# TECHNICAL SPECIFICATIONS

## Frigidaire

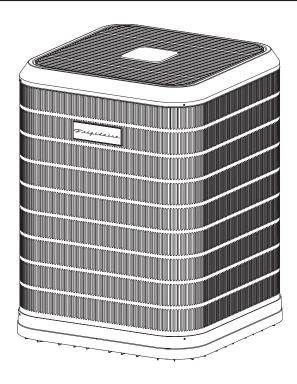


# FS4BI Series R-410A Ultra High Efficiency Air Conditioner 23 SEER Residential System 2-3-4 Ton Capacities

The iQ Drive™ Air Conditioning System features fully variable speed compressor technology and variable speed indoor and outdoor motors. The system provides variable cooling capacity as needed modulating over a 5 degree F° temperature range. It operates near the nominal rated capacity at the thermostat set point and modulates as temperature difference between set point and room temperature changes. The system may run at additional 18% capacity to provide rapid cooling. The system has a built-in humidity control that will activate humidifier equipment (if supplied), and reduces blower speed if indoor relative humidity is greater than set point (default set at 60%).

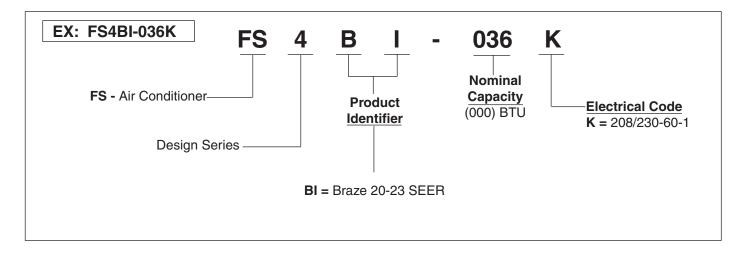
#### **FEATURES and BENEFITS**

- IQ Drive Inverter driven Panasonic rotary compressor which provides fully variable operation.
- R-410A Refrigerant Earth friendly non-ozone depleting refrigerant.
- Designed using galvanized steel with a polyester urethane coat finish. The 950 hour salt spray finish 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 brushless motor for long lasting reliability and quiet operation. Requires no maintenance and is completely protected from rain and snow.
- Compressor Sound Blanket Engineered to significantly reduce unwanted compressor noise.



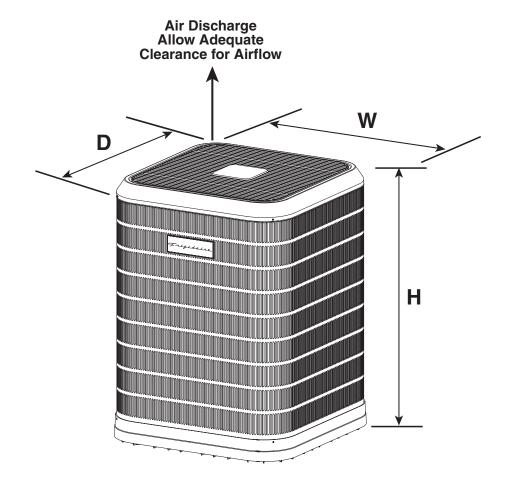
- Swept-Wing Fan Blade Engineered to provide quiet operation. The specific energy absorbing hub is designed to reduce noise while operating through various frequencies.
- Full Port Service Valves Full port brass ball valves provide low pressure drop and ease of service. The valves are actuated by 1/4 turn full open to full close.
- 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.
- High Pressure Switch Protects against abnormally high system pressures. Auto-reset feature prevents nuisance service visits.
- Low Pressure Switch Protects against loss of system refrigerant charge.
- 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.
- 8 Year Limited All Parts Warranty, 5 Year Quality Pledge – The best in the industry and has proven to be a major benefit to the consumer.

## **MODEL IDENTIFICATION CODES**



# DIMENSIONS AIR CONDITIONER OUTDOOR SECTION

FS4BI	024K	036K	048K	
Н	37	41	45	
W	31 1/4	31 1/4	31 1/4	
D	31 1/4	31 1/4	31 1/4	



# PHYSICAL AND ELECTRICAL SPECIFICATIONS / OUTDOOR UNITS 23 SEER — Ultra High Efficiency — Single Phase

Model Number FS4BI-		024K	036K	048K	
Electrical Data	Volts-Cycles-Phase (1)		208/230-60-1	208/230-60-1	208/230-60-1
	Total Amps		13.0	18.0	22.0
	Delay Fuse Max. (2)		25	35	45
	Min. Circuit Ampacity		16.6	22.9	27.1
		Area(ft²)	20.3	22.8	25.4
	Coil	Rows-FPI	1 - 22	1 - 22	1 - 22
		Tube Dia	3/8" O.D.	3/8" O.D.	3/8" O.D.
	Fan Motor	Type	Brushless DC	Brushless DC	Brushless DC
Condenser Data		Amps	1.6	1.6	1.6
		HP	0.5	0.5	0.5
	Fan Blade	Dia-# Blades	24" - 2	24" - 2	24" - 2
		SCFM	3200	3400	3600
	Compressor Data	RLA	11.4	16.4	20.4
Refrigerant suction line O.D. (all length of liquid line are 3/8" O.D.)		0-24 ft.	3/4"	7/8"	7/8"
		25-39 ft.	3/4"	7/8"	7/8"
		40-75 ft.	3/4"	7/8"	7/8"
Refrigerant charge (R-410A) in ounces for outdoor					
unit, indoor unit and 15' lineset.		160	168	188	
Weight		Net	170	175	180
Approximate (lbs.)		Ship	180	185	190

<sup>(1)</sup> Operating Voltage Range: 187v min. — 253v max.

#### Note:

**Refrigerant Tubing Limitations-**The compressor manufacturer imposes a maximum equivalent line set length of 100ft. Furthermore, vertical elevation shall not exceed 50 ft.

#### **ACCESSORIES**

#### Controller/Thermostat

Sku 919348

(Required to operate the IQ Drive System)

COPPER WIRE SIZE — AWG (1% Voltage Drop)						
Supply Wire Length-Feet			<b>Supply Circuit</b>			
200	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		

Wire Size based on N.E.C. for  $60^{\circ}$  type copper conductors.

<sup>(2)</sup> HACR Type Circuit Breakers may be used.

## **SYSTEM COOLING CAPACITIES**

## 23 SEER — Ultra High Efficiency — Single Phase

Outdoor Unit Model Number FS4BI-	Indoor Unit	Range Cooling Capacity @95° OD BTUH	SEER	Nominal Capacity	EER @ Nominal Capacity	Range SCFM
024K	C5BH-E36C-B*	10,000 - 28,000	23	24,000	15.0	500 - 950
036K	C5BH-E36C-B*	15,000 - 40,000	21	36,000	13.5	680 - 1110
048K	C5BH-E48C-C*	16,000 - 54,000	21	47,000	13.0	680 - 1455

<sup>\*</sup>Blower Conversion Kit 904492 is required.

Outdoor Unit Model Number FS4BI-	Indoor Unit	Range Cooling Capacity @95° OD BTUH	SEER	Nominal Capacity	EER @ Nominal Capacity	Range SCFM
024K	B5VM-E36K-B	10,000 - 28,000	23	24,000	15.0	500 - 950
036K	B5VM-E36K-B	15,000 - 40,000	21	36,000	13.5	680 - 1110
048K	B5VM-E48K-C	16,000 - 54,000	21	47,000	13.0	680 - 1455

See current ARI Directory for certified combinations and ratings.









ERTIFICATION APPLIES ONLY WHEN THE COMPLETE SYSTEM IS LISTED WITH ARI