CoolTrol® Energy Control Products

National Resource Management, Inc.

CCS2 Cooler Energy Control System - Spec Sheet

CCS2 Controller

Description

The CCS2 is a microprocessor based digital controller that is designed and programmed to operate a walk-in cooler in an energy efficient manner. The controller features a graphic display and a keypad, which allows operating parameters to be viewed and changed.
The control box has a run/bypass button and optional switch. When the controller is in bypass mode, all relays are de-energized. The relays go to their NC positions and the original control circuit is reestablished. The cooler is now operating on the original thermostat.

Features

- Shutdown Button – timed shutdown while loading cooler.
- Optional Outside Air Economizer. (E option)
- Night Setback of coolers with non-perishable product. (NS option)
- Optional Dewpoint based Anti-Condensate Heater Control. (DH option)
- Optional heater control.
- Alarms – high/low temperature.
- Defrosts based on load, and terminated on temperature.
- Data Logging – up to 10 years of data.
- Two 4-20mA inputs for logging data from Current/Pressure Transducers.
- Two low voltage PWM outputs for controlling Door Heater SSRs.
- Remote Monitoring/Control with Remote Site Manager Service. Requires a paid subscription for access.
- Modbus-TCP and Web REST API for access to data and settings.
- Distributed Control – Defrost, Compressors, Shutdown, Bypass, and Outside temperature are synchronized between groups of controllers.

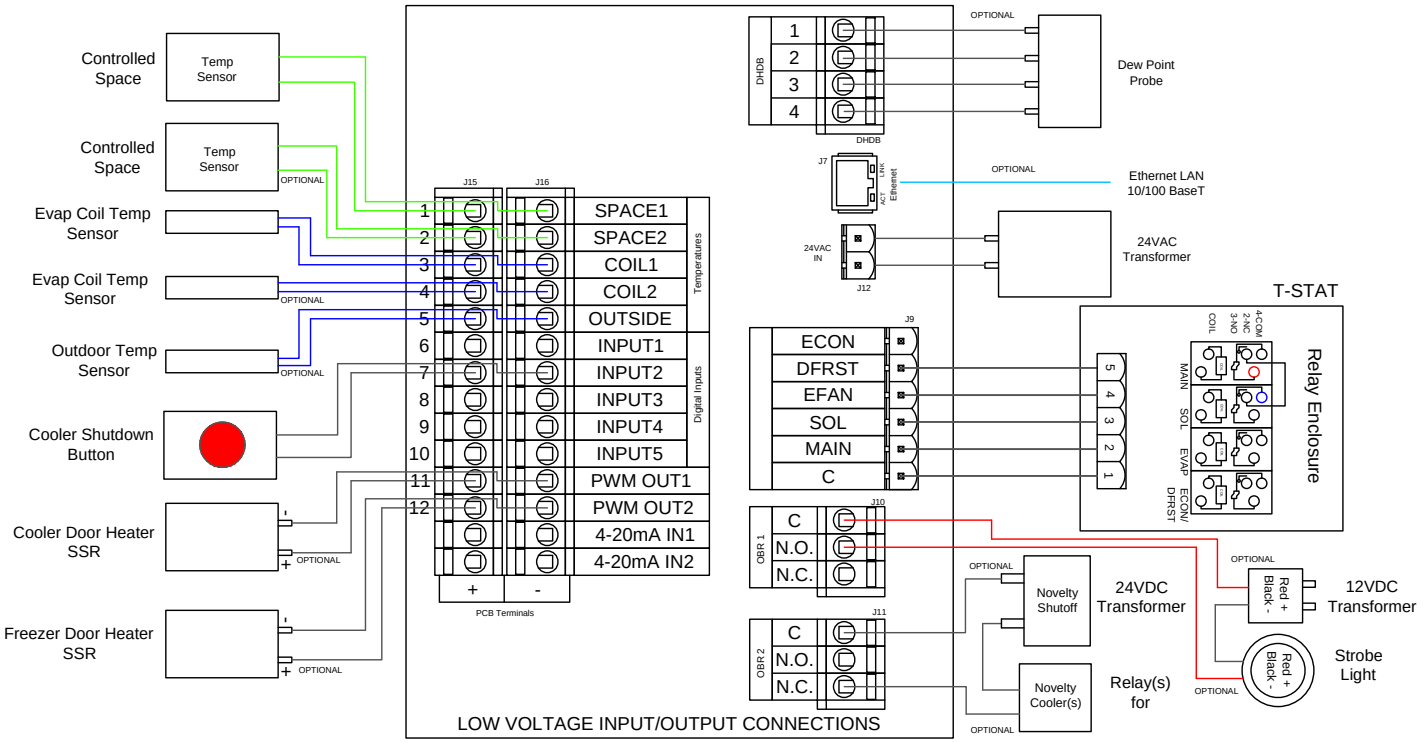
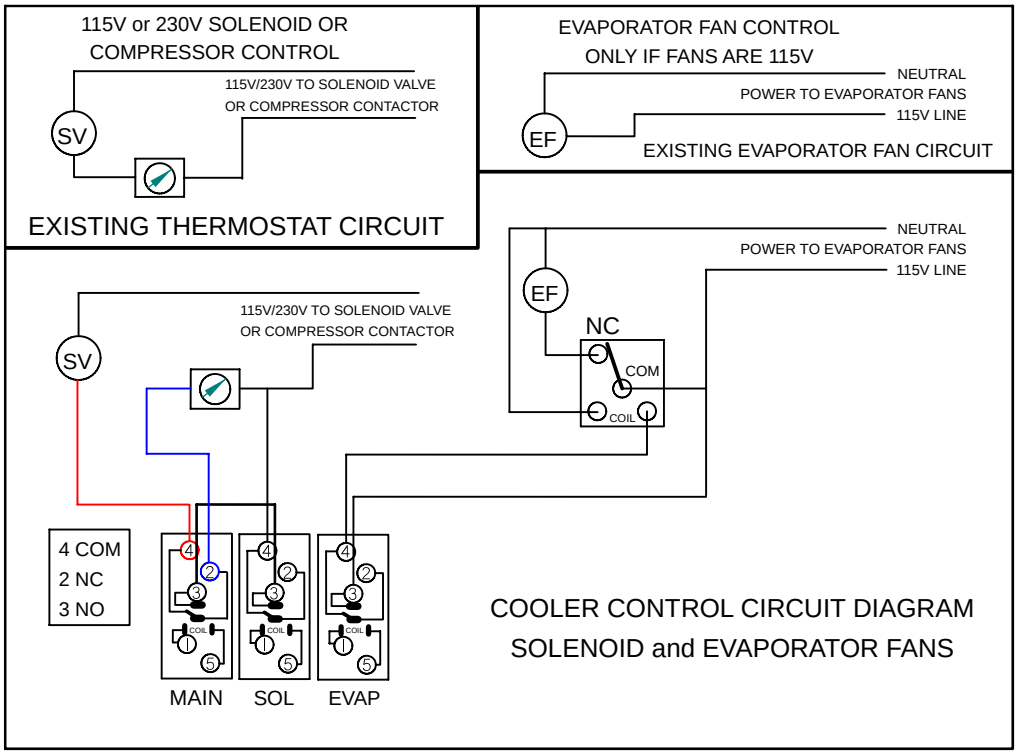
Specifications

Power supply	24 VAC 20VA	Temperature sensors	5kΩ thermistor, Z curve
Onboard Relays	1A at 24 V AC/DC	Digital Inputs	Dry contact
Control Relay Rating	250VAC 7.5A	Communication port	Ethernet
PWM outputs	14 VDC 34mA		
DH Relay Rating	240VAC 20A	Control range:	
Ethernet	10/100BaseT RJ45	System with Air Defrost	31ºF - 90ºF
Agency approvals	UL Listed 34BA Refrigeration Controller	System with Electric/Hot gas Defrost	-35ºF - 90ºF

Options

_E	Outside air economizer.		
_NS	Night Shutoff Control. Single channel, 7 day on/off control.	_SDK-SM-DEF-Kit	Electric Defrost control
_DH	Door Heater anti-condensate control, 2 channels.	_FH	Freezer Heater control

Typical system connections



Typical control connections