

# ICM325HN, 326HN, 327HN HEAD PRESSURE CONTROLS



# with Optional Heat Pump Bypass

Helps prevent evaporator freeze-ups, liquid-slugged compressors, low pressure cutouts and overshoots seen with on/off & pressure switch controls.

#### ICM325HN



**Typical Application**Line Voltage (120/208/240/480 VAC)
Control Voltage (24 VAC)
Air Conditioning and Heat Pumps

## ICM326HN



**Typical Application**Line Voltage (120/208/240 VAC)
Air Conditioning and Refrigeration

#### ICM327HN



**Typical Application**Line Voltage (480 VAC)
Air Conditioning and Refrigeration

### **Features**

## Integral Heat Pump Bypass Circuitry

- Allows you to electronically bypass the speed control during heat pump operation
- Solid state 10 amp load carrying capability
- · Single unit controls up to 3 refrigerant circuits
- Multiple Voltage Ranges
  - (See specifications for details)

#### Hard Start

 Adjustable from .1-5 seconds; provides full torque to the motor during startup to help ensure proper fan rotation and lubrication of bearings

#### Low Speed Cutoff

 Field-adjustable; user may set the minimum RPM level at which the condenser fan should operate

#### · High Temperature Bypass

- Applies full voltage to the condenser fan under normal conditions
- Integral Transformer \*(ICM326HN/327HN models)
  - Simplifies installation, reduces cost; direct setup from the line voltage

### RoHs Compliant/Lead Free Design

- For global use

# **Applications**

### • Ideal for "Low Ambient" Conditions Found in:

- Supermarkets, frozen food storage
- Computer rooms, cooling tower fans
- Temperature/humidity-sensitive environments

## **Mode of Operation**

ICM Head Pressure Controls operate as temperature-sensitive motor fan speed controls. Head pressure is regulated during low ambient conditions by varying the amount of airflow through the condenser. This helps ensure sufficient pressure across the expansion valve, preventing costly downtime and/or loss of valuable perishable goods.

# **Specifications**

#### Input/Output Voltage

• ICM325HN: (Input: 18-30 VAC) (Input/Output: 120-480 VAC) ICM326HN: (Input/Output: 120/208/240 VAC)

ICM327HN: (Input/Output: 480 VAC)

• Frequency: 50/60 Hz

• Power Consumption: 4VA @ 24 VAC

#### Output

• Type: Solid State

• Form: Triac

Output Current: (maximum: 10 amps) (minimum: 100 mA)

• Frequency: 50/60 Hz

Voltage Drop: 3.0 volts maximum

· Leakage Current: 5 mA maximum

#### **Protection**

• Dielectric Breakdown: 2,500 volts maximum

• Insulation Resistance: 100 M

#### **Control Operating Temperature**

• Operating Temperature: -40°C to +75°C (-40°F to +176°F)

• Storage Temperature: -40°C to +85°C (-40°F to +185°F)

# Dimensions

• ICM325HN: 4<sup>3</sup>/4"L X 3<sup>3</sup>/16"W X 1<sup>1</sup>/8"H

• ICM326HN and ICM327HN: 4<sup>3</sup>/4"L X 3<sup>3</sup>/16"W X 1<sup>3</sup>/4"H

#### **Ordering Information**

• Standard Model ICM325HN: 120-480 VAC

• Models with Integral Transformers:

- ICM326HN: 120/208/240 VAC

- ICM327HN: 480 VAC

LIS118-2 All features and specifications subject to change without notice.





# **ICM325HN Typical Wiring Diagram for Systems without a Contactor**

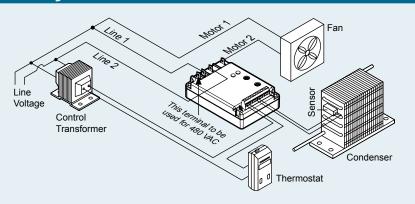
# ICM Sensor Probe Mounting Recommendations

## **High Efficiency Systems:**

 The sensor probe should be mounted up several bends into the condenser (upper 1/3 as shown at right), to more closely monitor the condensing temperature

### **Low Efficiency Systems:**

• The sensor may be placed directly on the liquid line



# ICM325HN Typical Wiring Diagram for Systems with a Contactor

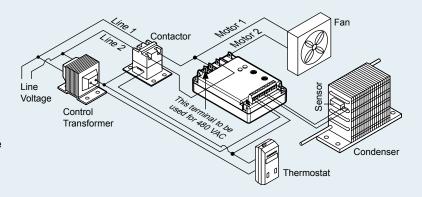
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## **ICM326HN Typical Wiring Diagram**

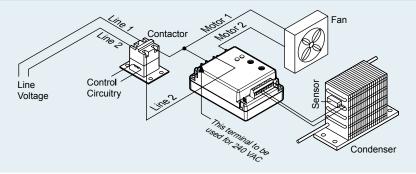
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## **ICM327HN Typical Wiring Diagram**

# ICM Sensor Probe Mounting Recommendations

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#### **Low Efficiency Systems:**

• The sensor may be placed directly on the liquid line

