

# **EQ Series**

# Design and Component Specifications 1 to 3 Tons



**EQ Family of Chillers** 

#### General

The EQ Series portable chillers are designed for indoor use in industrial manufacturing locations. The chillers are produced in our ISO 9001:2008 certified facility. Water-cooled and air-cooled units ship with a full refrigerant charge. Units with a remote air-cooled condenser ship with a nitrogen charge. All units are housed in a heavy gauge painted steel cabinet with tool-free access.

#### **Mechanical Features**

- Energy efficient and reliable rotary compressor (1 ton unit only) or scroll compressor (2 and 3 ton units)
- · Electronic hot gas bypass for capacity control
- Stainless steel brazed plate evaporator provides higher heat transfer coefficients due to reduced fouling.
- (Air-Cooled Units) Generously sized copper tube/aluminum finned air-cooled condensers designed for industrial environments. Includes air inlet filters (optional on 1 ton unit).
- (Water-Cooled Units) Generously sized cleanable shelland-tube water-cooled condenser for industrial environments.
- (Remote Condenser Units) Modular design with divided fan sections to prevent 'wind-milling' during fan cycling. Includes galvanized steel fan sections and coil baffles, copper tube/aluminum fin coils tested to 400 PSIG, direct drive multi-blade propeller fans with venture orifices to optimize efficiency, and a nitrogen holding charge.
- (Water-Cooled Units) Condenser water regulating valve to provide constant head pressure
- Refrigerant TXV, filter/drier, and sight glass
- Freezestat safety switch with solid state sensor

- Encapsulated high and low refrigerant pressure safeties
- Nonferrous water circuit construction
- Insulated polyethylene reservoir with removable cover
- · Process pump with pressure gauge
- · Pressure or flow switch interlocked with compressor
- Y-strainer to protect evaporator from contamination
- Internal valved bypass line to protect pump and evaporator
- (Air and Water-Cooled Units) Factory tested under full load conditions prior to shipment

#### **Electrical Features**

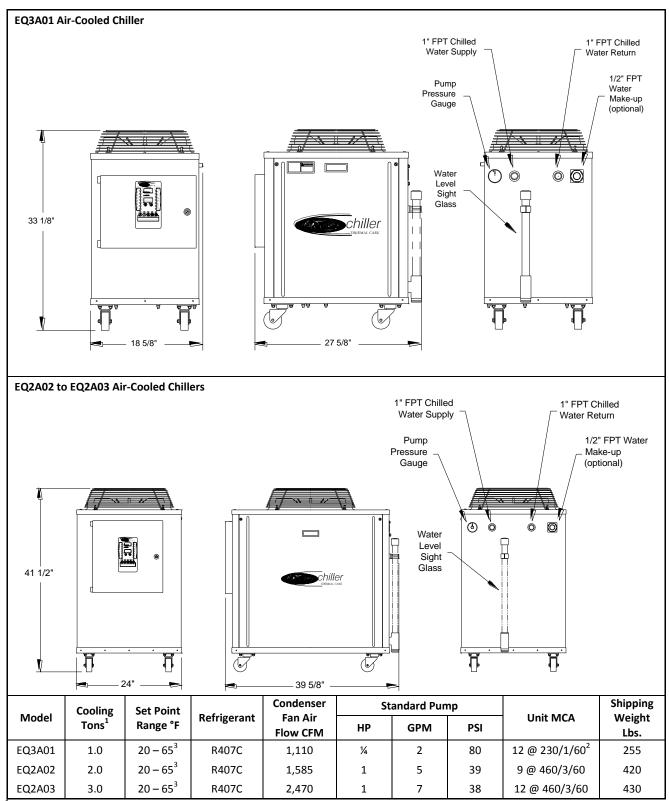
- Compressor, pump and condenser fan (air-cooled units only) starters mounted in control panel and wired to motors
- Single-point main power block for simple wiring connection

## **Microprocessor Features**

- Dual LED digital displays of actual and set point temperatures
- Anti-cycle 2.5 minute timer to prevent short-cycling of compressor
- Deviation alarm 30 minute timer delay to prevent nuisance alarms during start-up and set point changes
- Display temperatures easily switched from °F to °C from the front panel
- · Easy front panel alarm reset button
- Diagnostic lights: no flow, high refrigerant pressure, low refrigerant pressure, freezestat, over set point, under set point, pump on, compressor on, partial load, water make-up (active if option is purchased), low water level (active if option is purchased), high water temperature and probe fault
- Operation lights: control power on, start, stop, alarm reset, alarm horn silence (active if option is purchased)
- · PID control algorithm

### Warranty

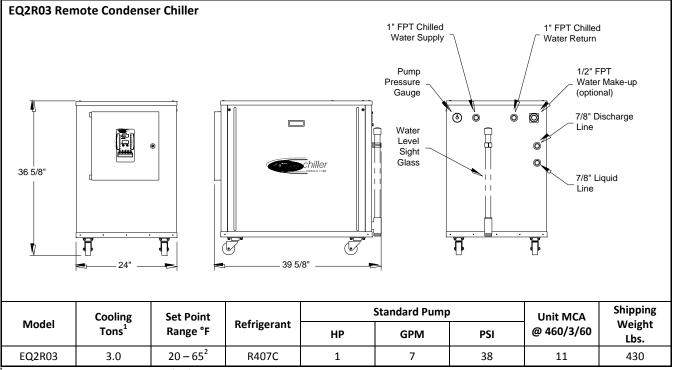
- 5 year parts warranty for microprocessor with a lifetime \$175 exchange policy after initial 5 year warranty period
- · 1 year parts warranty
- · 1 year labor warranty



Cooling tons based on 12,000 BTU/Hr/ton with 50°F leaving coolant and 95°F ambient air

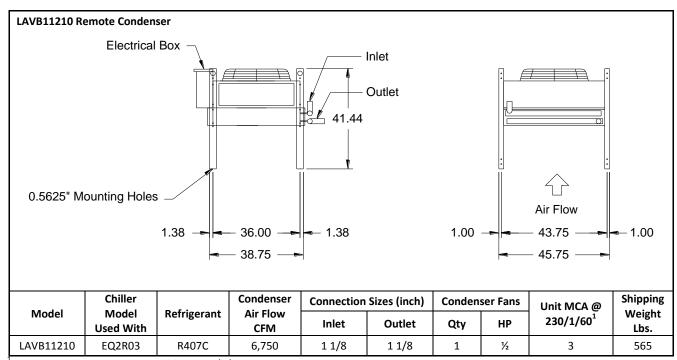
<sup>&</sup>lt;sup>2</sup>Model EQ3A01 is only available as a 230 volt, single-phase, 60-Hertz unit.

<sup>&</sup>lt;sup>3</sup>Standard set point range is 20°F to 65°F. To extend range to 20°F to 80°F the CPR valve option is required.

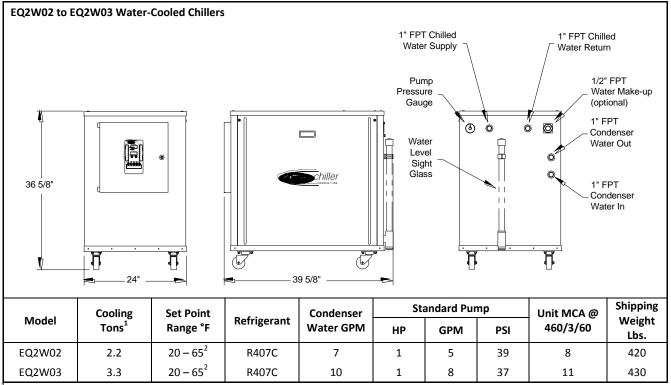


Cooling tons based on 12,000 BTU/Hr/ton with 50°F leaving coolant and 95°F ambient air.

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Remote condenser is only available in 230/1/60.

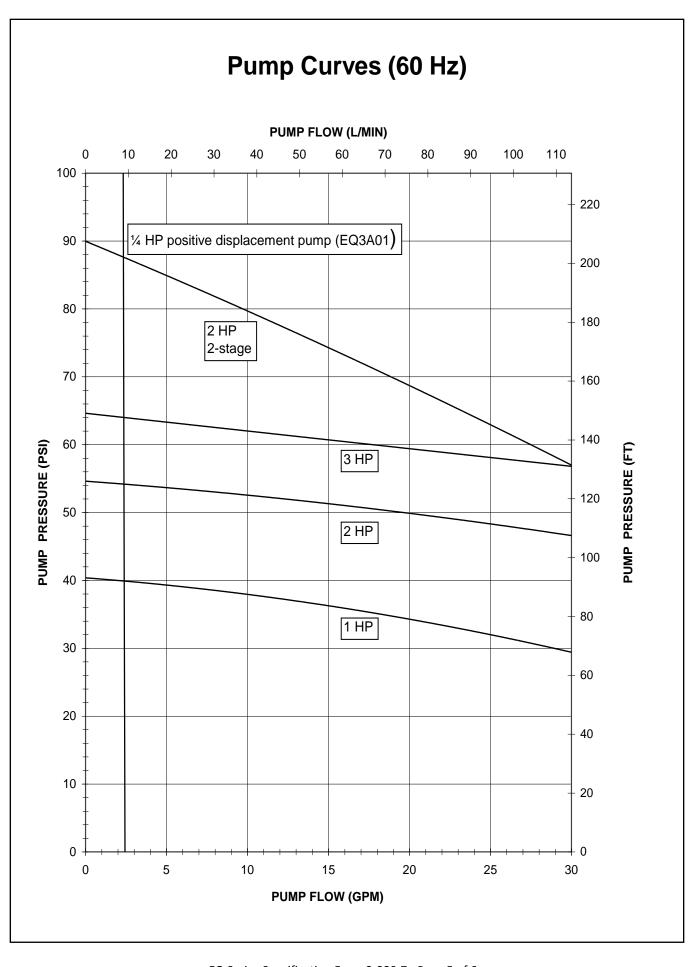


<sup>1</sup>Cooling tons based on 12,000 BTU/Hr/ton with 50°F leaving coolant and 85°F condenser water

Unit MCA @ 460/3/60 with Optional Pump Sizes

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Pump	1 HP	2 HP	2 HP 2-stage	3 HP
EQ3A01				
EQ2A02	9	10	10	12
EQ2W02	8	9	9	11
EQ2A03	12	13	13	15
EQ2R03	11	12	12	14
EQ2W03	11	12	12	14

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## **Notes**



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