CONTROL SYSTEMS
LACN Coldroom Controller

For mechanical expansion valve applications incorporating all common defrost types.

- Stand alone or networked product
- Registered for Enhanced Capital Allowance (ECA)
- Option to control liquid line valve or condensing unit
- Evaporator fan control
- Datalogging at board level
- Door switch input
- Plant alarm input
- Man trapped alarm input
- Set up parameters maintained for restart
- JTL PREDICT defrost enabled

Product Data

Temperature Control

LACN controls the coldroom temperature by measuring upto two air temperatures and operating a pulsed expansion valve, liquid line solenoid valve or condensing unit. The pulsed expansion valve is controlled using a pressure transducer and suction temperature sensor.

Defrost Control

Defrost can be initiated by JTL Network communications, external input or by real time clock within the controller. Self detect defrost is available when using gas defrost systems.

This controller supports JTL PREDICT (defrost on demand) and coordinated defrost scheduling.

In the event of a communications failure, the controller initiates a "learned defrost" strategy. Upto 12 defrosts per day can be scheduled.

Alarms

LACN will monitor and alarm on high temperature and if defrosts are not detected. Temperature alarms are inhibited during defrost and defrost recovery. The LACN monitors coldroom door operation and will alarm if a pre-defined door open delay period is exceeded. Alarm parameters and delay periods are configurable on site or remotely. Man trapped alarms can be monitored using the LACN.

Datalogging

Provides comprehensive alarm reporting and datalogging when connected to a JTL Network.

Display

Coldroom temperature, defrost and alarm messages can be indicated locally on a JTL display.

Remote Access

If operating within a JTL Network, alarm parameters and alarm settings can be viewed and adjusted remotely.

PRODUCT DATA

Hardware

Temperature sensor inputs 5
Temperature sensor types supported ..... 5 kohm NTC thermistor
Temperature display drives 1
Temperature display types ..... LED1 or LED5
Voltage-free contact outputs 5
Optically isolated high voltage inputs ..... 2 (240 V max)
Datalogging memory capacity ..... 800 points on 4 channels

Technical Specification

Temperature sensor input 1 ..... Air On
Temperature sensor input 2 ..... Air Off
Temperature sensor input 3 ..... Evaporator
Temperature sensor input 4 ..... Suction Line
Temperature sensor input 5 ..... Defrost termination

Output 1 ..... Pan heater control
Output 2 ..... Fan control
Output 3 ..... Suction valve control
Output 4 (changeover contact) ..... Defrost control
Output 5 (changeover contact) ..... Liquid solenoid valve control

Relay output rating (outputs 1-4) ..... 5 A resistive (240 V max)

Input 1 ..... Door Switch
Input 2 ..... Plant alarm, defrost input, man trapped, shutdown (selectable)

Communications port ..... RS485 2 wire
Communications data rate ..... 4800 baud
Communications protocol ..... JTL Jnet zone protocol

Unit dimensions unboxed (L x W x H) ..... 208 x 167 x 43 mm
Unit weight unboxed ..... 0.52 kg

Controller dimensions boxed (L x W x H) ..... 248 x 176 x 56 mm
Controller weight boxed ..... 1.56 kg

Power supply (standard) ..... 230 V 48-62 Hz

Ordering Information

LACN ..... Controller unboxed
LACN-B ..... Controller boxed

CE

This unit conforms with the relevant EU standards when fitted in accordance with its installation instructions.

Qualified for Energy Technology List

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PRODUCT DATA

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