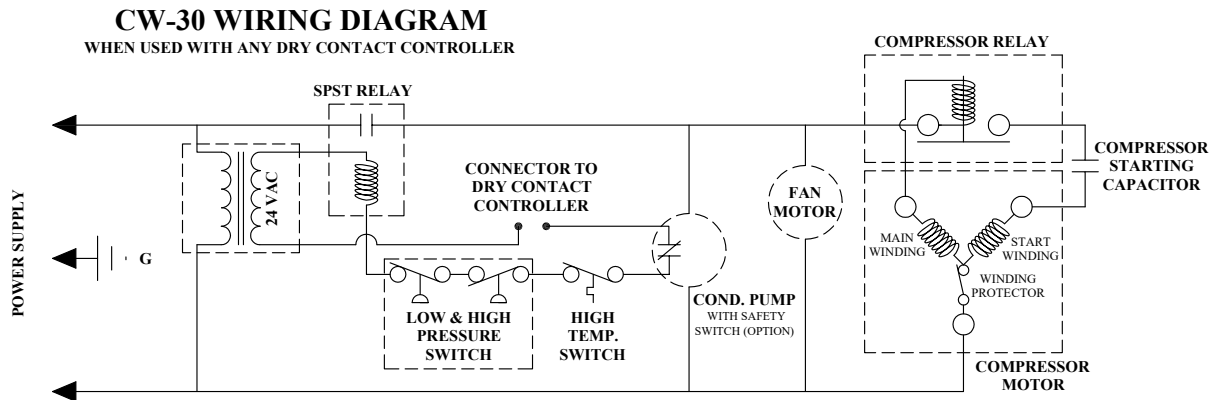


Electrical Connection:

- / Provide a receptacle on separate circuit at point of installation (unit is not hard-wired). For a 115/1/60 power supply, provide a dedicated 15 Amp circuit breaker. For 230/1/50 power supply (European market only), provide a dedicated 10 Amp circuit breaker. For full electrical data, please see equipment data label on unit.
- / Thermostat rough-in: Choose a location within the treated space that will not be directly affected by the supply airstream. 20' of 18/2 stranded conductor is supplied with a harness connection that plugs into the CW-30. The thermostat can either be mounted directly on a wall or with a flush mounted vertically oriented single gang switch box (preferred option). If a longer cable is required or if the thermostat rough-in is to be completed before the CW-30 is on site, use 18/2 stranded conductor and splice on to the supplied harness.

Use of DDC or Alternate Controls

- / Any type of DRY CONTACT control device can be used in place of the supplied thermostat. Please refer to the electrical diagram below. Please note that this cannot be done if the unit has been ordered with the optional Internal Digital Thermostatic Control System.



Plumbing Connections:

- / Three 1/4" FPT plumbing connections (see shop drawing for location) are required as follows:

1. One water supply connection (labeled as "Water In" on the unit).

For domestic cold water applications: For domestic cold water applications: Install a water shut-off valve near the unit. Pressure should be regulated to a maximum of 80 PSI. A minimum water pressure of 15 PSI is required for units having gravity drains. Otherwise, add loss of piping and head of drain line to calculate required water pressure (this calculation is not necessary if unit is operating under full city water pressure). Please consult with the local authority having jurisdiction to see if local laws require the installation of a type of backflow preventer (such as RPBAs) which is sometimes required when cooling equipment is connected to the domestic cold water supply. (Please also read the boxed note at the bottom of page two of this document.)

For closed loop applications: Ensure that inlet water temperature will not exceed 95°F. Do not install a balancing valve – the unit is equipped with an internal water regulating valve to control the head pressure. Flow characteristics: 0.0 gpm when unit is off / 0.25gpm @ 60°F / 1 gpm @ 95°F, 1 PSI PD). Provide isolation valves near the unit. The closed loop system will need to be able to care for a heat of rejection load of 6,000 Btu/hr.

2. **One water outlet** connection (labeled as “Water Out” on the unit). For domestic cold water applications, connect to a main sanitary waste or storm drain line, according to local code (e.g. dishwasher type drain connection or a floor drain). If tying in to an overhead drain line, tap into the top end of the pipe to prevent back pressure. Since this line is under city pressure, head of drain line is only limited by city pressure.
 3. **One condensate drain** connection (labeled as “Condensate Drain” on the unit). Unit is equipped with an internal condensate pump capable of 20’ of head – a gravity drain is not required. **DO NOT TIE TWO DRAIN CONNECTIONS TOGETHER.** Separately connect to a main sanitary waste or storm drain line, according to local code (e.g. dishwasher type drain connection or a floor drain). If tying in to an overhead drain line, tap into the top end of the pipe to minimize back pressure. Line should be brought up high enough (vertically) to allow for a 2% downward slope for the entire horizontal run of the pipe.
- / Copper tubing, PEX tubing or the supplied braided stainless steel lines can be used. When a system is connected to a domestic cold water supply, only 3/8” OD tubing should be used for all three water connections and larger sized piping should never be used for either of the two drain connections. When a system is connected to a closed loop system, the local designer should specify the supply and return water line sizes but only 3/8” OD tubing should be used for the condensate drain.
 - / Three 1/4” MPT x 3/8” compression elbow fitting adapters are supplied with the unit for ease of installation (use Teflon tape or paste prior to connecting these or any other fittings to unit).
 - / The CW-30 has a head pressure safety switch that does not automatically reset. If the supply water flow is interrupted the unit will stop operating. Therefore, it is best to tag all water shut-off valves that will affect flow to the unit as follows: “Turn wine cooler off prior to shutting this valve and turn cooler back on after reopening valve.” Install the supplied warning tag (yellow tag) at the main water supply valve to the dwelling.
 - / While the water lines do not need to be insulated, it is best to separate the supply and return water lines to prevent heat transmission.
 - / A water filter is typically not required. However, in areas with serious water quality issues, it may be practical to use a filter, but regular filter maintenance is required to prevent restricted water flow to the CW-30.
 - / Since the CW-30 has a head pressure safety switch that does not automatically reset, if frequent water flow interruptions are expected to occur (e.g. a well water or closed loop system pump shutdown), it is advisable to install an external water pressure switch (e.g. Hubbell 69WR*) on the inlet water side of the system that is wired in series with the thermostat. When the water pressure drops below setpoint (e.g. due to pump shutdown), the water pressure switch will prevent the CW-30 from turning on which in turn will prevent the head pressure safety switch from tripping. When selecting the external water pressure switch choose a model that has an operating range suitable for the system.

PLEASE NOTE: A number of municipalities have laws prohibiting the use of “once through cooling equipment” and a CW-30 that uses domestic cold water for heat rejection (as opposed to it being part of a closed loop system that recirculates water) fits this description. However, in some cases, these laws apply only to air-conditioning equipment or to cooling equipment that exceeds a certain capacity. Therefore, if you plan to use domestic cold water, it is always recommended that you consult with the local authority having jurisdiction to ensure that there are no local restrictions that apply to the CW-30. If a city official, engineer or contractor makes the claim that the use of the domestic-water-cooled equipment is prohibited, please ask them to provide a specific reference to the law they are referring to and forward this information to M A N Systems so that we can confirm if this restriction applies to the CW-30.