# TECHNICAL SPECIFICATIONS

#### **DS3BD Series**

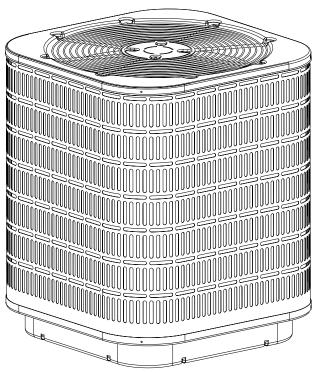
# Ultra High Efficiency Air Conditioner 13+ SEER Residential System

# 2 - 5 Ton Capacity

The DS3BD Series of air conditioners offers exceptional performance from a small, compact package. The unit, when combined with our engineered coils or air handlers, offers a line of quality, split system cooling equipment. The DS3BD is rated at 13 SEER when matched with our B3BM air handler and C3BA coils. When matched with our variable speed air handler, or our variable speed blower kits, the DS3BD is rated up to 14 SEER. Units are ideally sized for slab or rooftop mounting in single, multifamily, and \*light commercial applications.

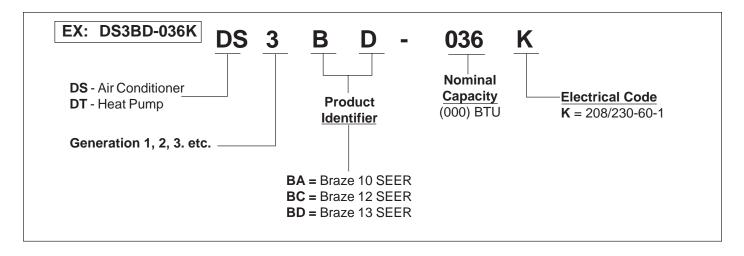
#### FEATURES and BENEFITS

- Quality Compressor State of the art scroll compressor is standard equipment.
- 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.
- Steel Guard<sup>™</sup> Protects the unit coil from being damaged by balls, lawnmowers, hail, etc.



- Removable Top Grille Assembly Allows ease of service from the top without disconnecting fan motor leads.
- One Piece Top/Orifice Designed for maximum airflow and quiet operation.
- 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.
- 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.
- 6 Year Limited All Parts Warranty, 10 Year Parts Coverage on Compressor – Has proven to be a major benefit to the consumer.
- \* Commercial Warranty 1 year parts, 5 years compressor.

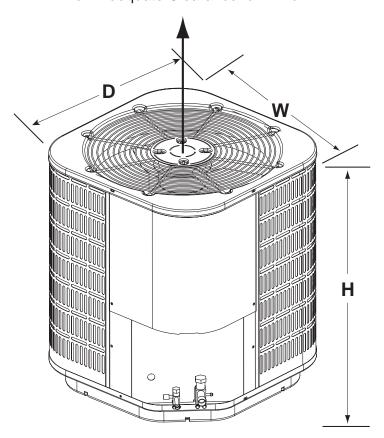
#### **MODEL IDENTIFICATION CODES**



# DIMENSIONS AIR CONDITIONER OUTDOOR SECTION

DS3BD-	024	030	036	042	048	060
Н	30-1/2	34-1/2	38-1/2	38-1/2	42-1/2	42-1/2
W	30-1/2	30-1/2	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	30-1/2	30-1/2

Air Discharge Allow Adequate Clearance for Airflow



## PHYSICAL AND ELECTRICAL SPECIFICATIONS / OUTDOOR UNITS

#### 13+ SEER —Ultra High Efficiency — Single Phase

Model No. DS3BD-	•		024K	030K	036K	042K	048K	060K
Electrical	Volts-Cycles-Phase	: (1)	208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1	208/230-60-1
Data	Total Amps		11.6	13.6	16.2	17.5	19.8	26.4
	Delay Fuse Max. (2	r)	20	25	30	35	40	50
	Min. Circuit Ampaci	ty	14.2	16.6	19.9	21.5	24.4	32.6
Component	Coil	Area	17.9	20.4	23.0	23.0	25.5	25.5
Data		Rows-FPI	1-22	1-22	1-22	1-22	1-22	2-18
		Tube Dia.	3/8 O.D.					
	Fan	Туре	PSC	PSC	PSC	PSC	PSC	PSC
	Motor	Amps	1.4	1.4	1.5	1.5	1.5	1.4
		Watts-HP	245	245	300	300	300	245
	Fan	Dia#Blades	24 in 2	24 in 2	24 in 3	24 in 3	24 in 3	24 in 2
	Blade	SCFM	3300	3300	4000	4000	4000	4000
	Compressor	RLA	10.2	12.2	14.7	16.0	18.3	25
	Data	LRA	56	67	83	90	109	169
Refrigerant Suction	Line-Length/O.D.	0 - 24 ft.	3/4"	3/4"	3/4"	3/4"	7/8"	7/8"
(Liq. Line All Length	ns - 3/8"O.D.)	25 - 39 ft.	3/4"	3/4"	3/4"	7/8" (3)	7/8"	1-1/8" (4)
		40 - 75 ft.	3/4"	7/8" (3)	7/8" (3)	7/8" (3)	7/8"	1-1/8" (4)
Refrigerant Charge (Outdoor unit, Indoor Unit								
	15' Line Set) R	-22 Ounces	94	114	114	131	143	192
Weight	•	Net	172	182	198	191	199	250
Approximate (lbs.)		Ship	184	194	211	203	211	265

- (1) Operating Voltage Range: 187v min. 253v max.
- (2) HACR Type Circuit Breakers may be used.
- (3) Requires 7/8" to 3/4" reducer from line to unit.
- (4) 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.

Fan Delay Kit (TDR) 911758 - 80-second fan delay

COPPER WIRE SIZE — AWG									
	(1% Voltage Drop)								
Supply	Supply Wire Length-Feet Supply Circ								
200	150	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° type copper conductors.

#### SYSTEM COOLING CAPACITIES

## 13+ SEER — Ultra High Efficiency — Single Phase

Outdoor Unit	Indoor Unit				
Number DS3BD-	Number C3BA-	BTUH	SEER	SCFM	Orifice (1)
024K	036C/U-A+TDR† (2)	24,000	13.0	900	.065
024K	036C/U-B+TDR† (2)	24,000	13.0	900	.065
030K	036C/U-A+TDR† (2)	30,000	13.0	1050	.069
030K	036C/U-B+TDR† (2)	30,000	13.0	1050	.069
036K	042C/U-B+TDR† (2)	36,000	13.0	1250	.080
042K	048C/U-B+TDR† (2)	40,000	13.0	1250	.080
042K	048C/U-C+TDR†	40,000	13.0	1250	.080
048K	060C/U-C+TDR† (2)	48,000	13.0	1550	.087
060K	060C/U-C+TDR† (2)	56,000	13.0	1550	.103

Outdoor Unit	Indoor Unit				
Number DS3BD-	Number B3B(M,V)-	BTUH	SEER	SCFM	Orifice (1)
024K	030K-A	24,000	13.0	900	.065
024K	036K-B	24,000	13.0	900	.065
030K	036K-A	30,000	13.0	1050	.069
036K	042K-B	36,000	13.0	1250	.080
042K	048K-B	40,000	13.0	1250	.080
048K	060K-C	48,000	13.0	1550	.087
060K	066K-C	57,000	13.0	1700	.103

## SYSTEM COOLING CAPACITIES

# 14 SEER — Ultra High Efficiency — Single Phase

Outdoor Unit	Indoor Unit				
Number DS3BD-	Number C3BA-	BTUH	SEER	SCFM	Orifice (1)
024K	036C/U-B+VSB (2)	24,800	14.0	880	.065
030K	036C/U-B+VSB (2)	30,800	14.0	1100	.069
036K	042C/U-B+VSB (2)	36,600	14.0	1200	.080
042K	048C/U-B+VSB (2)	40,500	14.0	1200	.080
042K	048C/U-C+VSB	40,500	14.0	1200	.080
048K	060C/U-C+VSB (2)	48,500	14.0	1550	.087
060K	060C/U-C+VSB (2)	56,500	14.0	1550	.103

Outdoor Unit Number DS3BD-	Indoor Unit Number B3VM-	втин	SEER	SCFM	Orifice (1)
024K	036K-B	24,800	14.0	880	.065
030K	036K-B	30,800	14.0	1100	.069
036K	048K-B	36,600	14.0	1200	.080
042K	048K-B	40,500	14.0	1200	.080
048K	060K-C	48,500	14.0	1550	.087
060K	066K-C	57,500	14.0	1665	.103

Outdoor Unit	Indoor Unit				
Number DS3BD-	Number B3B(M,V)-	BTUH	SEER	SCFM	Orifice (1)
024K	036K-B+VSB	24,800	14.0	880	.065
030K	036K-B+VSB	30,800	14.0	1100	.069
036K	042K-B+VSB	36,600	14.0	1200	.080
042K	048K-B+VSB	40,500	14.0	1200	.080
048K	060K-C+VSB	48,500	14.0	1550	.087
060K	066K-C+VSB	57,500	14.0	1665	.103

- † TDR = Time Delay Relay, included with G6\* unit.
- (1) Orifice supplied with outdoor unit.
- (2) Available as horizontal cased coil.

See Current ARI Directory for certified combinations and ratings.







CERTIFICATION APPLIES ONLY WHEN THE COMPLETE SYSTEM IS LISTED WITH ARI





