

ICM3000 Demand Defrost Control



RV

APPLICATIONS:

APPLIANCE | ELECTRICAL |



OVERVIEW

The control will begin the 3 minute time delay upon a Y call from the thermostat. After the time delay expires; the compressor contactor will be energized as long as the high and low pressure switches are closed. If either switch is open after the delay expires; the compressor will not energize and the respective fault code is displayed. If the high pressure cutout (HPC) switch opens while the compressor is energized; the compressor will de-energize immediately and the 3 minute anti-short cycle delay begins.

The low pressure cutout (LPC) switch is bypassed for the first 90 seconds of compressor run time; if the low pressure switch remains open after the 90 second delay; the compressor will de-energize and the 3 minute anti-short cycle delay begins. The compressor will not be allowed to re-energize until the anti-short cycle delay expires and both pressure switches are closed.

If either pressure switch opens 3 times during the same Y call; the control will enter a hard lockout and flash the respective code.

REPLACES

Rheem: 1157-100, 1157-110, 1157-120, 1157-121, 47-102684-01, 47-102685-02, 47-102685-04, 47-102685-05, 47-102685-06, 47-102685-07, 47-21517-22, DDL-122131-2RH

HVAC/R | MARINE | POOL & SPA |

■ White Rodgers: 47D43-101-90, 47D43-111-01, 47D43-111-02, 47D43-111-03, 47D43-111-04, 47D43-811

FEATURES

- ✓ Heat active (B) reversing valve logic
- ✓ Sensor input for defrost terminate
- ✓ Time and temperature terminate
- ✓ 14-minute fixed defrost time
- ✓ On-board test pins
- ✓ Input accumulates actual compressor run time
- ✓ Pin-selectable: 50°F, 60°F, 70°F (factory default), 80°F defrost terminate
- ✓ Integral short cycle protection
- ✓ Certified to UL 60730-1 and CSA E60730-1:15

SPECIFICATIONS

INPUT

- **Voltage:** 18-30 VAC, 50/60Hz
- OAT (outdoor ambient sensor): 10kΩ @ 77°F
- OCT (outdoor coil sensor): 10kΩ @ 77°F

OUTPUT

- **CC (compressor contactor):** 1A, 24 VAC, pilot duty
- **RV (reversing valve):** 1A, 24 VAC, pilot duty
- **D** (auxiliary heat): 1A, 24 VAC, pilot duty
- Fan (outdoor fan): 2 FLA, 4 LRA, 120 VAC / 240 VAC

TIME DELAY

- Defrost: Fixed at 14 minutes
- Delay on make: 3 minutes
- Anti-short cycle delay: 3 minutes
- LPC (low pressure cutout):
 - Bypassed during the defrost cycle
 - Bypassed for the first 90 seconds of compressor run time
 - Bypassed for 90 seconds after the defrost cycle
- Operating temperature range: -22°F to 158°F (-30°C to 70°C)
- **Storage temperature range:** -40°F to 185°F (-40°C to 85°C)



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