

# ArcticFox Temperature & Air Defrost Control (pn 550005663) ArcticFox Temperature Control (pn 550005664)

#### Introduction

The ArcticFox Temperature & Air Defrost Control is designed to simplify refrigeration cooler controls by combining the functions of a thermostat and defrost timeclock.

The ArcticFox Temperature & Air Defrost Control designed for medium temperature applications 35°F and higher provides a built-in defrost clock that may be used to perform time-initiated and time-terminated defrost cycles. The controller's single-pole-double-throw relay controls the refrigeration and defrost cycles.

ArcticFox Temperature Control for low temperature application provides an easy-to-understand thermostat, which simplifies operation and eliminates end user frustration. The ArcticFox has been integrated to provide optimal performance, and includes a battery powered clock that will ensure of proper operation once power is restored.

## **Applications**





#### **Features**

- Thermostat
- · Off time defrost on schedule or custom defrost
- · Compressor protection Maximum starts per hour
- Manual defrost
- · 1st defrost 2 hrs after start up
- Visual Alarming High temp/Low temp/Sensor

### Service Call Saver - Post Defrost Indicator

To eliminate unnecessary/unwarranted service calls, the ArcticFox Temperature & Air Defrost Control (for Medium temp applications) alerts the user when it is coming out of a defrost cycle using the onboard display. The display alternates between dEF and the actual temperature measured by the air sensor. This continues until the temperature has reached setpoint, or for the amount of time set by dFt (Defrost Time) whichever is shorter.

#### **Hardware**

- Relay for solenoid / compressor
- 3 digit 7-segment display
- 4-button user interface
- Modbus terminals

The **space temperature sensor** is supplied with a 45 inch lead, and functions to control the space temperature of the room.

#### **Communications**

The ArcticFox Temperature & Air Defrost Control and the ArcticFox Temperature Control include RS-485 Modbus communication.

# **Specifications**

Controll	er							
Input Vo	ltage:	120V / 208-240V						
Storage Temp:		-13° to 120°F (-25° to 49°C)						
Operating Temp:		-40° to 120°F (-40° to 49°C)						
Display:		3 digit 7-segment LED						
IP Rating:		IP65						
Input:		1 temp. sensor (Replacement SKU 20199)						
		Normal	ly Open	Normally Closed				
Outputs		120V	240V	120V	240V			
(1) Relay Single Pole Double Throw	FLA	30A	30A	N/A	10A			
	LRA	98A	80A	20A	20A			
	Resistive	N/A	30A	N/A	30A			
	Horsepower	1hp	2hp	1/4hp	1/2 hp			
	Pilot Duty	800VA	720VA	290VA	360VA			
Communnications		RS-485 (Modbus)						
Tempera	ature Sensor							
Sensor Specs		-60° to 150°F (-51°C to 66°C) moisture resistant package						

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Indicator lights O Red light - Not used

Yellow light - non-critical alarm (system running)

**Green light** - compressor on

Green flashing - compressor waiting on timer to start/stop

- Access Setpoint mode by pressing and holding the ENTER button until tS (temperature setpoint) displays on the screen
- Use the A up and V down arrows to scroll through the available setpoints.
- Press ENTER to view the current setting.
- Use the A up and V to change the setpoint

  Press ENTER to move between the digits to accelerate the changes.
- Press ENTER and hold to confirm each setpoint change
- Press BACK to escape.

Setp	ooint	Description	Min.	Cooler Default	Preezer Default	Max.
	tS	Temperature Setpoint	-50°F	35° F	-10° F	100° F
	diF	Differential	1°	3.5° F	3.5° F	30° F
	CSH	Maximum Compressor Starts/Hour	5 (Off)*	0 (off)	0 (off)	10
	dPd	Defrost Per Day	0	4	0	12, CUS**
	dFt	Defrost Time	0 min	30	0	720 min
	HAO	High Alarm Offset	1°	10° F	10° F	10° F
	LAO	Low Alarm Offset	1°	5° F	5°F	10° F
	tAd	Temp Alarm Delay	1 min	60 min	60 min	180 min
	Adr	Mod Bus Address	1	1	1	247
	Unt	Units for temp display	FAH	FAH	FAH	CEL

## **Alarm Codes**

When the ArcticFox Controllers are in alarm, it notifies the user by illuminating the amber LED, and displays the appropriate Alarm Code:

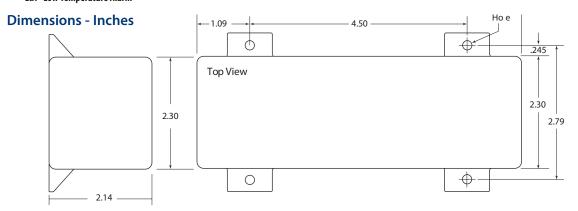
SSA - Shorted Sensor Alarm

OSA - Open Sensor Alarm

HtA - High Temperature Alarm

LtA - Low Temperature Alarm

\*Selecting fewer than 5 compressor starts per hour results in the starts per hour feature being turned off. The compressor will then function on temperature only. \*\* Selecting CUS (custom) unlocks additional Setpoints. See owner's manual for details.



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g product improvement may necessitate change of specifications without