

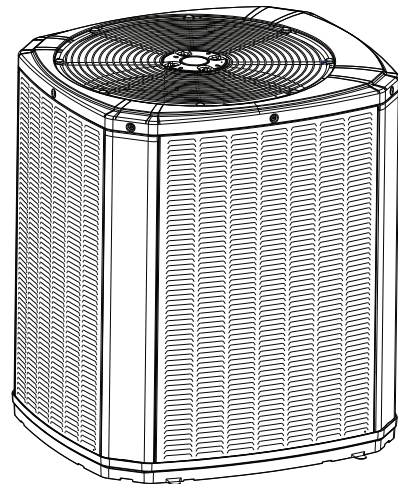


Product Data

TRANE Multi-Speed Heat Pumps and Air Conditioners

5TWR7024A1000A
5TWR7036A1000A
5TWR7048A1000A
5TWR7060A1000A

5TTR7024A1000A
5TTR7036A1000A
5TTR7048A1000A
5TTR7060A1000A



Note: "Graphics in this document are for representation only. Actual model may differ in appearance."



Product Specifications

Heat Pump Models

OUTDOOR UNIT (a) (b)	5TWR7024A	5TWR7036A	5TWR7048A	5TWR7060A
POWER CONNS. – V/PH/HZ (c)	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60
MIN. BRCH. CIR. AMPACITY	18	29	33	39
BR. CIR. PROT. RTG - REC/MAX (AMPS)	20/30	30/40	35/50	40/60
COMPRESSOR	SCROLL	SCROLL	SCROLL	SCROLL
NO. USED – NO. SPEEDS	1–MULTI	1–MULTI	1–MULTI	1–MULTI
MRC	17.8	27.1	39.2	46.1
FACTORY INSTALLED				
START COMPONENTS (d)	N/A	N/A	N/A	N/A
INSULATION/SOUND BLANKET	NO	NO	NO	NO
COMPRESSOR HEAT	YES	YES	YES	YES
OUTDOOR FAN				
DIA. (in.) – NO. USED	23 – 1	23 – 1	27.5 – 1	27.5 – 1
TYPE DRIVE – NO. SPEEDS	DIRECT – VARIABLE	DIRECT – VARIABLE	DIRECT – VARIABLE	DIRECT – VARIABLE
NO. MOTORS – HP	1 – 1/3	1 – 1/3	1 – 1/2	1 – 1/2
SPEED (RPM)	600-1050	600-1050	600-1050	600-1050
Volts/Ph/Hz	245–385/3/60	245–385/3/60	245–385/3/60	245–385/3/60
Full Load Amps	1.5	1.5	2.3	2.3
OUTDOOR COIL – TYPE	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™
ROWS – F.P.I.	1 – 24	1 – 24	1 – 24	1 – 24
FACE AREA (Sq. Ft.)	23.75	23.75	27.87	27.87
TUBE SIZE (in.)	3/8	3/8	3/8	3/8
REFRIGERANT	R-454B	R-454B	R-454B	R-454B
LBS. – R-454B (O.D. UNIT) (e)	4 lb – 0 oz	4 lb – 4 oz	6 lb – 0 oz	6 lb – 0 oz
FACTORY SUPPLIED	YES	YES	YES	YES
RATED LINE SIZE – IN. O.D. GAS (in.) ^(f)	3/4	3/4	7/8	7/8
RATED LINE SIZE – IN. O.D. LIQ. (in.) ^(f)	5/16	5/16	5/16	3/8
CHARGING SPECIFICATIONS				
SUBCOOLING	10° F	12° F	12° F	10° F
DIMENSIONS	H × W × D	H × W × D	H × W × D	H × W × D
CRATED (in.)	46 × 30 × 33	46 × 30 × 33	46 × 35 × 38	46 × 35 × 38
WEIGHT				
SHIPPING (Lbs.)	213	213	254	254
NET (Lbs.)	194	194	231	231

(a) Certified in accordance with the Air-Source Unitary Air-conditioner Equipment certification program, which is based on AHRI standard 210/240.

(b) Rated in accordance with AHRI standard 270/275.

(c) Calculated in accordance with Natl. Elec. Codes. Use only HACR circuit breakers or fuses.

(d) NA means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter.

(e) This value approximate. For more precise value see unit nameplate.

(f) The maximum length of refrigerant lines from outdoor to indoor varies depending on application. See Installer's Guide Table 4 for allowable applications.

Air Conditioner Models

OUTDOOR UNIT (a) (b)	5TTR7024A	5TTR7036A	5TTR7048A	5TTR7060A
POWER CONNS. – V/PH/Hz (c)	208/230/1/60	208/230/1/60	208/230/1/60	208/230/1/60
MIN. BRCH. CIR. AMPACITY	18	29	33	39
BR. CIR. PROT. RTG - REC/MAX (AMPS)	20/30	30/40	35/50	40/60
COMPRESSOR	SCROLL	SCROLL	SCROLL	SCROLL
NO. USED – NO. SPEEDS	1–MULTI	1–MULTI	1–MULTI	1–MULTI
MRC	17.8	27.1	39.2	46.1
FACTORY INSTALLED				
START COMPONENTS (d)	N/A	N/A	N/A	N/A
INSULATION/SOUND BLANKET	NO	NO	NO	NO
COMPRESSOR HEAT	YES	YES	YES	YES
OUTDOOR FAN				
DIA. (in.) – NO. USED	23 – 1	23 – 1	27.5 – 1	27.5 – 1
TYPE DRIVE – NO. SPEEDS	DIRECT – VARIABLE	DIRECT – VARIABLE	DIRECT – VARIABLE	DIRECT – VARIABLE
NO. MOTORS – HP	1 – 1/3	1 – 1/3	1 – 1/2	1 – 1/2
SPEED (RPM)	600-1050	600-1050	600-1050	600-1050
Volts/Ph/Hz	245–385/3/60	245–385/3/60	245–385/3/60	245–385/3/60
Full Load Amps	1.5	1.5	2.3	2.3
OUTDOOR COIL – TYPE	SPINE FIN™	SPINE FIN™	SPINE FIN™	SPINE FIN™
ROWS – F.P.I.	1 – 24	1 – 24	1 – 24	1 – 24
FACE AREA (Sq. Ft.)	23.75	23.75	27.87	27.87
TUBE SIZE (in.)	3/8	3/8	3/8	3/8
REFRIGERANT	R-454B	R-454B	R-454B	R-454B
LBS. – R-454B (O.D. UNIT) (e)	4 lb – 0 oz	4 lb – 4 oz	6 lb – 0 oz	6 lb – 0 oz
FACTORY SUPPLIED	YES	YES	YES	YES
RATED LINE SIZE – IN. O.D. GAS (in.) ^(f)	3/4	3/4	7/8	7/8
RATED LINE SIZE – IN. O.D. LIQ. (in.) ^(f)	5/16	5/16	5/16	3/8
CHARGING SPECIFICATIONS				
SUBCOOLING	10° F	12° F	12° F	10° F
DIMENSIONS	H × W × D	H × W × D	H × W × D	H × W × D
CRATED (in.)	46 × 30 × 33	46 × 30 × 33	46 × 35 × 38	46 × 35 × 38
WEIGHT				
SHIPPING (Lbs.)	213	213	254	254
NET (Lbs.)	194	194	231	231

(a) Certified in accordance with the Air-Source Unitary Air-conditioner Equipment certification program, which is based on AHRI standard 210/240.

(b) Rated in accordance with AHRI standard 270/275.

(c) Calculated in accordance with Natl. Elec. Codes. Use only HACR circuit breakers or fuses.

(d) NA means no start components. Yes means quick start kit components. PTC means positive temperature coefficient starter.

(e) This value approximate. For more precise value see unit nameplate.

(f) The maximum length of refrigerant lines from outdoor to indoor varies depending on application. See Installer's Guide Table 4 for allowable applications.



Sound Data

Model	Mode	Speed	A-Weighted Sound Power Level [dB(A)]	Full Octave Sound Power [dB]							
				63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
5TWR7024A	Cool	Min	63	57.7	59.1	56.8	59.4	59.5	53.6	45.1	43.8
	Cool	Max	71	59.1	70.4	63.7	65.5	68.4	63.4	53.2	49.7
	Heat	Min	69	56.7	60.7	58.1	62.8	66.1	60.9	51.7	49.0
	Heat	Max	73	76.0	74.8	68.0	68.1	69.7	64.5	56.6	55.1
5TWR7036A	Cool	Min	67	69.5	58.8	56.2	60.1	59.5	63.5	46.1	47.4
	Cool	Max	72	76.0	69.1	64.5	67.1	69.7	63.6	53.6	52.6
	Heat	Min	72	87.4	71.1	66.5	68.6	68.5	61.7	52.8	52.6
	Heat	Max	75	76.0	73.8	67.6	70.9	71.4	65.0	56.1	53.6
5TWR7048A	Cool	Min	70	69.5	71.0	66.2	70.1	64.1	57.7	55.7	48.8
	Cool	Max	75	76.0	79.8	75.0	74.3	69.1	63.0	61.3	53.7
	Heat	Min	72	87.4	72.3	72.3	69.2	67.2	61.2	60.2	52.5
	Heat	Max	75	76.0	79.8	75.0	74.3	69.1	63.0	61.3	53.7
5TWR7060A	Cool	Min	70	69.5	71.0	66.2	70.1	64.1	57.7	55.7	48.8
	Cool	Max	75	76.0	79.8	75.0	74.3	69.1	63.0	61.3	53.7
	Heat	Min	72	87.4	72.3	72.3	69.2	67.2	61.2	60.2	52.5
	Heat	Max	75	76.0	79.8	75.0	74.3	69.1	63.0	61.3	53.7

Note: Rated in accordance with AHRI Standard 270.

Model	Mode	Speed	A-Weighted Sound Power Level [dB(A)]	Full Octave Sound Power [dB]							
				63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
5TTR7024A	Cool	Min	63	57.7	59.1	56.8	59.4	59.5	53.6	45.1	43.8
	Cool	Max	71	49.1	70.4	63.7	65.5	68.4	63.4	53.2	49.7
5TTR7036A	Cool	Min	67	69.5	58.8	56.2	60.1	59.5	63.5	46.1	47.4
	Cool	Max	72	76.0	69.1	64.5	67.1	69.7	63.6	53.6	52.6
5TTR7048A	Cool	Min	70	69.5	71.0	66.2	70.1	64.1	57.7	55.7	48.8
	Cool	Max	75	76.0	79.8	75.0	74.3	69.1	63.0	61.3	53.7
5TTR7060A	Cool	Min	70	69.5	71.0	66.2	70.1	64.1	57.7	55.7	48.8
	Cool	Max	75	76.0	79.8	75.0	74.3	69.1	63.0	61.3	53.7

Note: Rated in accordance with AHRI Standard 270.



Optional Accessories:

Rubber Isolator Kit	BAYISLT101
Snow Leg — Base and Cap 4 in. High	BAYLEGS002
Snow Leg — 4 in. Extension	BAYLEGS003
Extreme Condition Mounting Kit	BAYECMT023
Refrigerant Lineset ^(a)	

^(a) 25, 30, 35, and 50 foot linesets available. For a complete listing of lineset options available from equipment or supply stores, refer to the Trane Residential and Light Commercial Product Handbook.

General Data

AHRI STANDARD 210/240 RATING CONDITIONS

- Cooling 80° F DB, 67° F WB air entering indoor coil, 95° F DB air entering outdoor coil.
- High Temperature Heating 47° F DB, 43° F WB air entering outdoor coil, 70° F DB entering indoor coil.
- Low Temperature Heating 17° F DB, 15° F WB air entering outdoor coil, 70° F DB air entering indoor coil.
- Rated indoor airflow for heating is the same as for cooling.

AHRI STANDARD 270 RATING CONDITIONS — (Noise rating numbers are determined with the unit in cooling operation) Standard Noise Rating number is at 95° F outdoor air.



Model Nomenclature

Outdoor Units

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
 5 T T R 7 0 3 6 A 1 0 0 0 A A

Refrigerant Type

- 2 = R-22
- 5 = R-454B

TRANE

Product Type

- W = Split Heat Pump
- T = Split Cooling

Product Family

- V = Variable Speed
- Z = Leadership – Two Stage
- X = Leadership
- R = Replacement/Retail
- M or B = Basic
- A = Light Commercial

Family SEER

- 3 = 13 6 = 16 9 = 19
- 4 = 14 7 = 17 0 = 20
- 5 = 15 8 = 18

Split System Connections 1-6 Tons

- 0 = Brazed

Nominal Capacity in 000s of BTUs

Major Design Modifications

Power Supply

- 1 = 200-230/1/60 or 208-230/1/60
- 3 = 200-230/3/60
- 4 = 460/3/60

Secondary Function

Minor Design Modifications

Unit Parts Identifier

Wiring Diagram

LEGEND

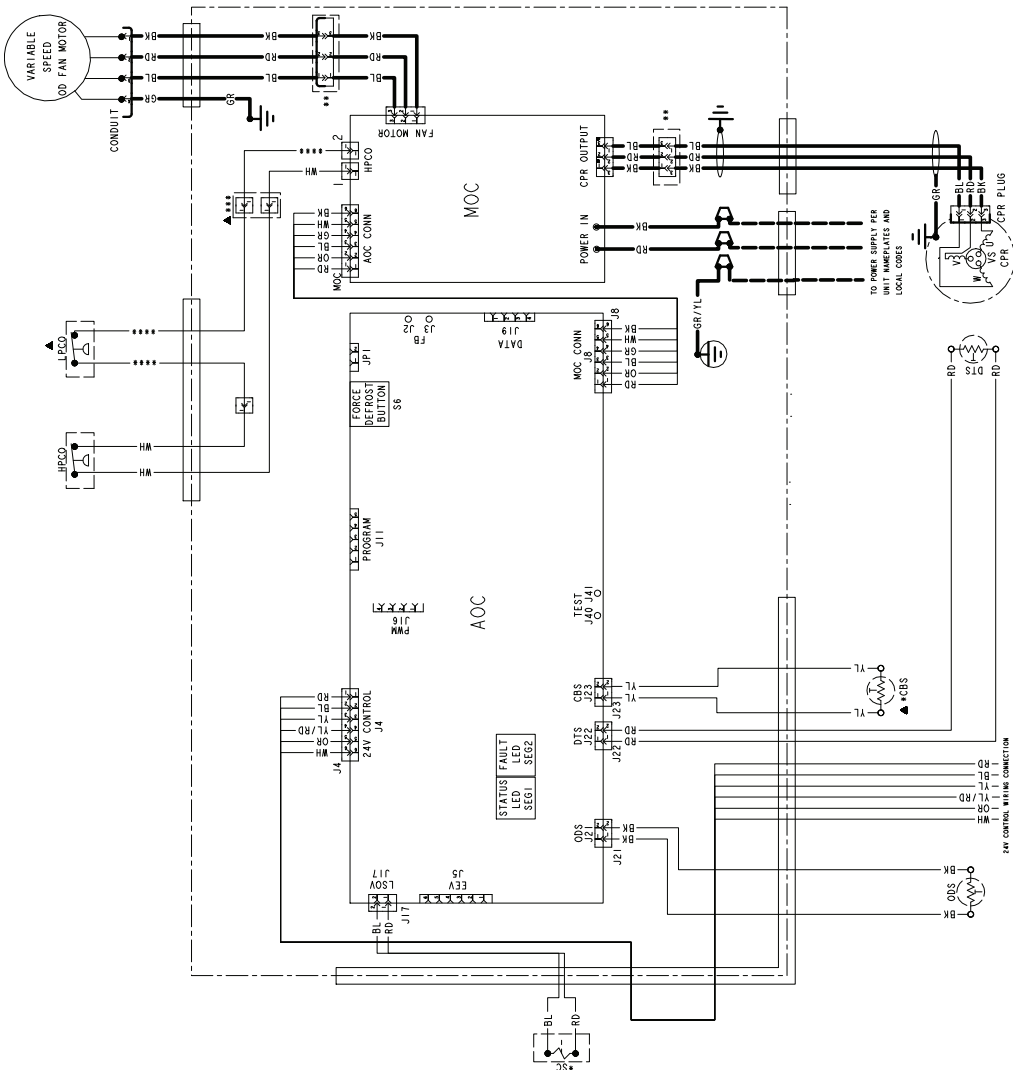
- | | |
|--------|------------------------------|
| 24 V V | FACTORY |
| LINE V | FIELD |
| --- | DIS WIRING |
| ⋈ | MAGNETIC COIL |
| ⊕ | EARTH GROUND |
| ⊕ | PROTECTIVE EARTH GROUND |
| • | JUNCTION |
| • | WIRE NUT OR TERMINAL |
| ⊖ | THEMISTOR |
| ⊖ | INTERNAL OVERLOAD PROTECTION |
| ⊖ | PRESSURE ACTUATED SWITCH |
| ⊖ | RESISTOR OR HEATING ELEMENT |
| ⊖ | MOTOR WINDING |
| ⊖ | SHIELDED CABLE |
| ⊖ | OPTIONAL |
-
- | | |
|-------|--|
| 3 3 3 | POL-PLUG FEMALE HOUSING (MALE TERMINALS) |
| 3 3 3 | POL-PLUG FEMALE HOUSING (FEMALE TERMINALS) |
| BK/BL | COLOR OF WIRE |
| BK | BLACK |
| RD | RED |
| OR | ORANGE |
| GR | GREEN |
| BL | BLUE |
| WH | WHITE |
| YL | YELLOW |
| PK | PINK |
| DR | DRUM |
-
- | | |
|------|--------------------------------------|
| CS | COIL BOTTOM SENSOR |
| VS | VARIABLE SPEED COMPRESSOR |
| EVV | ELECTRONIC EXP VALVE |
| HPDO | HIGH PRESSURE CUTOFF SWITCH |
| LPDO | LOW PRESSURE CUTOFF SWITCH |
| OS | OUTDOOR TEMPERATURE SENSOR |
| LSO | LOAD SENSING |
| PMW | PULSE WIDTH MODULATED COMM |
| DTS | DISCHARGE TEMPERATURE SENSOR |
| PCS | PERMANENT SPLIT CAPACITOR MOTOR COMM |
| CS | CHARGE SOLENOID |
| LS | LOAD SHED |
| AOC | APPLICATION ORIENTED CONTROL |
| MOC | MODULAR CONTROL |
| FB | FORCE BOOST PINS |
| TEST | TEST PINS |

NOTES:

- BE SURE POWER SUPPLY AGREES WITH EQUIPMENT MAKEPLATE.
- POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH LOCAL CODES.
- LOW VOLTAGE WIRING TO BE NO. 18 AWG MINIMUM CONDUCTOR.
- ONLY USED ON HEAT PUMP MODELS AND NOT ON AC UNITS.
- IF THE UNIT IS TO BE USED IN A HEAT PUMP MODE, THE HPDO AND LPDO FERRITE HARNESS IF REQUIRED IN ABSENCE OF FERRITE, THE LEADS FROM LPDO CONNECT DIRECTLY TO MOC-FERRITE PINS. IF FERRITE IS INSTALLED, BOTH WIRES CONNECTING TO THE MOC-FERRITE PINS WILL BE WHITE.
- ***COOLING ONLY UNITS CONTAIN RED LPDO WIRES. HEAT PUMPS HAVE ONE YELLOW WIRE AND ONE ORANGE/YELLOW WIRE.

CAUTION
 USE COPPER CONDUCTORS ONLY!
 UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS. ONLY USE THE PUMP TO THE EQUIPMENT.
 FCC LABEL - SEE NOTE

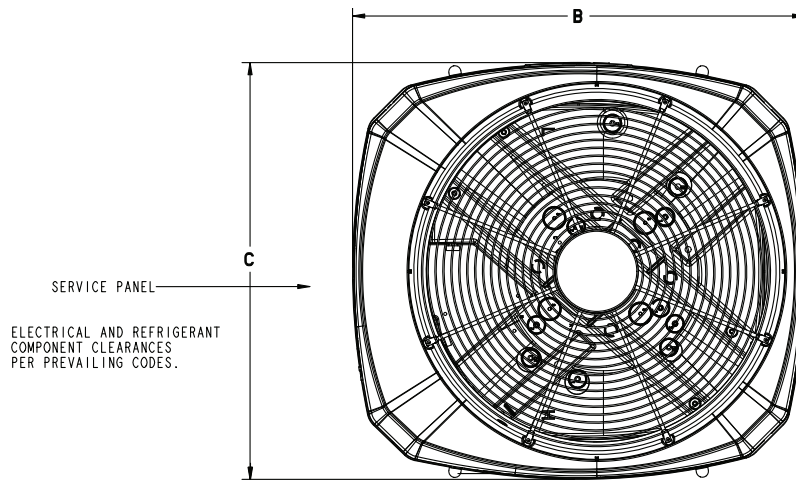
WARNING
 HAZARDOUS VOLTAGE!
 DISCONNECT ALL ELECTRICAL POWER BEFORE SERVICING.
 Failure to disconnect power may result in severe personal injury or death.



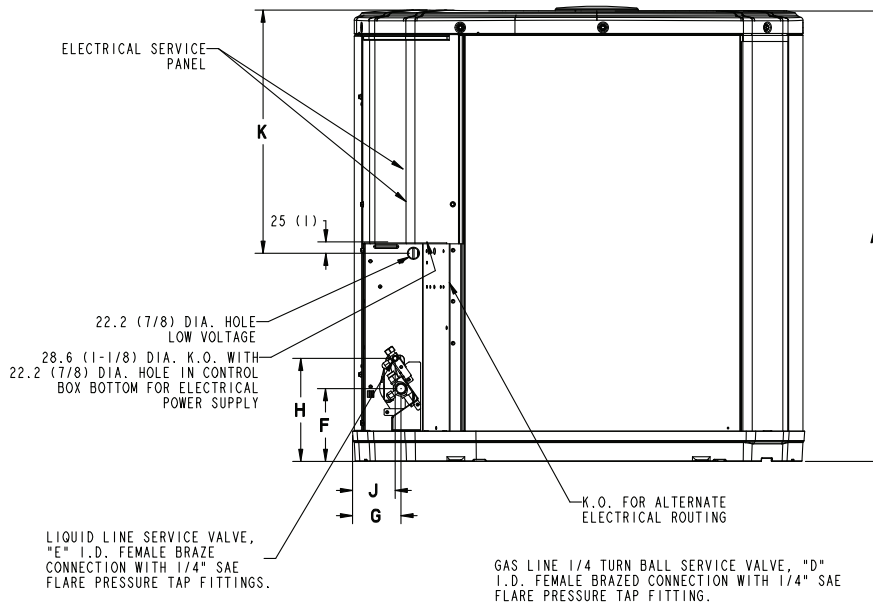
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Outline Drawing



TOP DISCHARGE AREA SHOULD BE UNRESTRICTED FOR AT LEAST 1524 (5 FEET) ABOVE UNIT. UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT, AND SHOULD BE AT LEAST 305 (12") FROM WALL AND ALL SURROUNDING SHRUBBERY ON TWO SIDES. OTHER TWO SIDES UNRESTRICTED.



Model	Base	A	B	C	D	E	F	G	H	J	K
5TTR7024A/ 5TWR7024A	3	1035 (40-3/4)	829 (32-5/8)	756 (29-3/4)	16-5/8	8-5/16	127 (5)	76 (3)	197 (7-3/4)	57 (2-1/4)	813 (32)
5TTR7036A/ 5TWR7036A	3	1035 (40-3/4)	829 (32-5/8)	756 (29-3/4)	16-5/8	8-5/16	127 (5)	76 (3)	197 (7-3/4)	57 (2-1/4)	813 (32)
5TTR7048A/ 5TWR7048A	4	1035 (40-3/4)	946 (37-1/4)	870 (34-1/4)	19-3/4	8-5/16	127 (5)	76 (3)	197 (7-3/4)	57 (2-1/4)	813 (32)
5TTR7060A/ 5TWR7060A	4	1035 (40-3/4)	946 (37-1/4)	870 (34-1/4)	19-3/4	8-5/16	127 (5)	76 (3)	197 (7-3/4)	57 (2-1/4)	813 (32)



Mechanical Specification Options

General

This unit is designed to operate at outdoor ambient temperatures from 55° F to 120° F in cooling. From -0° F to 66° F in heating (heat pumps only). Only AHRI approved indoor matches are approved for use with these models.

Casing

Unit casing is constructed of heavy gauge. G60 galvanized steel and painted with a weather-resistant powder paint on all louvered panels and prepaint on all other panels. Corrosion and weatherproof CMBP-G30 DuraTuff™ base.

Refrigerant Controls

Refrigeration system controls include condenser fan, compressor inverter drive, and high and low pressure switches. A factory supplied, field installed filter is standard.

Compressor

Inverter driven compressor with variable output capacities. Compressor protections reduce operating speed and current draw to maintain operation while protecting the compressor.

Condenser Coil

The Spine Fin™ outdoor coil provides low airflow resistance and efficient heat transfer. The coil is protected on all four sides by louvered panels.

Low Ambient Cooling

As manufactured, this system has built in freeze protection that will allow cooling operation below 55° F but will reduce capacity or shutdown completely to prevent operation under adverse conditions.



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