

# A525 SERIES ELECTRONIC REFRIGERATION CONTROLLERS WITH ADAPTIVE DEFROST



Control what's important.

# THE FIRST REFRIGERATION CONTROLLER THAT SPEAKS YOUR LANGUAGE



## The smart way to control cold

What speaks to you? Most refrigeration controllers available today are simply plain vanilla. Now, we've expanded the possibilities. The innovative PENN A525 Series of Electronic Refrigeration Controllers with Adaptive Defrost combine multi-functionality in a smart controller. And it provides efficiency, ease of installation and use, application flexibility and network integration.

## Manage cooling, defrost, alarms, communications and costs

You get more flexibility to manage refrigeration and freezer performance. Control all aspects of refrigerated spaces and take advantage of:

- Five control relays for variable speed fans, compressor, defrost and alarms
- Two-speed fan control that reduces air flow in single compressor systems
- A wide range of options that allow you to customize control functions
- Simple programming to save installation time and reduce operation cost

## Plain language programming

Setting up and installing the A525 refrigeration controller doesn't require a degree in software engineering. The engineers at Johnson Controls have taken care of the back end, to make your job easier.

A scrolling alpha-numeric display provides walk-through instructions for each step of the setup process, telling you what needs to be programmed. It automatically indexes to the next programmable parameter. And you can assign a unique name to each controller in your system for easy identification.

The A525 refrigeration controller connects seamlessly to a control system and other equipment and devices that have embedded controls. It will self-discover

and communicate



with these Smart Equipment devices, enabling predictive diagnostics, improved energy efficiency and reduced operating costs.

## It knows when it's time to defrost

No other refrigeration controller offers this level of versatility. Set smart adaptive or time defrost cycles, depending on equipment needs. The adaptive control function "learns" your system, so it defrosts only when required, eliminating unnecessary defrost cycles and increasing energy efficiency.

## Plugged-in connectivity

Whether it's a Verasys™ controls system or a building automation system, the A525 refrigeration controllers seamlessly connect to it. Simply plug and play. They'll recognize the device with minimal commissioning. You then have the advantage of flexible remote monitoring and report generation to track complete system performance.



Easy Access USB Port



Temperature Defrost Smart Board



For nearly 100 years we've set the standard in refrigeration control

### Faster, quicker superheat control

The A525 refrigeration controllers communicate with the Quick Response Expansion Valve (QREV) and Precision Superheat Controller (PSHC) to simplify the monitoring and adjusting of superheat levels within the control menu. You can select any of 17 different refrigerants. The system sends alarms if superheat falls out of selected parameters and creates reports.



*Quick Response Expansion Valve (QREV) and Precision SuperHeat Controller (PSHC)*

### Keeps more than a system running - It keeps a business running

The A525 refrigeration controllers are also smart business tools. Because of their multi-functionality and control capabilities, they can have a positive impact on how your business operates. Users can select alarming for conditions specific to their application and equipment.

Besides high and low temperature alarms, other menu options include door open, man in room, refrigerant leaks, high pressure, and low pressure.

When connected to a BAS system, you can select from three delivery options – on screen, text or email – and two levels of alarming – warning or notification. Plus, as an essential part of food service operations, the A525 will automatically record food storage conditions, alarms and notifications, greatly simplifying HACCP monitoring and reporting.



PENN delivers a combination of worry-free dependability, unrivaled quality, adaptable technology and industry-leading expertise in refrigeration control. A combination no other brand can match. The A525 refrigeration controllers continue this tradition. Backed by Johnson Controls, the A525 refrigeration controllers deliver peace of mind and the freedom to control what's important in your world.

Plain language programming to reduce installation costs

Time-based or adaptive control based on your requirements

Meets Title 24 requirements for fan speed control to save energy



Superheat control for greater efficiency

Customized alarm and messaging maximizes performance

Remote connectivity provides improved control flexibility



*The A525 Series of Electronic Refrigeration Controllers with Adaptive Defrost*

# A525 SERIES

## ELECTRONIC REFRIGERATION CONTROLLERS WITH ADAPTIVE DEFROST

You can see how easy it is to program complex functions using the plain language menus.

### Main menu options

- SYSTEM STATUS
- SYSTEM SETUP
- REFRIGERATION SETUP
- DEFROST SETUP
- UNIVERSAL INPUTS
- ALARM SETUP
- FILE



Below is a simulated setup sequence for refrigeration, defrost and alarm.

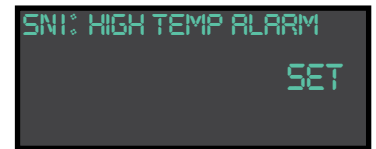
### REFRIGERATION SETUP SEQUENCE



### DEFROST SETUP SEQUENCE



### ALARM SETUP SEQUENCE



### Ordering information

DESCRIPTION	A525AEDN-0203C	A524AEDN-0203C	A525AEDR-0203C	A524AEDR-0203C
Relays	Compressor: 16A @ 120 VAC 8 A @ 240 VAC	Defrost: 24A @ 120 VAC 12A @ 240 VAC	Alarm: 9.8A @ 120 VAC 4.9A @ 240 VACC	Fan: 9.8A @ 120 VAC 4.9A @ 240 VAC
	AUX: 9.8A @ 120 VAC 4.9A @ 240 VAC		AUX: 9.8A @ 120 VAC 4.9A @ 240 VAC	
Sensors	1 - A99BB-200C, 1 - A99BB-300C			
Defrost Type	Off-Cycle, Electric or Hot gas			
Connectivity	Not Available		BACnet MSTP	

