

BAY[®] Cooling Tower Automation

Features

Control any make or model of cooling tower using today's modern PLC hardware.

Network multiple cooling towers together to act as a single unit allowing for maximum flexibility and efficiency.

Auto start and stop of pumps and fans to maintain your pressure and temperature requirements.

Precision pressure and temperature regulation

Performance Reporting

Machine Protection

Benefits

Energy Savings - The Bay Cooling Tower controller will properly stage and utilize your pumps based on your set points, allowing for maximum energy savings while delivering accurate performance.

Comprehensive Cooling Tower Protection - All aspects are continuously checked and monitored against standards and alarm set points.

Pressure maintained within two PSI of set point. Less wasted water saves money.

Temperature is maintained within 2°F of your set point while allowing you the ability to stage your cooling fans based on demand allowing you to save energy.

Control, Manage, Integrate

Today, the Bay Cooling Tower Control package offers the most sophisticated and comprehensive level of control available to record, report, monitor and manage one or multiple cooling towers. The Bay Cooling Tower Control package provides energy cost savings and management benefits with its easy-to-use features and networking abilities that will improve the efficiency of an entire cooling water system. The Bay Cooling Tower control package retrofits any OEM Cooling Tower Control package.

Performance & Reliability

Precise and responsive Bay Controllers maintain system pressure to within two PSI or less of the set point, regardless of large shifts in water demand. A smaller pressure window means the system-wide pressure set point can be lower, reducing energy costs and saving money.

Functional Highlights

The Bay Cooling Tower Controller offers individual cell, pump and fan control allowing the system to properly stage each cell, fan or pump. This allows you to utilize each component independently when necessary.

A customized alarm system can be configurable by the end user allowing for maximum safety and efficiency of personnel.

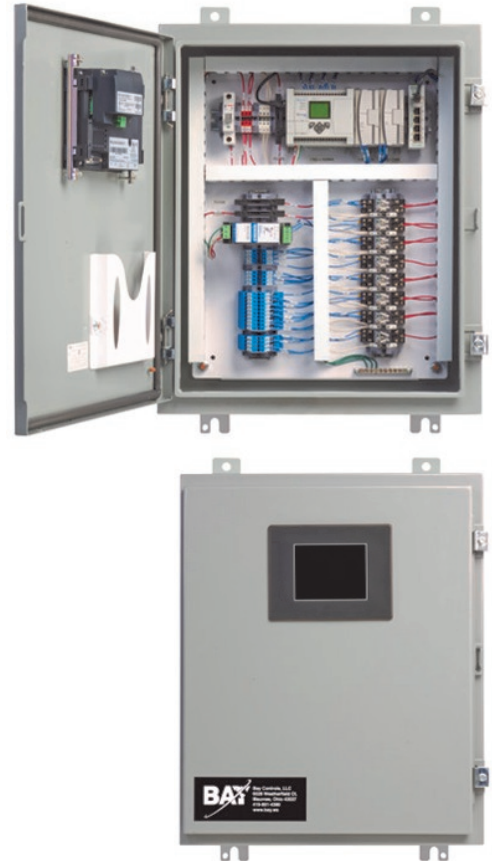
Manual override functions are built into the user interface allowing maintenance personnel to perform necessary work or diagnostics.

User Friendly

Bay's Cooling Tower Controller is easy to use with features like an intuitive color touch screen display with customized graphics and built-in web server. A multilevel security function restricts access to critical command functions.

Connectivity

The Bay Cooling Tower Controller comes standard with an Ethernet communications port as well as a Modbus RTU communications port. Using these ports, the end user can integrate the Bay Controller into a wide variety of plant automation systems.



Monitoring, Reliability & Protection

The Bay Cooling Tower Controller provides the most comprehensive protection possible. Every relevant aspect of the cooling tower is continuously monitored and compared to established operating ranges and alarm set points. Operation events, start-ups, shutdowns, set point changes, alarms and trips are recorded and retained for diagnostic reference should a cooling tower problem ever occur. At start-up or shutdown, the Bay Cooling Tower Controller controls auxiliary systems and ensures all permissive conditions are met prior to execution.



Who We Are . . .

Bay is an energy solutions company that provides products and services to a broad range of industrial, commercial, government, and now, home customers. We provide cost savings for our clients through increased energy efficiency, improved system management, better reliability, and reduced downtime. Bay was founded in 1983. As of December 1, 2008, our solutions - with over 5,000 installed units worldwide - are providing over 1.8 terawatt-hours (1,800 million kilowatt-hours) of annual energy savings for our customers in 70 countries. Our headquarters and network operations center is located in Maumee, Ohio.

Other Products

Bay Compressor Controller

Industry leading controls for all rotary screw, reciprocating, and centrifugal air compressors.

BayWatch®

Web-based hosted monitoring and alerting system for single and multi-plant applications.

BayView® Server

Full featured, HMI/SCADA system for air compressors controlled by the Bay Compressor Controller.

BayNet®

Advanced scheduling system, automating compressor schedules and operating conditions.

BayView® 20/20

Customizable HMI/SCADA system for integrating varying plant systems.

WaveSync™

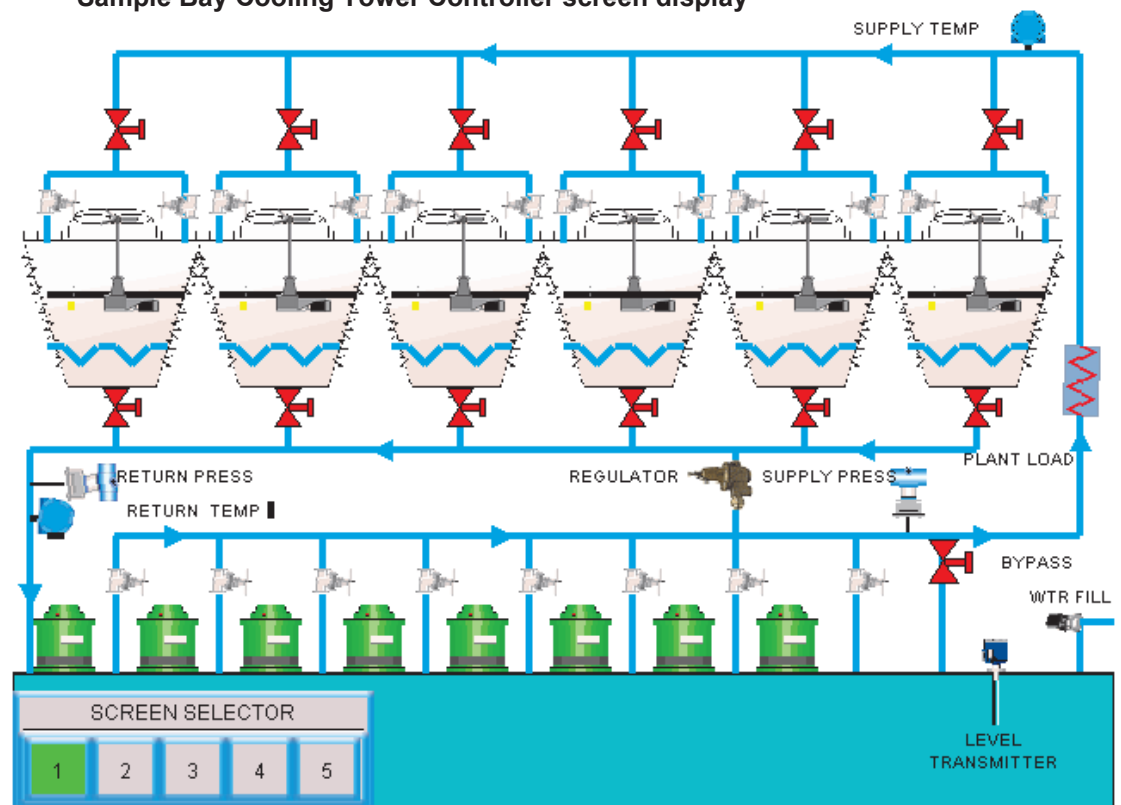
Innovative ride through control system for rotary screw and centrifugal compressors.

PLC Custom Controls

Advanced customized control systems for cooling towers, dryers, and other industrial applications.

Bay Cooling Tower Controller

Sample Bay Cooling Tower Controller screen display



Specifications & Requirements

Enclosure	NEMA 4 Rating
Power Requirements:	100—240 VAC 50/60 Hz 10 Amp
Display:	8" Color Touch Screen, 640 x 480 VGA Screen Resolution, Ethernet and USB connections with built in web server
Communications:	Ethernet and Modbus RTU
Monitoring Inputs:	4-20 mA Analog Inputs (24 VDC); RTD Temperature Inputs, 24 VDC Digital Inputs.
Control Outputs:	4-20 mA Analog Outputs (24 VDC), 100-240 VAC Digital Outputs (Solid state relay, 5 Amp)
Expansion Capability:	Additional expansion modules possible.



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