AF000400 & AF000400-HC
Combined Temperature Controller for Equipment Shelters
Direct Air Cooling + HVAC Cooling & Heating

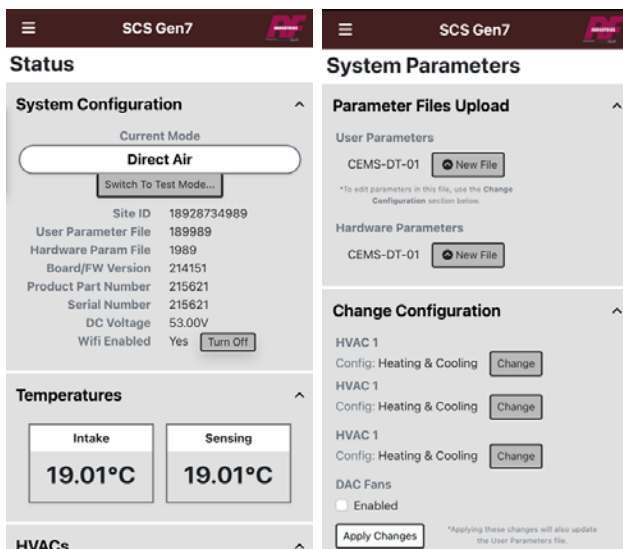**RF INDUSTRIES** / *Powered by* **schrofftech**

Revision: 1.2 July 2022

Features & benefits

- Cooling controller system provides total environmental control for equipment shelters
- Controls up to 3 DAC fans & 2 HVAC units (cool & heat) with lead/lag
- HC model controls up to 6 DAC fans & 4 HVACs
- Reduces HVAC compressor cycling to extend useful life and reduce maintenance costs
- Provides Site Alarms for High & Low Temp, DAC, HVAC or Controller Failure
- Backlit LCD provides system status and operating parameters, display buttons scroll through menus, status and test modes
- Ethernet connectivity for additional monitoring & alarming:
  - SNMP protocol and traps,
  - Built-in mobile friendly web interface for system status, parameter updates, firmware upload and troubleshooting. Cable and WiFi access.
- 48VDC powered. DAC power managed by controller for simplified wiring
- Inhibits DAC and HVACs during Smoke alarm
- Runs DAC and inhibits HVACs during H_2 alarm
- Disable/enable/limit # of HVACs operating when generator is running
- Compatible with AF000401 Wall DAC, AF000402 Door DAC and legacy AF000013 Door DAC (simple update kit required)

Web interface example views:

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CERTIFIED ISO 9001:2015 COMPANY

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Specifications		Notes
Temperature Range	-20F to 140F operating -40F to 158F storage	Configurable for Fahrenheit and Centigrade (°F / °C)
Input Voltage	36VDC to 60VDC	Transients up to 72VDC
Power consumption	10W max - Controller only 250W max - for each DAC fan output	5A breaker for Controller only, 20A breaker for 2 fans, 30A for 3 fans (x2 for HC model)
DAC fan interface	48VDC power + Tach + Speed drive	Up to 3 fans (up to 6 fans for HC model)
HVAC interface	24VAC isolated, RGWYC std wiring[1]	Up to 2 HVACs (up to 4 HVACs for HC model)
Alarm interface	Qty 10 dry contact Form C outputs	NC - Open on alarm std, NO configurable
System Inputs	Qty 3 Open/Closed inputs (must be isolated)	Smoke, Hydrogen and Generator inputs. Must be closed for normal operation.
Sensors inputs	Qty 2 temperature sensors Qty 1 Blocked Filter sensor Optional: Up to 3 temp/humidity sensors	Site temperature control sensor included in controller, blocked filter and second temperature sensor part of DAC system.
WiFi Access Point	- IEEE 802.11 b/g/n (2.4 GHz) - Security protocol: WPA/WPA2 Mixed - Access point only	Protocols: HTTP - Web Interface (HTTPS pending). WiFi enabled / disabled via web interface/display button. Expires after 1 hour.
Ethernet port	RJ45 Ethernet connector 10/100Mbps	Protocols: - HTTP - Web Interface (HTTPS pending) Telnet for Debugging Hardware ready for SNMPv3 (Firmware ready for SNMP v1 and v2c)
System display	2 lines x 16 characters + 7 buttons	Backlit display/buttons with 3 reporting LEDs
Wiring interface	½" & ¾" conduit	Standard conduit fitting knockouts
Flight Recorder	Up to 10 Months Temp & data logging	Real Time event log, run time, cycles & alarms log

[1] Optional interfaces available for other control types (e.g. high voltage, mini-split etc.)

Dimensions
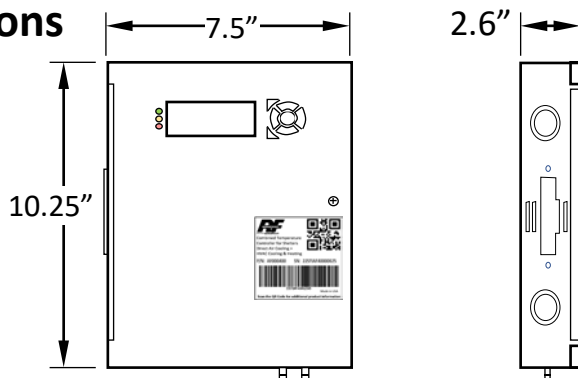
Overall dimensions: 10.25" x 7.5" x 2.6"

Weight: 4lbs

Color: Black
(other colors available upon request)

HC model uses an extension control box
(same dimensions – no display or buttons)

Standard factory terminated 66 Block
included for alarm punch down connections

US Patents: 8,313,038; 8,770,493 ; 10,670,315 ; 10,788,233 ; 11,079,161 ; 11,140,798 ; 11,324,145 and patents pending