



COOLING ONLY/LIMITED RANGE HEAT PUMP

Nominal Capacities: 9,000 - 12,000 -
15,000, 18,000 -24,000 - 30,000 Btuh

DESCRIPTION

EMI offers the finest high capacity multiple zone outdoor unit, in the ductless split market. The MC/MH4 High Capacity Condensing Unit allows the installation of up to four circuits from a single outside location when space or aesthetic requirements limit the use of locations. Each zone is independent and no mixing of refrigerant is required. Valves are internal for tamper protection.

When specifying heat pump(s), it is recommended that the matching evaporator(s) be equipped with electric heat. The MH4 will operate down to 35° F, outdoor temperature, at which point it will initiate change over to electric heat and shut down.

All EMI products are subject to ongoing development programs and design and specifications may change without notice.

▲▼ **Compressors** - Hermetically sealed high efficiency rotary or reciprocating types, depending on zone loads. Motors are PSC type with inherent overload protection. Compressors are installed on resilient mountings. EMI's Duratec package is installed on circuits with 9,000, 12,000 & 15,000 Btuh rotary compressors.

▲▼ **Capacities/Efficiencies** - The MC/MH4 produces system SEER's exceeding 10.0.

▲▼ **Cabinet** - Fabricated of G60 gauge galvaneal steel, finished with corrosion inhibiting, polyester, powder coated paint (2,000 hr. salt spray tested)

- **Fan Guard** - Black vinyl coated,
- **Color** - Cabinet: Off-white,
- **Coil** - Black

▲▼ **Refrigeration Circuit** - The MC/MH4 is delivered with pre-charged refrigerant for the condenser coils and evaporators. Charging of the field installed piping is required. Unit refrigeration valves are solid brass, for sweat connection. Solid core filter driers are factory installed on all models.

▲▼ **Reverse Cycle Operation (MH4)** - A four-way, reversing valve, solenoid activated by 24V, is energized for cooling operation. A TXV with internal check valve provides proven operation through all temperature ranges when in the heat pump mode.

▲▼ **Condenser Coil** - Condenser coils are seamless, copper tubing, arranged in staggered configuration, with enhanced aluminum fins tested to 460 psig. The tubes are mechanically expanded for secure bonding to fin shoulder.

▲▼ **Condenser Fan/ Motor** - The condenser fan is a large diameter, high efficiency, three blade aluminum propeller type, directly connected to the totally enclosed, PSC motor (15 and 30 models are 6 pole). The motor is fitted with internal thermal protection. The MC/MH units are a drawthrough air flow design.

▲▼ **Controls/ Components:**

Controls installed at the factory include:

- Compressor and fan motor contactor
- Capacitor
- Loss of charge switches – 9,000, 12,000 & 15,000 Btuh (rotary compressor)
- Low Voltage interconnect
- High pressure control on 18,000 to 30,000 Btuh (reciprocating compressor)
- Large capacity suction accumulator (9,000, 12,000 & 15,000 Btuh rotary compressors only)
- Factory installed solid core filter driers (9,000, 12,000 & 15,000 Btuh rotary compressors only) Cooling only and heat pump units.

▲▼ **Refrigerant Run Options** - The standard system will support refrigerant runs to the inside unit of 35' of lift, up to 100' of interconnect.

SYSTEM OPTIONS

- **Low ambient options**- Specify this option if the system will operate in cooling mode at outside temperatures below 60° F (Includes fan cycle switch and crank-case heater on 9,000, 12,000 & 15,000 Btuh rotary compressors)
- **Sea coast style coated coils**
- **265V** -consult factory
- **Hard start** (straight cool only)

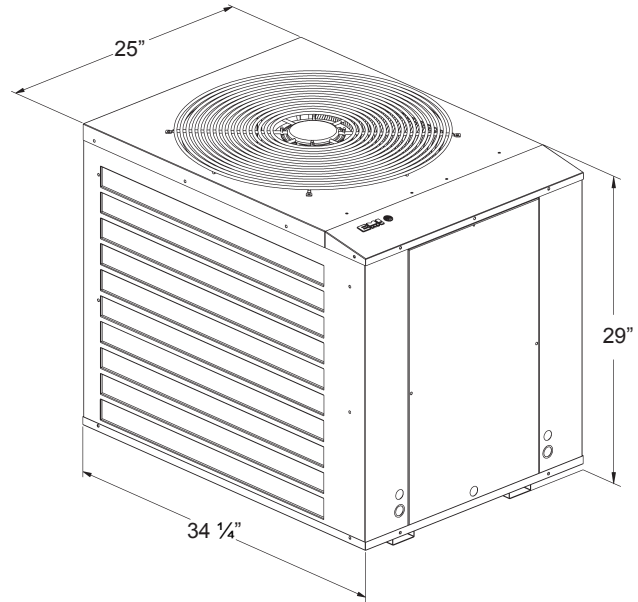
SPECIFICATIONS AND PERFORMANCE

MC4/MH4 DIMENSIONS AND SPECIFICATIONS

NOTE: Due to EMI's ongoing development programs, design and specifications may change without notice.

MC4/MH4 Piping Specification		
Ref. Line Size		
Model	Liquid	Suction
09, 12	1/4"	1/2" O.D.
15	1/4"	5/8" O.D.
18	3/8"	5/8" O.D.
24	3/8"	3/4" O.D.
30	3/8"	3/4" O.D.

Note: Do not upsize lines.



Reference Circuit Ratings (1)				
MC4/MH4 Model	Cooling		Heating	
	Btuh	SEER	Btuh	C.O.P.
09	9,400	10.5	8,000	3.1
12	10,800	10.5	10,000	3.1
15	14,200	10.0	13,600	3.0
18	17,100	10.0	16,000	3.2
24	22,000	10.0	20,800	3.0
30	28,600	10.0	26,500	3.0

(1) See Model Chart for proper System Capacities.

MC4/MH4 208/230V - 60 HERTZ 1 - PHASE														
CAPACITY	FAN MTR		COMPRESSOR								TOTAL AMPS	MCA	HACR BRKR	MIN VOLT
	AMPS	HP	CIRCUIT #1		CIRCUIT #2		CIRCUIT #3		CIRCUIT #4					
			RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA				
9990	1.0	0.125	3.8	20.0	3.8	20.0	3.8	20.0			12.4	13.4	15	197
2220	1.0	0.125	4.8	26.3	4.8	26.3	4.8	26.3			15.4	16.6	20	197
2550	1.8	0.33	4.8	26.3	6.7	48.0	6.7	48.0			20.0	21.7	25	197
9920	1.0	0.125	3.8	20.0	3.8	20.0	4.8	26.3			13.4	14.6	15	197
9908	1.0	0.125	3.8	20.0	3.8	20.0			7.4	48.0	16.0	17.9	25	197
9208	1.0	0.125	3.8	20.0	4.8	26.3			7.4	48.0	17.0	18.9	25	197
9904	1.0	0.125	3.8	20.0	3.8	20.0			9.6	60.0	18.2	20.6	30	197
9905	1.8	0.33	3.8	20.0	3.8	20.0			6.7	48.0	16.1	17.8	20	197
9504	1.8	0.33	3.8	20.0	6.7	48.0			9.6	60.0	21.9	24.3	30	197
9508	1.8	0.33	3.8	20.0	6.7	48.0			7.4	48.0	19.7	21.6	25	197
2208	1.0	0.125	4.8	26.3	4.8	26.3			7.4	48.0	18.0	19.9	25	197
2008	1.0	0.125	4.8	26.3					7.4	48.0	13.2	15.1	20	197
9999	1.0	0.125	3.8	20.0	3.8	20.0	3.8	20	3.8	20.0	16.2	17.2	20	197
2222	1.0	0.125	4.8	26.3	4.8	26.3	4.8	26.3	4.8	26.3	20.2	21.4	25	197
9922	1.0	0.125	3.8	20.0	3.8	20.0	4.8	26.3	4.8	26.3	18.2	19.4	20	197
0808	1.0	0.125			7.4	48.0			7.4	48.0	15.8	17.7	25	197
0404	1.0	0.125			9.6	60.0			9.6	60.0	20.2	22.6	30	197
0804	1.0	0.125			7.4	48.0			9.6	60.0	18.0	20.4	30	197
5555	1.8	0.33	6.7	48.0	6.7	48.0	6.7	48	6.7	48.0	28.6	30.3	35	197
0303	1.8	0.33			11.8	73.0			11.8	73.0	25.4	28.4	40	197

MC4/MH4 265/277V - 60 HERTZ 1 - PHASE														
CAPACITY	FAN MTR		COMPRESSOR								TOTAL AMPS	MCA	HACR BRKR	MIN VOLT
	AMPS	HP	CIRCUIT #1		CIRCUIT #2		CIRCUIT #3		CIRCUIT #4					
			RLA	LRA	RLA	LRA	RLA	LRA	RLA	LRA				
9990	1	0.125	3.3	18.6	3.3	18.6	3.3	18.6			10.9	11.8	15	240
2220	1	0.125	4.2	28	4.2	28	4.2	28			13.6	14.7	15	240



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