

FS5BD Series

High Efficiency Air Conditioner

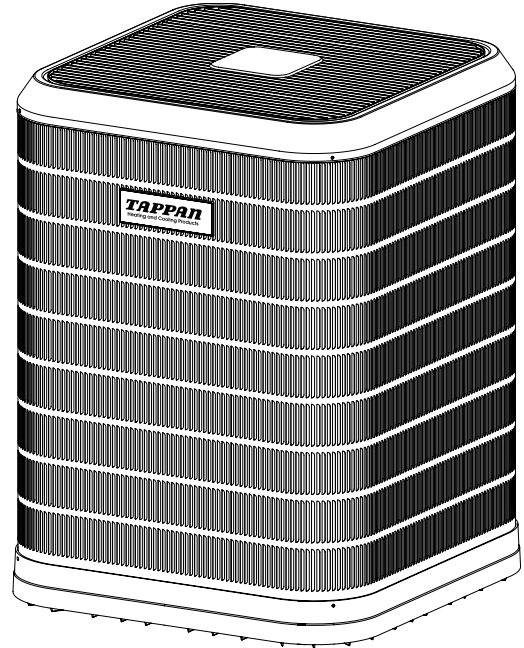
13+ SEER Residential System

1.5 - 5 Ton Capacity

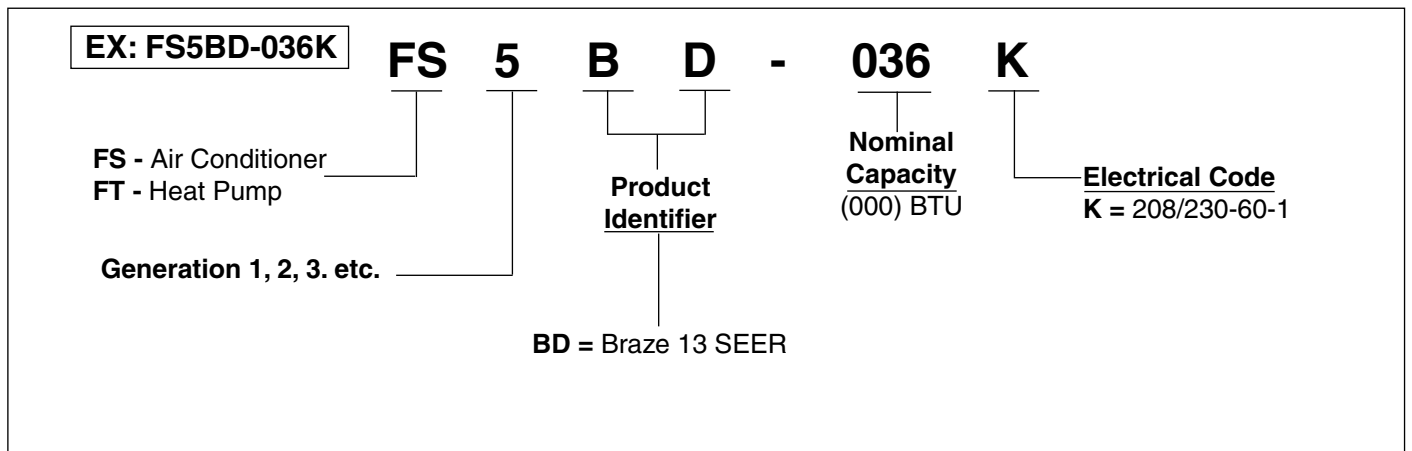
The FS5BD Series of air conditioners offers exceptional performance. The unit, when combined with our engineered coils or air handlers, offers a line of quality, split system cooling equipment. The FS5BD is rated at 13 SEER when matched with our B5BM air handler and C5BA coils. When matched with our variable speed air handler, or our variable speed blower kits, the FS5BD is rated up to 14 SEER.

FEATURES and BENEFITS

- **Warranty**
 - This product offers a 10-year all-parts warranty.
 - This product offers a 10 year Quality Pledge to replace the entire unit, if the unit's major component (heat exchanger or compressor) fails within the first 10 years of operation, to the original owner. All split system products must be installed with a matched indoor air handler or indoor coil to qualify.
 - Consumer product registration required for both 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.
- **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.
- **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.
- **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.



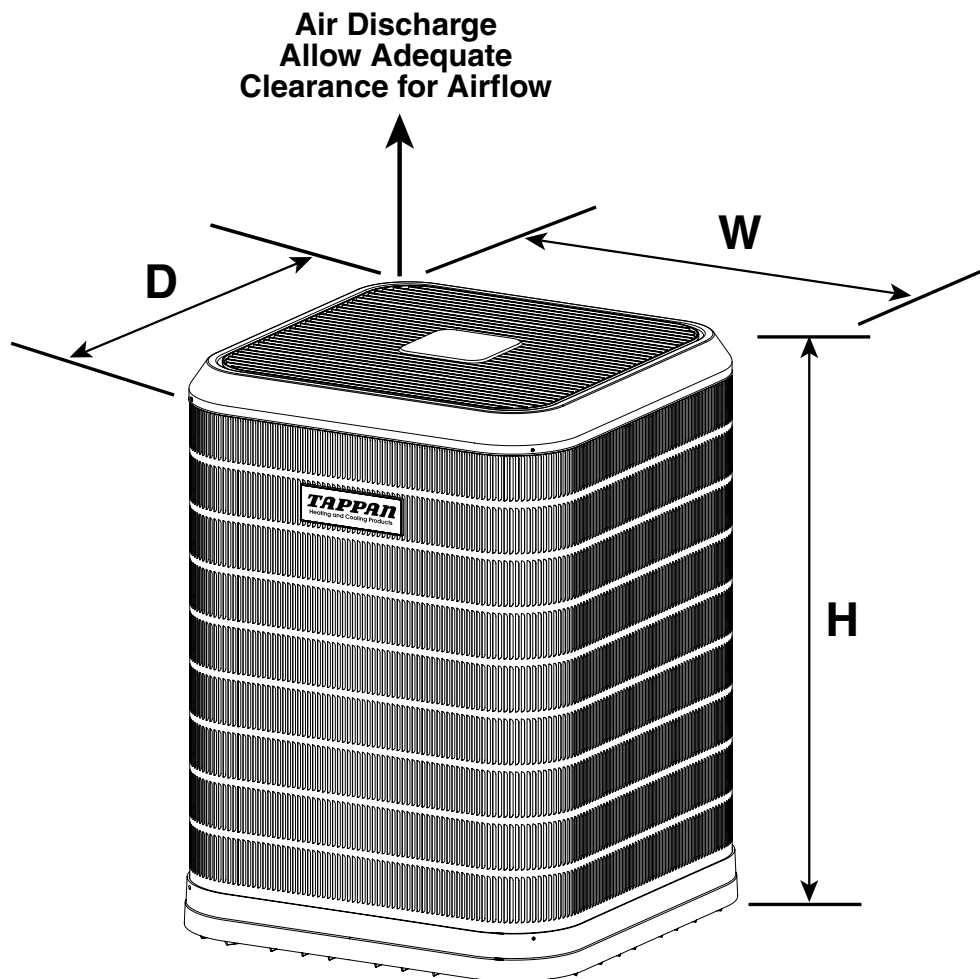
MODEL IDENTIFICATION CODES



DIMENSIONS

AIR CONDITIONER OUTDOOR SECTION

FS5BD-	018K	024K	030K	036K	042K	048K	060K
H	32-1/4	36-1/4	37	41	45	45	45
W	23-1/4	23-1/4	31-1/4	31-1/4	31-1/4	31-1/4	31-1/4
D	23-1/4	23-1/4	31-1/4	31-1/4	31-1/4	31-1/4	31-1/4



PHYSICAL AND ELECTRICAL SPECIFICATIONS / OUTDOOR UNITS

13 SEER — High Efficiency — Single Phase

Model Number FS5BD-			018K	024K	030K	036K	042K	048K	060K
Electrical Data	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	208/230-60-1
	Total Amps		8.9	12.3	16.7	17.0	17.8	22.9	29.6
	Delay Fuse Max. (2)		15	25	35	35	35	45	60
	Min. Circuit Ampacity		11.1	15.2	20.6	21.0	21.9	28.3	36.7
Component Data	Coil	Area	11.49	13.22	20.33	22.88	25.42	25.42	25.42
		Rows-FPI	1 - 22	1 - 22	1 - 22	1 - 22	1 - 22	1 - 22	2 - 18
		Tube Dia	3/8" O.D.	3/8" O.D.	3/8" O.D.	3/8" O.D.	3/8" O.D.	3/8" O.D.	3/8" O.D.
	Fan Motor	Type	PSC	PSC	PSC	PSC	PSC	PSC	PSC
		Amps	0.34	0.67	1.00	1.00	1.40	1.40	1.40
		HP	1/20	1/10	1/4	1/4	1/4	1/4	1/4
	Fan Blade	Dia-# Blades	18" - 2	18" - 3	24" - 2	24" - 2	24" - 2	24" - 2	24" - 2
		SCFM	1410	1985	3000	3000	4000	4000	4000
	Compressor Data	RLA	9	12	16	16	16	22	28
		LRA	40	54	68	77	77	97	141
Refrigerant suction line- Length/O.D. (Liq. Line All Lengths - 3/8" O.D.)		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"	3/4"	7/8"	7/8"	7/8"
		40-75 ft.	3/4"	3/4"	3/4"	7/8" (3)	7/8"	1-1/8" (4)	1-1/8" (4)
Refrigerant Charge in Ounces (Outdoor unit, Indoor Unit 15' Line Set)			80	98	116	116	170	147	232
Weight Approximate (lbs.)		Net	143	152	162	171	219	219	276
		Ship	150	160	170	180	230	230	290

(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.

Thermostat

Two thermostats are available.

911096 - Single-Stage

911100 - Two-Stage Heat / One-Stage Cool

Fan Delay Kit (TDR)

911758 - 80-second fan delay

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

Wire Size based on N.E.C. for 60° type copper conductors.

SYSTEM COOLING CAPACITIES

13 SEER — High Efficiency — Single Phase

Outdoor Unit	Indoor Piston Coil	Cooling Capacity BTUH	SEER	EER	SCFM	Orifice
018K	C5B(A,H)-024(C,U)-A+TDR+LLS	18,000	13.0	12.1	600	0.050
018K	C5B(A,H)-025(C,U)-A+TDR+LLS	18,000	13.0	12.1	600	0.050 (1)
024K	C5B(A,H)-025(C,U)-A+TDR+LLS	24,000	13.0	11.9	750	0.059
024K	C5B(A,H)-025(C,U)-B+TDR+LLS	24,000	13.0	11.9	750	0.059
030K	C5B(A,H)-030(C,U)-A+TDR+LLS	29,000	13.0	11.6	1,000	0.067
030K	C5B(A,H)-030(C,U)-B+TDR+LLS	29,000	13.0	11.6	1,000	0.067
036K	C5B(A,H)-036(C,U)-B+TDR+LLS	35,000	13.0	12.0	1,100	0.075
042K	C5B(A,H)-042(C,U)-B+TDR+LLS	40,000	13.0	12.1	1,400	0.080
048K	C5B(A,H)-048(C,U)-B+TDR+LLS	47,000	13.0	11.6	1,400	0.089
048K	C5B(A,H)-049(C,U)-C+TDR+LLS	47,000	13.0	11.6	1,400	0.089
060K	C5B(A,H)-060(C,U)-C+TDR+LLS	58,000	13.0	11.6	1,650	0.099

Outdoor Unit	Indoor Piston Air Handler B5BM-	Cooling Capacity BTUH	SEER	EER	SCFM	Orifice
018K	024K-A+LLS	18,000	13.0	12.1	600	0.050
018K	025K-A+LLS	18,000	13.0	12.1	600	0.050 (1)
024K	025K-A+LLS	24,000	13.0	11.9	750	0.059
024K	025K-B+LLS	24,000	13.0	11.9	750	0.059
030K	030K-A+LLS	29,000	13.0	11.6	1,000	0.067
030K	030K-B+LLS	29,000	13.0	11.6	1,000	0.067
036K	036K-B+LLS	35,000	13.0	12.0	1,100	0.075
042K	042K-B+LLS	40,000	13.0	12.1	1,400	0.080
048K	048K-C+LLS	47,000	13.0	11.6	1,400	0.089
048K	049K-C+LLS	47,000	13.0	11.6	1,400	0.089
060K	060K-C+LLS	58,000	13.0	11.6	1,650	0.099

Outdoor Unit	Indoor TXV Coil	Cooling Capacity BTUH	SEER	EER	SCFM
018K	C5B(A,H)-T24(U,C)-A+TDR	18,000	13.0	12.1	600
018K	C5B(A,H)-T25(U,C)-A+TDR	18,000	13.0	12.1	600
024K	C5B(A,H)-T25(U,C)-A+TDR	24,000	13.0	11.9	750
024K	C5B(A,H)-T25(U,C)-B+TDR	24,000	13.0	11.9	750
030K	C5B(A,H)-T30(U,C)-A+TDR	29,000	13.0	11.6	1,000
030K	C5B(A,H)-T30(U,C)-B+TDR	29,000	13.0	11.6	1,000
036K	C5B(A,H)-T36(U,C)-B+TDR	35,000	13.0	12.0	1,100
042K	C5B(A,H)-T42(U,C)-B+TDR	40,000	13.0	12.1	1,400
048K	C5B(A,H)-T48(U,C)-B+TDR	47,000	13.0	11.6	1,400
048K	C5B(A,H)-T49(U,C)-C+TDR	47,000	13.0	11.6	1,400
060K	C5B(A,H)-T60(U,C)-C+TDR	58,000	13.0	11.6	1,650

Outdoor Unit	Indoor TXV Air Handler B5BM-	Cooling Capacity BTUH	SEER	EER	SCFM
018K	T24K-A	18,000	13.0	12.1	600
018K	T25K-A	18,000	13.0	12.1	600
024K	T25K-A	24,000	13.0	11.9	750
024K	T25K-B	24,000	13.0	11.9	750
030K	T30K-A	29,000	13.0	11.6	1,000
030K	T30K-B	29,000	13.0	11.6	1,000
036K	T36K-B	35,000	13.0	12.0	1,100
042K	T42K-B	40,000	13.0	12.1	1,400
048K	T48K-C	47,000	13.0	11.6	1,400
048K	T49K-C	47,000	13.0	11.6	1,400
060K	T60K-C	58,000	13.0	11.6	1,650

(1) Field Supplied Piston

LLS = Liquid Line Solenoid

TDR = Time Delay Relay included in furnace and air handler

VSF = Variable Speed Blower

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

See current ARI directory for certified combinations and ratings.

SYSTEM COOLING CAPACITIES (Continued)

14 SEER — High Efficiency — Single Phase

Outdoor Unit	Indoor Piston Coil	Cooling Capacity BTUH	SEER	EER	SCFM	Orifice
018K	C5B(A,H)-024(U,C)-B+TDR+LLS+VSB-B	18,500	14.0	13.7	720	0.050
024K	C5B(A,H)-025(U,C)-B+TDR+LLS+VSB-B	24,400	14.0	13.3	720	0.059
030K	C5B(A,H)-030(U,C)-B+TDR+LLS+VSB-B	29,600	14.0	13.4	960	0.067
036K	C5B(A,H)-036(U,C)-B+TDR+LLS+VSB-B	35,400	14.0	12.9	1,060	0.075
042K	C5B(A,H)-049(U,C)-C+TDR+LLS+VSB-C	40,500	14.0	12.5	1,375	0.080 (1)
048K	C5B(A,H)-049(U,C)-C+TDR+LLS+VSB-C	48,000	14.0	12.1	1,380	0.089
060K	C5B(A,H)-060(U,C)-C+TDR+LLS+VSB-C	58,500	14.0	12.4	1,665	0.099

Outdoor Unit	Indoor Piston Air Handler B5VM-	Cooling Capacity BTUH	SEER	EER	SCFM	Orifice
018K	024K-B+LLS	18,500	14.0	13.7	720	0.050
024K	025K-B+LLS	24,400	14.0	13.3	720	0.059
030K	030K-B+LLS	29,600	14.0	13.4	960	0.067
036K	036K-B+LLS	35,400	14.0	12.9	1,060	0.075
042K	049K-C+LLS	40,500	14.0	12.5	1,375	0.080 (1)
048K	049K-C+LLS	48,000	14.0	12.1	1,380	0.089
060K	060K-C+LLS	58,500	14.0	12.4	1,665	0.099

Outdoor Unit	Indoor Piston Air Handler B5BM-	Cooling Capacity BTUH	SEER	EER	SCFM	Orifice
018K	024K-B+LLS+VSB-B	18,500	14.0	13.7	720	0.050
024K	025K-B+LLS+VSB-B	24,400	14.0	13.3	720	0.059
030K	030K-B+LLS+VSB-B	29,600	14.0	13.4	960	0.067
036K	036K-B+LLS+VSB-B	35,400	14.0	12.9	1,060	0.075
042K	049K-C+LLS+VSB-C	40,500	14.0	12.5	1,375	0.080 (1)
048K	049K-C+LLS+VSB-C	48,000	14.0	12.1	1,380	0.089
060K	060K-C+LLS+VSB-C	58,500	14.0	12.4	1,665	0.099

Outdoor Unit	Indoor TXV Coil	Cooling Capacity BTUH	SEER	EER	SCFM
018K	C5B(A,H)-T24(U,C)-B+TDR+VSB-B	18,500	14.0	13.7	720
024K	C5B(A,H)-T25(U,C)-B+TDR+VSB-B	24,400	14.0	13.3	720
030K	C5B(A,H)-T30(U,C)-B+TDR+VSB-B	29,600	14.0	13.4	960
036K	C5B(A,H)-T36(U,C)-B+TDR+VSB-B	35,400	14.0	12.9	1,060
042K	C5B(A,H)-T49(U,C)-C+TDR+VSB-C	40,500	14.0	12.5	1,375
048K	C5B(A,H)-T49(U,C)-C+TDR+VSB-C	48,000	14.0	12.1	1,380
060K	C5B(A,H)-T60(U,C)-C+TDR+VSB-C	58,500	14.0	12.4	1,665

Outdoor Unit	Indoor TXV Air Handler B5VM-	Cooling Capacity BTUH	SEER	EER	SCFM
018K	T24K-B	18,500	14.0	13.7	720
024K	T25K-B	24,400	14.0	13.3	720
030K	T30K-B	29,600	14.0	13.4	960
036K	T36K-B	35,400	14.0	12.9	1,060
042K	T49K-C	40,500	14.0	12.5	1,375
048K	T49K-C	48,000	14.0	12.1	1,380
060K	T60K-C	58,500	14.0	12.4	1,665

Outdoor Unit	Indoor TXV Air Handler B5BM-	Cooling Capacity BTUH	SEER	EER	SCFM
018K	T24K-B+VSB-B	18,500	14.0	13.7	720
024K	T25K-B+VSB-B	24,400	14.0	13.3	720
030K	T30K-B+VSB-B	29,600	14.0	13.4	960
036K	T36K-B+VSB-B	35,400	14.0	12.9	1,060
042K	T49K-C+VSB-C	40,500	14.0	12.5	1,375
048K	T49K-C+VSB-C	48,000	14.0	12.1	1,380
060K	T60K-C+VSB-C	58,500	14.0	12.4	1,665

(1) Field Supplied Piston

LLS = Liquid Line Solenoid

TDR = Time Delay Relay included in furnace and air handler

VSB = Variable Speed Blower

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

See current ARI directory for certified combinations and ratings.



CERTIFICATION APPLIES ONLY
WHEN THE COMPLETE
SYSTEM IS LISTED
WITH ARI

We Encourage
Professionalism



Through Technician
Certification by NATE

www.tappan.net

O'Fallon, MO

NORDYNE

108C-0207 (Replaces 108C-0406)

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