two-stage, variable-speed cooling is all about.

***Check out our AireForce Air Handlers Brochure for more information!***



*Get up to speed.*



**iQ Drive®** air conditioners and heat pumps utilize inverter-driven rotary technology. The iQ Drive system's inverter component converts the electrical current from AC to DC and, in doing so, can vary the compressor and fan motor speeds. The unit can modulate in five steps from 49 to 118 percent of capacity, instantly adjusting to exactly offset the cooling or heating demands on the home. Because the iQ Drive unit doesn't cycle on and off like a traditional system, it saves energy and considerably reduces sound levels.



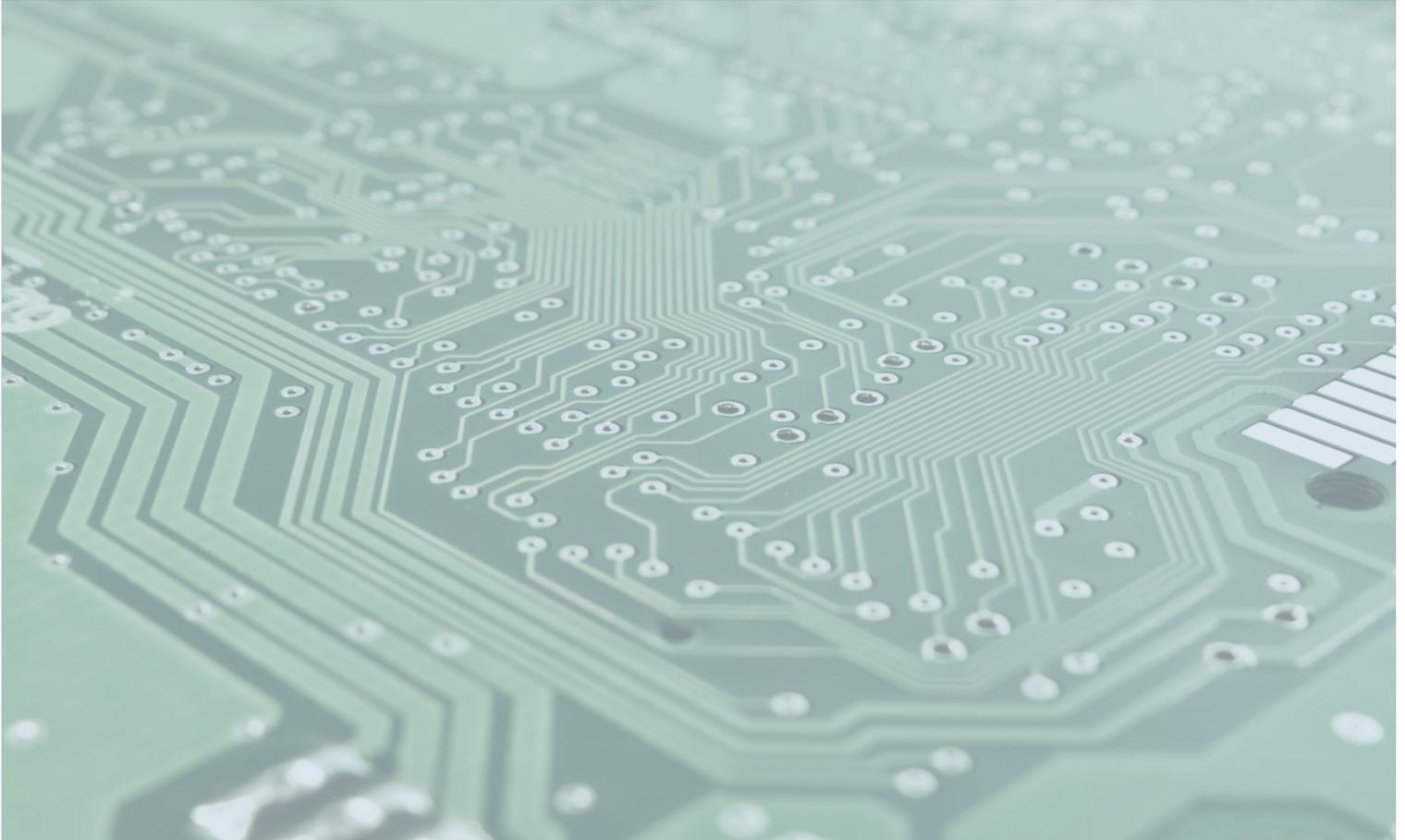
Look for the **ecoLogic®** seal. AireForce two-stage, variable speed products are energy-efficient, environmentally responsible products.



**ENERGY STAR®** certification is awarded to products designed to reduce energy consumption and utility costs. To qualify, split system air conditioners and heat pumps must have a Seasonal Energy Efficiency Ratio (SEER) rating of 15.0 or higher and an Energy Efficiency Ratio (EER) of 12.5 or higher. Split-system heat pumps are also rated by a Heating Seasonal Performance Factor (HSPF) and must have a rating of 8.5 or higher.

# **Quality**

## ***Demand Flow Technology***



Every AireForce part goes through a three-part quality check at each stage of the manufacturing process known as the Demand Flow Technology or “DFT.”

DFT consists of automated quality control stations that are designed to eliminate the potential for human error and increase quality testing accuracy. This means each heat pump and air conditioner is checked 144 times, furnaces are checked 234 times, and each packaged unit is checked over 72 times throughout the DFT certified manufacturing process.

# *Get up to speed.*



**AireForce promises a 10 year warranty on all parts when product is registered.**



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