

#### 4.10.4 Sequence Of operation - Frozen Mode Cooling

- With supply air temperature above set point and decreasing, the unit will transition to economized cooling with the condenser fan motor (CF), compressor motor (CH), economizer solenoid valve (ESV), low speed evaporator fan motors (ES) energized and the COOL light illuminated. (See Figure 4-7.)
- When the air temperature decreases to a predetermined tolerance above set point, the in-range light is illuminated.

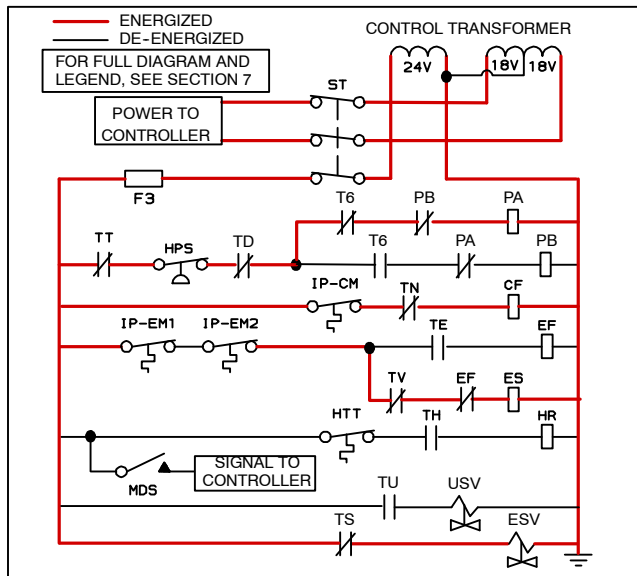


Figure 4-7 Frozen Mode

- When the return air temperature decreases to 0.2°C (0.4°F) below set point, contacts TD, TS and TN are opened to de-energize the compressor, economizer solenoid valve and condenser fan motors. The cool light is also de-energized.
- The evaporator fan motors continue to run in low speed to circulate air throughout the container. The in-range light remains illuminated as long as the return air is within tolerance of set point.
- When return air temperature is 10°C (18°F) or more below set point, the evaporator fans are brought to high speed.
- When the return air temperature increases to 0.2°C (0.4°F) above set point and the three minute off time has elapsed, relays TD, TS and TN are energized to restart the compressor and condenser fan motors. The cool light is illuminated.

#### 4.10.5 Sequence Of Operation - Defrost

The defrost cycle may consist of up to three distinct operations. The first is de-icing of the coil, the second is a probe check cycle and the third is snap freeze.

Defrost may be initiated by any one of the following methods:

- The manual defrost function (also manual defrost switch function if equipped) is initiated and ended by the user. Through the use of the keypad or manual defrost switch (if equipped).

#### NOTE

The Manual Defrost / Interval key can be used to initiate a manual defrost. Minimum Software release version #5126 is required in order for to use this function

Manual Defrost/Interval key operation:

Depressing and holding the Defrost Interval key for five (5) seconds will initiate defrost. If the defrost interval key is released in less than five (5) seconds, defrost interval (code 27) shall be displayed.

- The user sends a defrost command by communications.
- The defrost interval timer (controller function code Cd27) reaches the defrost interval set by the user.
- The controller probe diagnostic logic determines that a probe check is necessary based on the temperature values currently reported by the supply and return probes.
- If the controller is programmed with the Demand Defrost option (Future) and the option is set to "IN" the unit will enter defrost if it has been in operation for over 2.5 hours without reaching set point.

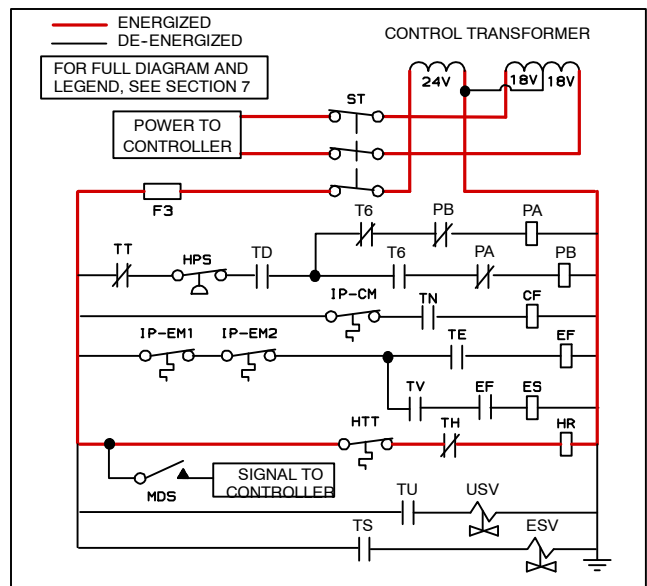


Figure 4-8 Defrost