Emerson Commercial Comfort controller

For Copeland Scroll Digital™ compressors
Introducing the Emerson Commercial Comfort controller

The Emerson Commercial Comfort controller is a networkable thermostat, compressor, and system controller with built-in temperature sensors. It is compatible with single, 3-15 ton Copeland Scroll Digital™ compressors and tandem configurations up to 30 ton. This simple BACnet programmable thermostat enables variable capacity, dehumidification, improved system performance, and reduced operating costs without the expense of a large building automation system. The Emerson Commercial Comfort controller, with 5 relays, 1 triac, and 3 analog outputs, is manufactured exclusively for the Copeland Scroll Digital compressor.

The Emerson Commercial Comfort controller may be applied in most single or multi-stage direct expansion compressor applications, including roof top or split commercial and residential unitary applications, heat pumps, and chiller applications. Using the controller as an approved ‘off the shelf’ solution enables use of Copeland Scroll Digital compressors in retrofit or service applications. In single compressor applications, the Emerson Commercial Comfort controller varies the capacity of the Copeland Scroll Digital compressor over 10-100% of the rated capacity. In dual compressor applications, the controller manages the variable capacity Copeland Scroll Digital compressor as the first stage of cooling and the second stage single capacity compressor over the full range of cooling demand.
Features

- Remotely mounted controller with consolidated temperature sensing and control.
- Precise control of the variable capacity compressor
- User-friendly, high-contrast LCD display with five buttons for menu-driven configuration and operation.
- Three analog inputs are available for external sensors.
- Built-in, factory-tested library of configurable application control sequences.
- Configurable password protection.
- Easily adjust the setpoint, change system modes, and fan speed.
- Built-in scheduling with weekly, weekdays/weekends, daily, and holiday options for easy configuration.
- Multiple built-in alarms and trend logs enhance system monitoring
- All required safeties to properly load and unload the compressor are embedded in the firmware of the device, negating the need for any external safety type devices (other than mechanical emergency high and low pressure cutout switches).

*NOTE: Current models have three inputs for external sensors. Future models may include six inputs as well as a built-in CO₂ sensor.

Communication with other BACnet network devices and remote control

Temperature sensing

3 (or 6) analog inputs for other sensors *

24 volts AC power

5 relays, 1 triac, and 3 analog outputs

Quick (temporary) network access through computer data port

Terminal blocks on removable backplate for easy wiring

Dimensions in inches (mm)

Two-piece design allows field rough-in and termination of field wiring to the backplate.
About Emerson

Emerson (NYSE: EMR), headquartered in St. Louis, Missouri (USA), is a global technology and engineering company providing innovative solutions for customers in industrial, commercial, and residential markets. Our Emerson Automation Solutions business helps process, hybrid, and discrete manufacturers maximize production, protect personnel and the environment while optimizing their energy and operating costs. Our Emerson Commercial and Residential Solutions business helps ensure human comfort and health, protect food quality and safety, advance energy efficiency, and create sustainable infrastructure. For more information visit Emerson.com.