### TECHNICAL SPECIFICATIONS



## DS4BF Series R-410A Extra High Efficiency Air Conditioner 16 SEER Residential System 2 - 5 Ton Capacity

The DS4BF Series now offers the choice of an air conditioner that uses a more efficient and environmentally friendly refrigerant designated R-410A. The DS4BF Series of air conditioners offers exceptional performance. The unit, when combined with our engineered coils or air handlers, offers a line of quality, 16 SEER split system cooling equipment.

#### FEATURES and BENEFITS

- Warranty
  - This product offers a 10-year all-parts warranty.
  - This product offers a 1 Year Quality Pledge to replace the unit if the compressor fails in the first year of operation, to the original owner. All split system products must be installed with a matched indoor air handler or indoor coil.
  - Consumer product registration required for 10 year All Parts Warranty and Quality Pledge within a limited period of time after the installation. See current warranty document or visit our consumer web site listed on the back of this document for warranty details.
- **R-410A Refrigerant** Earth friendly non-ozone depleting refrigerant.
- **ComfortAlert™ Module** Detects system and electrical problem conditions. A diagnostics key directs the service technician to the root cause of a problem.
- Copeland Scroll UltraTech<sup>™</sup> Compressor The Ultra Tech Compressor operates with 2 stages of cooling capacity to provide superior comfort and efficiency. Copeland's proven and simple design equates to years of comfort and reliability for the homeowner with virtually silent operation.
- **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 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.
- 2-1/2" Pedestal Base The sturdy base keeps the bottom of the coil out of harms way. Secondly, the base has weep holes along the edge to allow the water from rain to flow away from the unit.
- Swept-Wing Fan Blade
- 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.
- Low Pressure Switch Loss of charge protection ensures long compressor life. Auto-reset feature prevents nuisance service visits.
- **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.

### MODEL IDENTIFICATION CODES



### DIMENSIONS AIR CONDITIONER OUTDOOR SECTION

DS4BF	024	036	048	060
н	34 1/2	42 1/2	42 1/2	42 1/2
W	30 1/2	30 1/2	30 1/2	30 1/2
D	30 1/2	30 1/2	30 1/2	30 1/2

Air Discharge Allow Adequate Clearance for Airflow



### **PHYSICAL AND ELECTRICAL SPECIFICATIONS / OUTDOOR UNITS**

Model Number DS4BF			024	036	048	060
Electrical Data	Volts-Cycles-Phase (1)		208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1
	Total Amps		11.3	17.9	22.4	26.9
Electrical Data	Delay Fuse Max. (2)		20	35	45	50
	Min. Circuit Ampacity		13.9	22.1	27.7	33.3
		Area	20.3	25.4	25.4	25.4
	Coil	Rows-FPI	2-18	2-18	2-18	2-18
		Tube Dia	3/8" O.D.	3/8" O.D.	3/8" O.D.	3/8" O.D.
	Fan Motor	Туре	PSC	PSC	PSC	PSC
		Speeds	1	2	2	2
Condenser Data		Amps	1.0	1.3	1.3	1.3
		Lo/Hi Spd Watts	200	187/250	187/250	187/250
		HP	1/4	1/4	1/4	1/4
	Fan Blade	Dia-# Blades	24"- 2	24"- 2	24"- 2	24"- 2
		SCFM	3600	4000	4000	4000
	Compressor Data	RLA	10.3	16.6	21.1	25.6
	Compressor Data	LRA	52	82	96	99
Pofrigorant subtion	ling O D (all longth	0-24 ft.	3/4"	7/8"(4)	7/8"	7/8"
Refrigerant suction line O.D.(all length of liquid line are 3/8" O.D.)		25-39 ft.	7/8"	1-1/8" <i>(3)</i>	1-1/8" <i>(3)</i>	1-1/8" <i>(3)</i>
		40-75 ft.	7/8"	1-1/8" <i>(3)</i>	1-1/8" <i>(3)</i>	1-1/8" <i>(3)</i>
Refrigerant charge	(R-410A) in ounces	for outdoor unit,				
indoor unit and 15' lineset.		192	264	232	248	
Weight Approximat	e (lbs)	Net	248	260	270	284
Weight Approximate (ibs.)		Ship	260	272	282	296

### 16 SEER — R-410A Extra High Efficiency — Single Phase

(1) Operating voltage range: 187V minimum - 253 V maximum

(2) HACR type circuit breakers may be used

(3) Requires 1-1/8 to 7/8" reducer from unit to lineset.

(4) Use of a 3/4" lineset will result in approximately 2% loss in capacity.

### **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.

COPPER WIRE SIZE — AWG (1% Voltage Drop)								
Supp	y Wire	Supply Circuit						
200	150	100	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.

### SYSTEM COOLING CAPACITIES

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

With this Coil								
Outdoor Unit Number DS4BF	Indoor Unit Number C4BA-	Low Speed Capacity (Btu/h)	High Speed Capacity (Btu/h)	SEER	EER	Low Speed SCFM	High Speed SCFM	
024K	X24(C,U)-B+VSB	18000	24000	15.5	13.1	650	850	
036K	X36(C,U)-B+VSB	25000	36000	16.0	12.5	720	1050	
048K	X48(C,U)-C+VSB	35000	48000	16.2	12.5	1100	1595	
060K	X60(C,U)-C+VSB	42000	57000	15.0	11.5	1170	1700	

With this Air Handler								
Outdoor Unit Number DS4BF	Indoor Unit Number GB4VM-	Low Speed Capacity (Btu/h)	High Speed Capacity (Btu/h)	SEER	EER	Low Speed SCFM	High Speed SCFM	
024K	X24KB	18000	24000	15.5	13.1	650	850	
036K	X36KB	25000	36000	16.0	12.5	730	1060	
048K	X48KC	35000	48000	16.2	12.5	1070	1555	
060K	X60KC	42000	57000	15.0	11.5	1150	1665	

Air handlers and coils used in tables are designed and manufactured by NORDYNE.

# **COMFORT ALERT™ DIAGNOSTIC MODULE**



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. (02/07)



