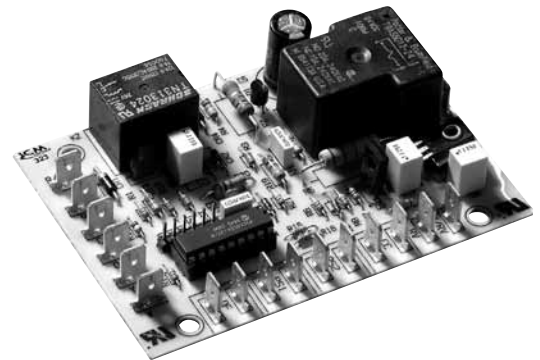# ICM323
DEFROST CONTROL

Ultra low cost heat pump defrost timer with high power relay outputs for 1/2 HP fan or strip heat...designed for systems with heat active reversing valves

The **ICM323** integrates multiple time and temperature defrost functions onto a low cost, conformally coated, open board package.

- **Heat active (B) reversing valve logic**
- **Sensor input for defrost terminate**
- **Time and temperature terminate**
- **10-minute fixed defrost time**
- **On-board test pins reduce test time by 256X**
- **Input accumulates actual compressor run time**
- **Pin-selectable: 30/60/90 minute defrost intervals**
- **Integral short cycle protection**
- c**RU**us **recognized**: **E118867**

Mode of Operation

The **ICM323** provides a selectable time interval between defrost cycles. It will allow heat for the selected 30/60/90 minute period and provide a 10-minute defrost. During defrost, the reversing valve will de-energize and the fan relay will open.

A high power output (1/2 HP fan @ 240 VAC) is available. Also included on the **ICM323** are strip heat and reversing valve outputs (24 VAC, 1 amp).

Each defrost control is shipped with detailed instructions.

Specifications

Input
- **Voltage:** 18-30 VAC
- **Power consumption:** 1 watt maximum
- **Frequency:** 50/60 Hz

Outputs
W
- **Type:** Relay
- **Form:** SPST, normally open
- **Rating:** 10 amps @ 24 VAC

RV, CC
- **Type:** Triac
- **Rating:** 1 amp @ 30 VAC

FAN
- **Type:** Relay
- **Form:** SPST, normally closed
- **Rating:** 10 amps @ 240 VAC

Time Delays
- **Defrost time:** Fixed at 10 minutes (± 5%)
- **Interval time between defrosts:** Pin-selectable 30/60/90 minutes
- **Power on reset time:** 0-5 seconds
- **Test time:** Short across test terminals (before applying power) reduces test time by 256x
- **Anti-short cycle:** 3 minutes

Mechanical
- **Dimensions:** 2.875" x 4"
- **Mounting:** Surface mount using (4) #6 or #8 screws
- **Sensor jump:** Short across SEN JMP thermistor and put in defrost mode
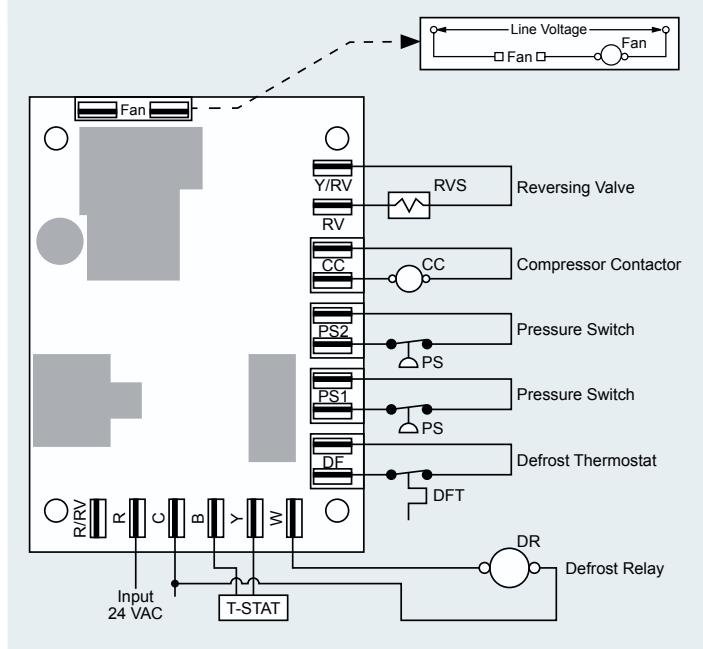
Environmental
- **Operating temperature:** -40°C to +75°C (-40°F to +167°F)

Transient Protection
- IEEE 587 Categories A&B without false output or degradation (6Kv 0.5µs x 100 Khz ring wave) (6Kv 1.2µs x 50 Khz impulse wave)

Wiring Diagram

Test Mode Times

Compressor Run Times		Defrost Time	
Actual Interval Time	**Equivalent Test Time**	**Actual Defrost Time**	**Equivalent Test Time**
30 minutes fixed	7.03 seconds	10 minutes fixed	2.34 seconds
60 minutes fixed	14.06 seconds	10 minutes fixed	2.34 seconds
90 minutes fixed	21.09 seconds	10 minutes fixed	2.34 seconds

Ordering Information

Part #	Product Code	Description
ICM323	AL1002	10-minute defrost, 30/60/90 minute intervals

All features and specifications subject to change without notice.