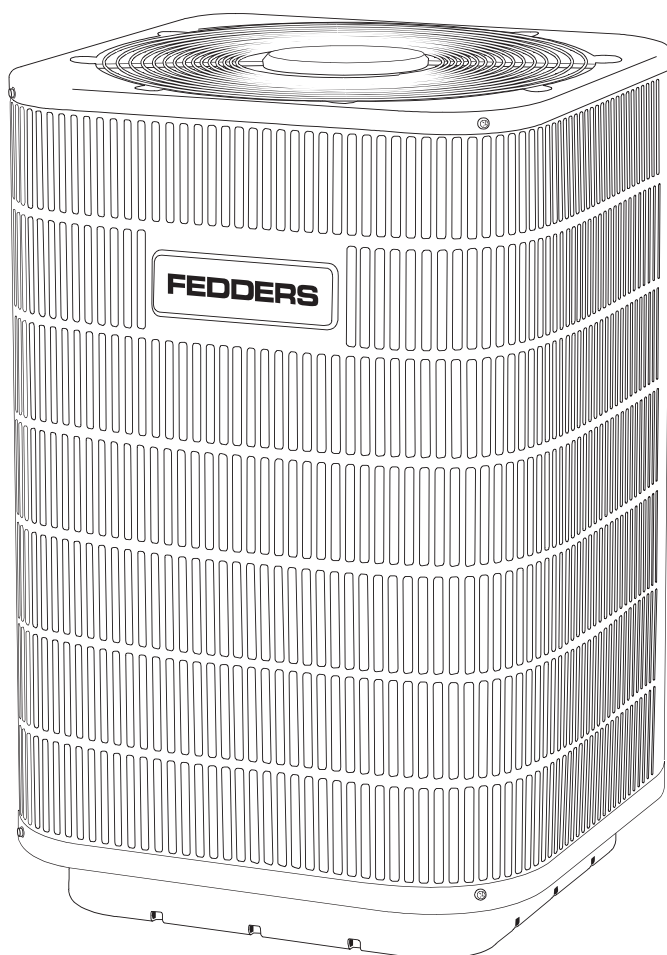


Split System Heat Pump

1 1/2 thru 5 Tons

208/230 Volt, 1-Phase, 60 Hz

**Performance:**

Efficiency rating of 13 SEER

Cooling capacities from 1 1/2 to 5 tons

Refrigerant Circuit:

Factory installed biflow liquid line filter drier

Long life copper tubes, aluminum fins

State-of-the-art compressors

Large, wrap-around coil surface

R410a refrigerant

Quality Built:

Galvanized steel exterior cabinet with 1,000-hour salt spray, powder-coated finish

Powder-coated fan guard

Full louvered panel to protect coil

Formed base with 2 1/2" ground clearance

Limited 5-year warranty on parts

True suction pressure gauge port

Integrated solid state control with adjustable time-temp demand defrost

5-year compressor limited warranty, with an additional 5-years available with timely registration. Some restrictions apply. See the warranty certificate for details.

Easy To Install:

Factory-charged for 15' Lineset

Only three screws to access electrical controls

Easy access to service valves



Rated in Accordance with AHRI Standard 210/240. Certification Applies Only When Used with Proper Components as Listed with AHRI. Additional rating information can be found at www.ahridirectory.org



Model Number	Size (tons)	Refrigerant	Min. Circuit Ampacity	Max. Fuse or Breaker	Operating Dimensions H x W x D (inches)	Min. Mounting Pad Size (inches)	Ship / Operating Weight (lbs)
CH18ABZ1VF	1 1/2	R-410A	13.5	20	26 1/2 X 21 1/2 X 21 1/2	24 x 24	132 / 127
CH24ABZ1VF	2	R-410A	19.8	30	32 1/2 X 21 1/2 X 21 1/2	24 x 24	132 / 127
CH30ABZ1VF	2 1/2	R-410A	21.5	35	32 1/2 X 21 1/2 X 21 1/2	24 x 24	150 / 143
CH36ACZ1VF	3	R-410A	25.1	40	26 1/2 X 29 1/2 X 29 1/2	32 x 32	178 / 170
CH42ACZ1VF	3 1/2	R-410A	26.8	45	32 1/2 X 29 1/2 X 29 1/2	32 x 32	208 / 201
CH48ACZ1VF	4	R-410A	32.3	55	32 1/2 X 29 1/2 X 29 1/2	32 x 32	212 / 203
CH60ACZ1VF	5	R-410A	38.7	60	39 1/2 X 29 1/2 X 29 1/2	32 x 32	258 / 249

Product Specifications

PHYSICAL DATA							
MODEL SIZE	18	24	30	36	42	48	60
PERFORMANCE DATA							
CAPACITY (BTUH)(Cooling)	18,000	24,000	30,000	36,000	42,000	48,000	56,000
CAPACITY (BTUH)(Heating)	17,300	24,000	28,000	34,000	40,000	44,000	56,000
FAN DATA							
FAN MOTOR TYPE	PSC	PSC	PSC	PSC	PSC	PSC	PSC
HP	1/6	1/6	1/3	1/3	1/3	1/3	1/3
DIAMETER	18"	18"	18"	22"	22"	23.6"	23.6"
BLADE	3	3	3	3	3	3	3
RPM	1,050	1,050	1,050	1,020	1,020	970	950
CFM	2,150	2,150	2,200	3,000	3,100	3,250	3,300
OUTDOOR COIL							
TYPE	Enhanced Aluminum Plate Fin / Rifled Copper Tube						
COIL FACE AREA (ft ²)	9.5	12.2	12.2	18.2	18.2	18.2	22.2
O.D.	7mm	7mm	7mm	7mm	7mm	7mm	7mm
FPI -ROWS	18-2	18-2	18-2	18-2	18-2	18-3	18-3
ELECTRICAL DATA (208/230 – 1-60, VOLTAGE RANGE 197V - 253V)							
MINIMUM CIRCUIT AMPACITY - MCA (amps) ¹	13.5	19.8	21.5	25.1	26.8	32.3	38.7
MAXIMUM OVERCURRENT PROTECTIVE DEVICE - MOCP (amps) ²	20	30	35	40	45	55	60
COMPRESSOR RLA (Rated Load Amps)	10.0	15	15.7	18.6	20	24.3	29.4
COMPRESSOR LRA (Locked Rotor Amps)	48	58.3	73	79	112	117	134
FAN MOTOR FLA (Full Load Amps)	1.0	1.0	1.8	1.8	1.8	1.9	1.9
REFRIGERANT CONNECTIONS							
LIQUID LINE CONNECTION SIZE (In. OD)	3/8	3/8	3/8	3/8	3/8	3/8	3/8
SUCTION LINE CONNECTION SIZE (In. OD)	3/4	3/4	3/4	7/8	7/8	7/8	7/8
RECOMMENDED LINE SET LIQUID TUBE DIAMETER (In. OD)	3/8	3/8	3/8	3/8	3/8	3/8	3/8
RECOMMENDED LINE SET SUCTION DIAMETER (In. OD)	3/4	3/4	3/4	7/8	7/8	7/8	7/8
FACTORY CHARGE - OZ.	109.4	137.5	134	151.7	165.8	183.5	190.5

NOTE: Control circuit is 24V on all units and requires external power source. Copper wire must be used from service disconnect to unit. ALL motors/compressors contain internal overload protection.

1. Wire size should be determined in accordance with National Electrical Codes. Extensive wire runs will require larger wire sizes.
2. Time delay fuses may be used in place of HACR circuit breaker.

Product Specifications

AHRI CERTIFIED COMBINATION RATINGS											
UNIT SIZE	OUTDOOR MODEL	INDOOR MODEL	FACTORY SUPPLIED ENHANCEMENT	COOLING			HEATING				
				TOTAL CAPACITY	SEER	EER	HIGH TEMP		LOW TEMP		HSPF
							CAPACITY	COP	CAPACITY	COP	
18	CH18ABZ1VF	ACZ1A024	TXV	18,000	13.0	11.0	17,300	3.42	11,100	2.36	8.2
		AZFPB24A1	TXV, TDR	18,000	13.0	11.0	17,300	3.42	11,100	2.36	8.2
24	CH24ABZ1VF	ACZ1A024	TXV	24,000	13.0	11.0	24,000	3.42	15,000	2.20	8.2
		AZFPB24A1	TXV, TDR	24,000	13.0	11.0	24,000	3.42	15,000	2.20	8.2
30	CH30ABZ1VF	ACZ1A036	TXV	30,000	13.0	11.0	28,000	3.50	18,200	2.30	8.2
		AZFPB36A1	TXV, TDR	30,000	13.0	11.0	28,000	3.50	18,200	2.30	8.2
36	CH36ACZ1VF	ACZ1A036	TXV	36,000	13.0	11.0	34,000	3.50	22,000	2.50	8.2
		AZFPB36A1	TXV, TDR	36,000	13.0	11.0	34,000	3.50	22,000	2.50	8.2
42	CH42ACZ1VF	ACZ1A048	TXV	42,000	13.0	11.0	40,000	3.42	23,000	2.30	8.2
		AZFPC48A1	TXV, TDR	42,000	13.0	11.0	40,000	3.42	23,000	2.30	8.2
48	CH48ACZ1VF	ACZ1A048	TXV	48,000	13.0	11.0	44,000	3.42	28,500	2.50	8.0
		AZFPC48A1	TXV, TDR	48,000	13.0	11.0	44,000	3.42	28,500	2.50	8.0
60	CH60ACZ1VF	ACZ1A060	TXV	56,000	13.0	11.0	56,000	3.42	38,000	2.30	8.2
		AZFPC60B1	TXV, TDR	56,000	13.0	11.0	56,000	3.42	38,000	2.30	8.2

SEER – Seasonal Energy Efficiency Ratio

COP – Coefficient of Performance

TDR – Time – Delay Relay

HSPF – Heating Seasonal Performance Factor

EER – Energy Efficiency Ratio

NOTES:

1. Tested combination per AHRI 210/240 standard. Fedders air handlers contain the TDR as standard equipment.

2. Supplemental electric heat is not included.

3. Ratings are based on:

Cooling Standard: 80°F (27°C) db 67°F (19°C) wb indoor entering air temperature and 95°F (35°C) db air entering outdoor unit.

High – Temp Heating Standard: 70°F (21°C) db indoor entering air temperature and 47°F (8°C)db 43°F (6°C) wb air entering outdoor unit.

Low – Temp Heating Standard: 70°F (21°C) db indoor entering air temperature and 17°F (-9°C)db 15°F (-10°C) wb air entering outdoor unit.

Split System Heat Pump

LINE SET LENGTH AND SIZE

BTUH	SUCTION LINE SIZES				LIQUID LINE SIZES			
	15 ft.	25 ft.	50 ft.	75 ft.	15 ft.	25 ft.	50 ft.	75 ft.
18	3/4	3/4	3/4	3/4	3/8	3/8	3/8	3/8
24	3/4	3/4	3/4	3/4	3/8	3/8	3/8	3/8
30	3/4	7/8	7/8	7/8	3/8	3/8	3/8	3/8
36	3/4	7/8	7/8	7/8	3/8	3/8	3/8	3/8
42	7/8	7/8	7/8	7/8	3/8	3/8	3/8	3/8
48	7/8	7/8	7/8	7/8	3/8	3/8	3/8	3/8
60	1 1/8	1 1/8	1 1/8	1 1/8	3/8	3/8	3/8	3/8

Recommended liquid & suction tube line size is for standard installations. The unit charge is correct for the outdoor unit, matched indoor coil and 15 feet of refrigerant tubing. For tubing length other than 15 feet, add or subtract the amount of refrigerant, using the difference in length multiplied by the per foot value. These recommendations do not apply to Long Line Length Installations that exceed 75 feet or where there is more than 40 feet vertical separation between indoor and outdoor units. (Lengths in excess of 75 feet or more than 40 feet vertical separation are not recommended.)
 Note: See unit installation instructions for proper installation.

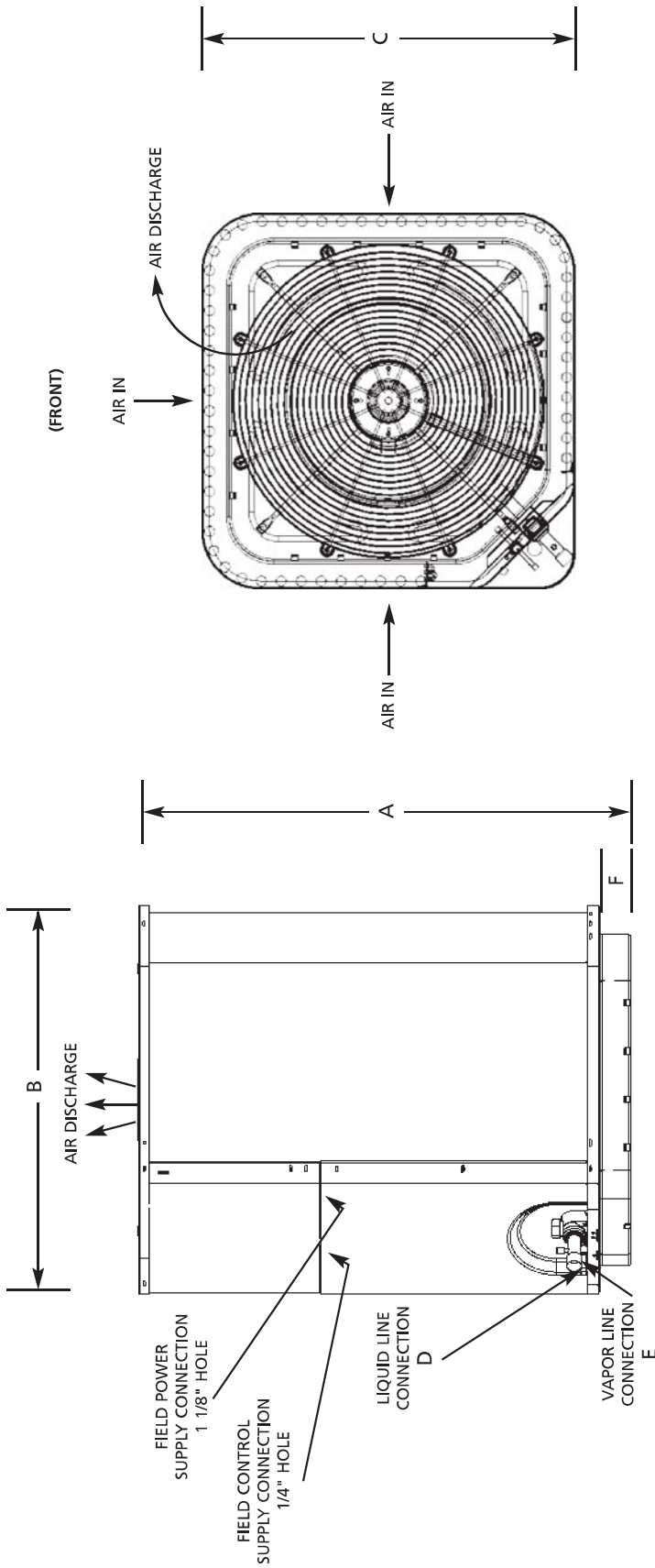
COOLING PERFORMANCE DATA

OUTDOOR UNIT MODEL	AIR HANDLER	RATINGS AT STANDARD CONDITIONS			COOLING DATA AT EXTENDED OUTDOOR AMBIENTS F.M.B.T.U.H.								
		BTUH	SEER*	CFM		80	85	90	95	100	105	110	115
CH18ABZ1VF	AZFPB24A1	18,000	13	650	TOTAL	19,459	18,960	18,467	18,000	17,604	17,245	16,632	15,980
					SENSIBLE	14,462	14,218	13,984	13,669	13,469	13,225	12,744	12,228
CH24ABZ1VF	AZFPB24A1	24,000	13	840	TOTAL	25,946	25,280	24,662	24,000	23,472	22,994	22,176	21,307
					SENSIBLE	19,283	18,956	18,646	18,225	17,960	17,633	16,992	16,304
CH30ABZ1VF	AZFPB36A1	30,000	13	1,000	TOTAL	32,433	31,600	30,778	30,000	29,341	28,742	27,721	26,634
					SENSIBLE	24,104	23,696	23,307	22,783	22,450	22,042	21,241	20,381
CH36ACZ1VF	AZFPB36A1	36,000	13	1,100	TOTAL	39,147	38,132	37,135	36,000	34,937	33,808	32,607	31,328
					SENSIBLE	28,652	28,252	27,930	27,450	27,087	26,587	26,085	25,513
CH42ACZ1VF	AZFPC48A1	42,000	13	1,350	TOTAL	45,716	44,775	43,624	42,000	40,897	39,146	38,179	36,745
					SENSIBLE	33,576	33,143	32,727	31,760	31,395	31,046	30,289	29,765
CH48ACZ1VF	AZFPC48A1	48,000	13	1,550	TOTAL	51,866	50,400	49,199	48,000	47,066	45,866	44,666	43,732
					SENSIBLE	39,439	38,663	37,757	36,723	36,335	35,689	34,913	34,266
CH60ACZ1VF	AZFPC60B1	56,000	13	1,750	TOTAL	60,510	58,800	57,399	56,000	54,911	53,510	52,111	51,021
					SENSIBLE	45,697	44,797	43,749	42,551	42,101	41,351	40,453	39,704

*TDR required to obtain SEER rating.

Split System Heat Pump

DIMENSIONS



DIMENSIONS IN INCHES

MODELS	ALL DIMENSIONS						RECOMMENDED MINIMUM MOUNTING PAD SIZE	SHIPPING DIMENSIONS H X W X D
	A (Height)	B (Width)	C (Length)	D	E	F		
CH18ABZ1VF	26 1/2	21 1/2	21 1/2	3/8	3/4	2 1/2	24x24	27x23x23
CH24ABZ1VF	32 1/2	21 1/2	21 1/2	3/8	3/4	2 1/2	24x24	33x23x23
CH30ABZ1VF	32 1/2	21 1/2	21 1/2	3/8	3/4	2 1/2	24x24	33x23x23
CH36ACZ1VF	26 1/2	29 1/2	29 1/2	3/8	7/8	2 1/2	32x32	27x31x31
CH42ACZ1VF	32 1/2	29 1/2	29 1/2	3/8	7/8	2 1/2	32x32	33x31x31
CH48ACZ1VF	32 1/2	29 1/2	29 1/2	3/8	7/8	2 1/2	32x32	33x31x31
CH60ACZ1VF	39 1/2	29 1/2	29 1/2	3/8	7/8	2 1/2	32x32	40x31x31

Split System Heat Pump

Residential & Light Commercial 13 SEER Split System Model Number Identification

CH 24 A B Z 1 V F

Product Type

C = Air Conditioner
CH = Heat Pump

Nominal Capacity

18 = 18,000 BTUH [5.28 kW]
24 = 24,000 BTUH [7.03 kW]
30 = 30,000 BTUH [8.79 kW]
36 = 36,000 BTUH [10.55 kW]
42 = 42,000 BTUH [12.31 kW]
48 = 48,000 BTUH [14.07 kW]
60 = 60,000 BTUH [17.58 kW]

Series

Chassis Size

B = 21 1/2" W x 21 1/2" D x H - Determined by BTU Size
C = 29 1/2" W x 29 1/2" D x H - Determined by BTU Size

Brand

Fitting Type

V = Sweat

Electrical Designation

1 = 208 / 230 Volts, 1 Phase, 60 Hz
2 = 230 Volts, 1 Phase, 50 Hz
3 = 208 / 230 Volts, 3 Phase, 60 Hz
4 = 460 Volts, 3 Phase, 60 Hz
5 = 230 Volts, 3 Phase, 50 Hz
6 = 380 Volts, 3 Phase, 50 Hz

Refrigerant Variations

D = R-22 Refrigerant
Z = R-410A Refrigerant