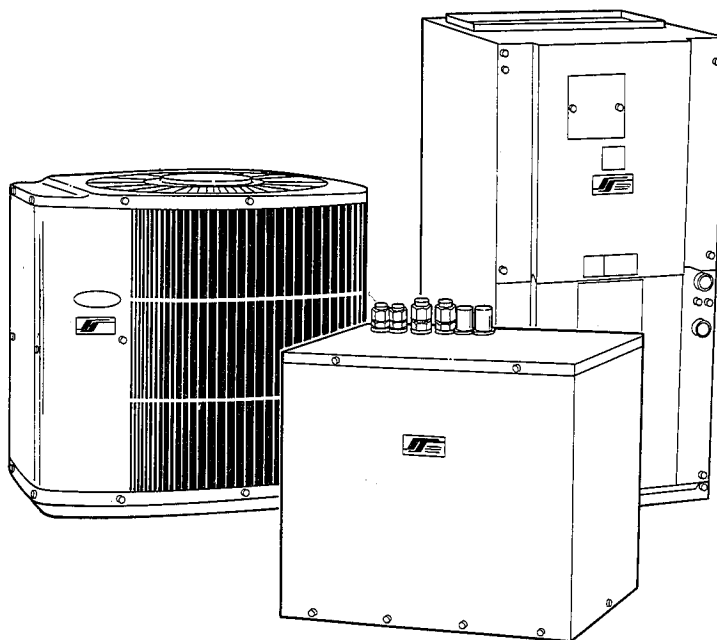




Advance Product Data

Advanced Technology Heat Pump System 38QE/40QE

Heating Capacities: 24,000—36,000 Btuh
Cooling Capacities: 24,000—36,000 Btuh



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FEATURES

ECM VARIABLE SPEED—Electronically commutated motors for the compressor and indoor fan provide the most advanced technology for variable capacity control, the heat pump never over works, giving optimum efficiency and comfort, HSPF up to 9.2, SEER of almost 15.

INTEGRATED WATER HEATING—Further savings are provided by the heat pump producing hot water for household use whenever it has excess heat to reject. That includes turning on just to heat water. This is accomplished with additional built-in controls, and all copper tube-in-tube heat exchanger, and a non-corrosive water pump-safe for potable water use.

MICROCOMPUTER CONTROLLED—Microprocessors within the indoor and compressor section communicate with the electronic thermostat to continuously tune the heat pump for comfortable and efficient performance. Proper equipment operation is also monitored with many automatic service diagnostics if there is a malfunction.

QUIET OPERATION—Outdoor section sound ratings are at exceptionally quiet levels of 6.9 BELS or less. Low operating speeds and cabinet insulation contribute to reduced noise from the indoor and compressor sections. The compressor is further shielded with its own two-layer sound barrier.

TOTAL COMFORT SYSTEM—The thermostat features precise temperature control plus user adjustable heating

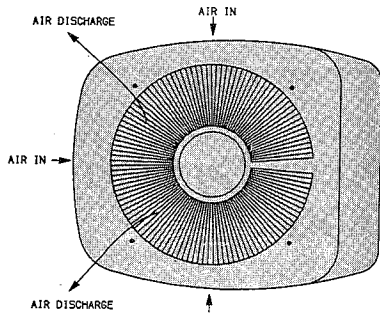
set-back and cooling set-up. Special built-in system operation for dehumidification, humidification, and electronic air cleaning can be activated with optional accessories.

MULTIZONE VERSATILITY—Home-zone lets you choose different temperatures to suit different areas of your house. Up to four zones can be created with the optional zone thermostats and electronically controlled dampers.

DEMAND LIMIT INTERFACE—Where applicable, the homeowner can participate in incentive programs offered by utilities for peak load control. When signalled, the intelligent equipment controls can reduce power demand while still maintaining home comfort.

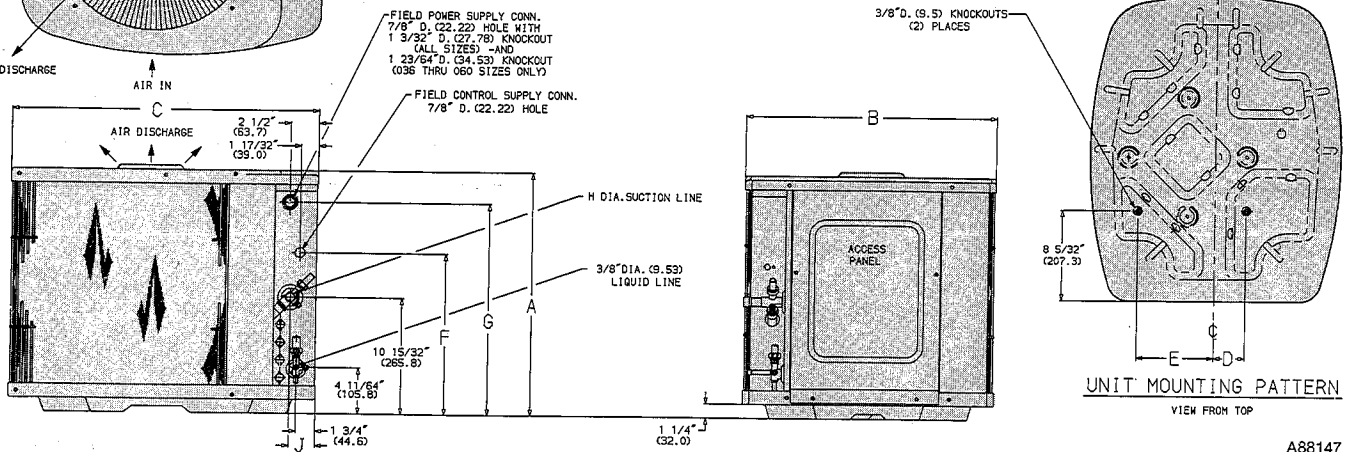
RELIABILITY BY DESIGN—Checks and balances in the design and production process ensure that quality performance is built into every unit. Included are standard protection features such as low and high pressure switches, high temperature switches, accumulator and crankcase heater. If service is needed, logical layout of access panels and components provides easy serviceability.

UNIQUE DEFROST—An extra circuit through the tube-in-tube-heat exchanger provides a water-source defrost. The high temperature storage in the home's hot water tank is used as the heat source of a reverse cycle, hot gas defrost. The conventional shift to making cold air in the indoor fancoil is eliminated. In addition, demand type defrost control provides defrost when, and only when, it is required.



NOTES:

1. Allow two and one half feet (762) clearance to service end of unit, four feet (1219) above unit, six inches on one side (152), one foot (305) on remaining side and two feet (610) between units for proper airflow.
2. Dimensions in parentheses are in millimeters.



Dimensions

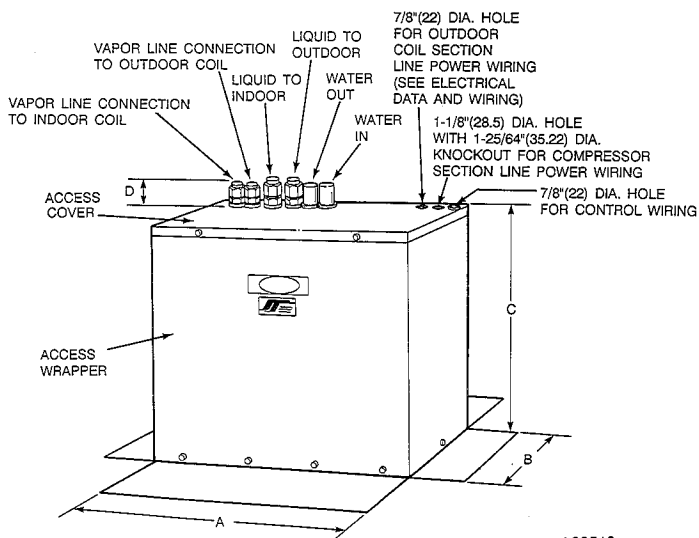
Outdoor Coil

UNIT SIZE*	A		B		C		D		E		F		G		H		J		K	
	(FT./IN.)	(mm)	(FT./IN.)	(mm)	(FT./IN.)	(mm)	(IN.)	(mm)	(IN.)	(mm)	(FT./IN.)	(mm)	(FT./IN.)	(mm)	(IN.)	(mm)	(IN.)	(mm)	(IN.)	(mm)
38QE924	2'-7"	808.8	2'-6"	762.0	2'-10-7/8"	886.7	4"	101.3	9-3/4"	247.2	1'-9-7/16"	544.8	2'-3-7/8"	707.8	3/4	19.05	2-7/8"	73.7	8-3/16"	207.3
38QE936	2'-7"	808.8	3'-2-9/16"	979.9	3'-9"	1143.0	5-15/16"	150.8	11-13/16"	299.3	1'-9-7/16"	544.8	2'-3-7/8"	707.8	3/4	19.05	2-7/8"	73.7	8-9/16"	216.8

*All units are -300 Series.

NOTES:

1. Allow two feet (610) clearance to service on right side and front of unit, six inches (152) at back and one foot (305) on the left side.
2. Dimensions in parentheses are in millimeters.
3. Minimum operating ambient of 41 F (5 C). Maximum operating ambient of 105 F (41 C).



SPACE REQUIRED FOR SERVICE

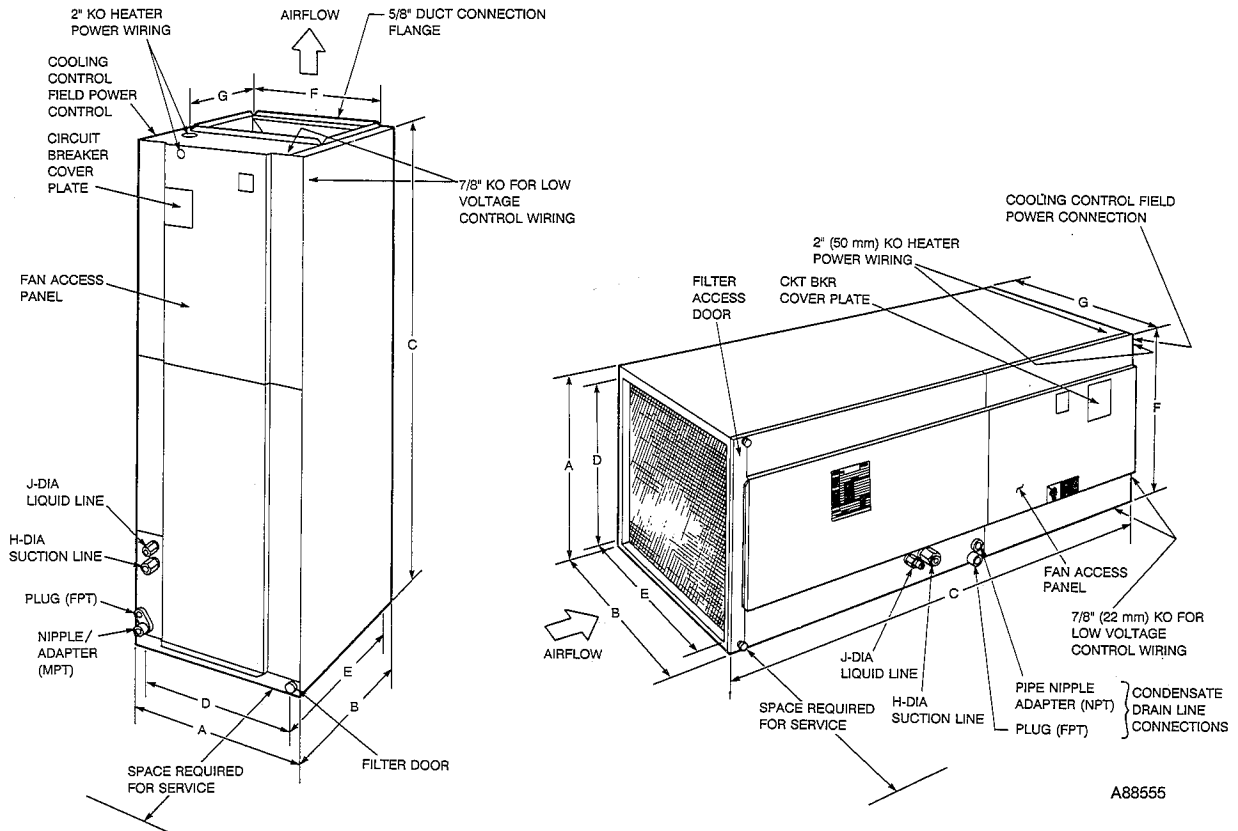
Dimensions

Indoor Compressor

UNIT SIZE	A		B		C		D	
	(FT./IN.)	(mm)	(FT./IN.)	(mm)	(FT./IN.)	(mm)	(FT./IN.)	(mm)
38QE024	2'-2"	660	1'-9-1/4"	540	1'-11/38"	594	2"	51
38QE036	2'-2"	660	1'-9-1/4"	540	1'-11/38"	594	2"	51

NOTES:

1. Allow two feet (610) clearance to service front of unit.
2. Dimensions in parentheses are in millimeters.



Dimensions

Indoor Fan Coil

UNIT SIZE*	A		B		C		D		E		F		G		H		J	
	(FT./IN.)	(mm)	(FT./IN.)	(mm)	(FT./IN.)	(mm)	(FT./IN.)	(mm)	(FT./IN.)	(mm)	(FT./IN.)	(mm)	(FT./IN.)	(mm)	(IN.)	(mm)	(IN.)	(mm)
40QE024	1'-9"	533.4	1'-9-1/2"	561.1	3'-6"	1066.8	1'-6-3/4"	466.7	1'-6-3/4"	476.3	1'-6-5/8"	625.5	9'-11/16"	246.1	3/4"	19.1	3/8"	9.5
40QE036	1'-9"	533.4	2'-2-1/2"	673.1	4'-8"	1422.4	1'-7"	482.6	2-1/2"	822.3	1'-6"	457.2	1'-5-1/2"	444.5	3/4"	19.1	3/8"	9.5

Physical data

Outdoor Coil Section

MODEL 38QE	924	936
REFRIGERANT	22	
COND FAN	Propeller Type, Direct Drive	
Air Discharge	Vertical	
Air Qty (Cfm)	2000	2500
Mtr Rpm (60 Hz)	800	710
COND COIL (fins/in.)	20	20
Tube Diam (in.)	3/8	
Rows	2	
Refrig Ckts	3	4
Face Area (sq ft)	15.0	20.5
CONNECTIONS (in. OD)	Sweat	
Suction	3/4	
Liquid	3/8	
REFRIG LINES* (in. OD)		
Suction	3/4	
Liquid	3/8	

Indoor Compressor Section

Model 38QE	024	036
REFRIGERANT	R22	
Control	Bi-Flow Pulsing EXV	
COMPRESSOR	Reciprocating-Hermetic	
Model	JG22-ECM	
RPM	Variable Speed-ECM	
WATER PUMP	In-Line, Maintenance Free	
Nomil Flow (GPM)	3	
Body Material	Stainless Steel	
HEAT EXCHANGER	Tube-In-Tube	
Tubes	4-Enhanced	
Coil Turns	3-1/2	
Material	Copper	
CONNECTIONS (in.)		
Vapor-Compatible	3/4	
Liquid-Compatible	3/8	
Water-Stub	3/4 Nom. (7/8 O.D.)	
LINES (in.)		
Vapor	3/4	
Liquid	3/8	
Water*	1/2 or 3/4 Nom. (5/8 or 7/8 OD)	

*See Installation Instructions for proper line sizing.

Physical data

Indoor Coil Fan Section

MODEL 40QE	024	036	036H
REFRIGERANT	R-22		
FAN	Centrifugal—Direct Drive		
Air Discharge	up/down/horiz.	up/down	horiz.
Nominal Air Qty (Cfm)	900	1350	1350
Mtr Rpm	Variable Speed—ECM		
COIL (fins/in.)	13		
Tube Diam (in.)	3/8-Enhanced		
Rows	3		
Refrig Ckts	3	4	
Face Area (sq ft)	3.16	5.0	
CONNECTIONS (in.)			
Vapor-Compatible	3/4		
Liquid-Flare	3/8		
REFRIG LINES*			
Suction	3/4		
Liquid	3/8		
FILTER	Factory equipped with permanent filter.		

NOTE: See unit Installation Instructions for proper installation.

*Line sizes are for runs up to 50 ft.

For line set over 50 ft, consult long line information.

Electrical data (60 Hz)

MODEL 38QE		V/PH 60 HZ	OPER VOLTAGE*		COMPR		FAN FLA	MCA	MAX FUSE† OR HACR TYPE CKT BKR AMPS
Indoor Compr Section	Outdoor Coil		Max	Min	MCC	RLA			
024	924	208-230/1	253	187	27.5	20.3	0.5	25.9	40
036	936	208-230/1			27.5	25.3	0.7	32.4	55

FLA —Full Load Amps

HACR—Heating, Air Conditioning, Refrigeration

MCA —Minimum Circuit Amps

MCC —Maximum Continuous Current

RLA —Rated Load Amps

*Permissible limits of the voltage range at which unit will operate satisfactorily.

†Time-delay fuse.

NOTE: Includes service to matched outdoor unit.

INDOOR UNIT 40QE	V/PH	OPER VOLTS*		FAN FLA	MCA	MAX FUSE† OR HACR TYPE CKT BKR AMPS
		Max	Min			
024	208-230/1	253	187	3.5	4.4	15
036				3.5	4.4	15

FLA —Full Load Amps

HACR—Heating, Air Conditioning, Refrigeration

MCA —Minimum Circuit Amps

*Permissible limits of the voltage range at which unit will operate satisfactorily.

†Time-delay fuse.

NOTE: With accessory cooling control package.

Fan Coil Electric Heaters/Electrical Data (208/240 -v, 1-Ph, 60-Hz)

40QE024																			
HEATER 40AQ	kW		HEATER AMPS			MOTOR FLA	AMPACITIES			MIN WIRE SIZE (AWG)*			MAX CIRCUIT PROTECTION			MAX WIRE LENGTH (ft)			MIN CFM (L/S)
	Nom	208-v	SINGLE	DUAL			SINGLE	DUAL		SINGLE	DUAL		SINGLE	DUAL		SINGLE	DUAL		
				L1, L2	L3, L4			L1, L2	L3, L4		L1, L2	L3, L4		L1, L2	L3, L4		L1, L2	L3, L4	
901190	7.5	5.6	27.1/30.0	—	—	3.5	37.4/41.0	—	—	8/8	—	—	40/45	—	—	85/85	—	—	—
901200	10	7.5	36.1/39.9	—	—	3.5	48.6/53.4	—	—	8/8	—	—	50/60	—	—	100/100	—	—	—
903100	12	9.0	—	25.2/27.9	18.1/20.0	3.5	—	35.0/38.4	22.6/25.0	—	8/8	10/10	—	40/40	25/25	—	90/90	90/90	850
903060	15	11.3	—	36.1/39.9	18.1/20.0	3.5	—	48.6/53.4	22.6/25.0	—	6/6†	10/10	—	50/60	25/25	—	100/100	90/90	(401)
903080	20	15.0	—	36.1/39.9	36.1/39.9	3.5	—	48.6/53.4	45.1/49.9	—	6/6†	6/6	—	50/60	50/50	—	100/100	105/105	—
40QE036, 40QEH036																			
HEATER 40QB																			
900010	7.5	5.6	27.1/30.0	—	—	3.5	37.4/41.0	—	—	8/8	—	—	40/45	—	—	80/80	—	—	—
900020	10	7.5	36.1/39.9	—	—	3.5	48.6/53.4	—	—	6/6†	—	—	50/60	—	—	95/95	—	—	—
901060	15	11.3	—	36.1/39.9	18.1/20.0	3.5	—	48.6/53.4	22.6/25.0	—	6/6	10/10	—	50/60	25/25	—	95/95	90/90	1200
901100	20	15.0	—	36.1/39.9	36.1/39.9	3.5	—	48.6/53.4	45.1/49.9	—	6/6†	6/6	—	50/60	50/50	—	95/95	105/105	(566)

*40QB heaters minimum wire size based on using copper wire with a minimum 90C insulation rating. Use copper wire only. 40AQ heaters minimum wire size based on using copper wire with a minimum 75 C insulation rating.

†If used in a raceway or cable or earth (directly buried), must use a 4 AWG wire at 230-v operation per NEC 1984 Standard. Table 310-16.

NOTE: Motor FLA peak at 208-v operation with a severely restricted duct system. Nominal amp draws range from 0% to 90% of FLA.

Accessories

Supplied with Each System

ORDERING NUMBER	DESCRIPTION
313204-701	Water Heater Control Box
313288-701	Water Temperature Sensor Assembly
313243-201	Compressor Section Base Pad

NA—Not available at this time

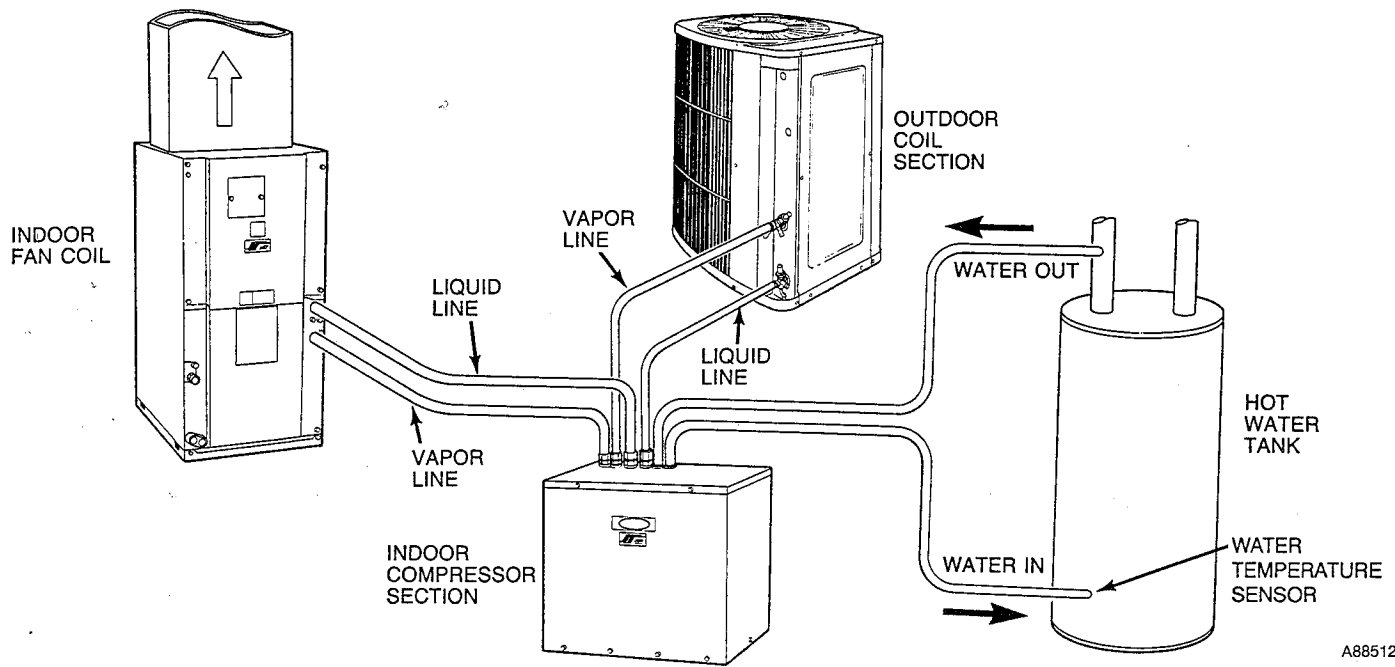
Other Accessories

ORDERING NUMBER	DESCRIPTION
NA	Parker Homezone Slave Thermostat
NA	Parker Zone Damper*
NA	Parker Power Supply Package*
NA	Parker Bypass Controller
HL38MG026	Humidistat
—	Humidifier (See 49BF/FH/WS)
—	Electric Air Cleaner (See 31MP/SX)
38TH900011	Outdoor Support Feet - 4 inch (4)
38YH900011	Outdoor Snow Rack - 18 inch (38QE924)
38YH900021	Outdoor Snow Rack - 18 inch (38QE936)

NA—Not available at this time.

*One or the other required.

Typical installation



Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.