

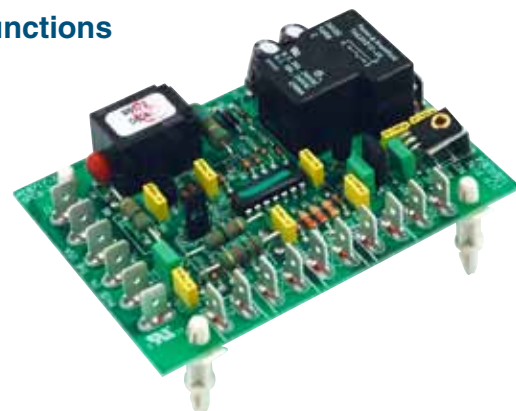
# ICM304 DEFROST CONTROL



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

The ICM304 integrates multiple time and temperature defrost functions onto a low cost, conformally coated, open board package.

- 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
- **UL** recognized: E118867



## Mode of Operation

The ICM304 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.

A high power output (1/2 HP fan @ 240 VAC) is available. Also included on the ICM304 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

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

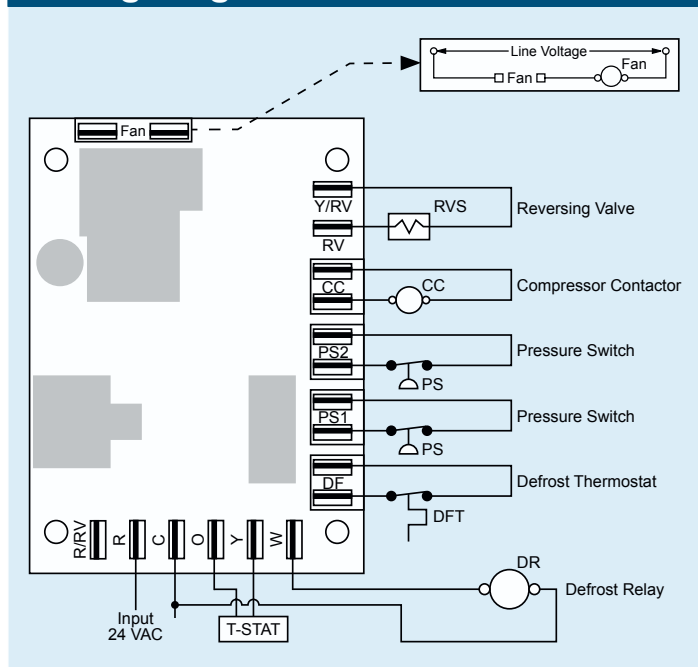
### Environmental

- 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
ICM304	AF1013	10 minute defrost, 30/60/90 minute intervals