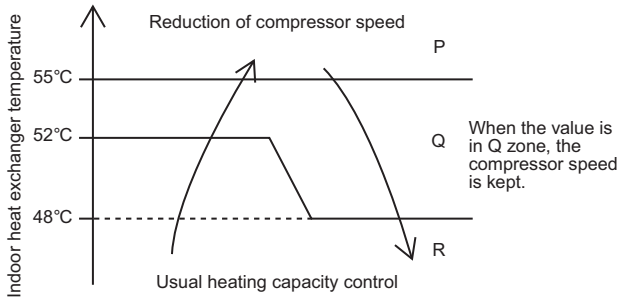
8-7-2. In heating operation

Prevent-overpressure control for refrigerating cycle

In heating operation, the sensor of indoor heat exchanger detects condensation temperature and controls the compressor speed so that temperature of the heat exchanger does not exceed the specified value.

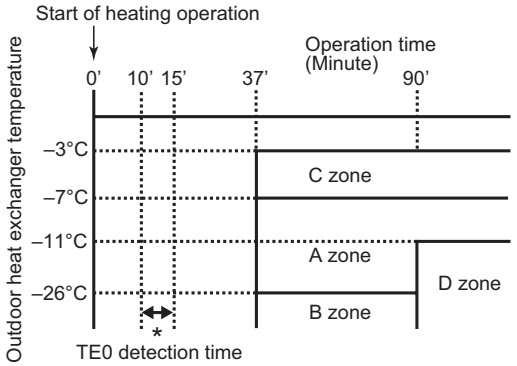


1) When temperature of the indoor heat exchanger rises in the range from 52°C to 55°C, the compressor speed is kept. (Q zone)
   When temperature of the indoor heat exchanger drops in the range from 48°C to under 55°C, the compressor speed is kept. (Q zone)
2) When temperature of the indoor heat exchanger rises to 55°C or higher, the compressor speed is reduced. (P zone)
3) When temperature of the indoor heat exchanger does not rise to 52°C, or when it drops below to 48°C, the capacity control operation returns to the usual control in heating operation. (R zone)

8-8. Defrost Control (Only in Heating Operation)

This function removes frost adhered to the outdoor heat exchanger.

The temperature sensor of the outdoor heat exchanger (TE sensor) judges the frosting status of the outdoor heat exchanger and the defrost operation is performed with 4-way valve reverse defrost system.



* The minimum value of TE sensor 10 to 15 minutes after start of operation is stored in memory as TE0.

Table 8-8-1

A zone	When TE0 - TE ≥ 2.5 continued for 2 minutes in A zone, defrost operation starts.
B zone	When the operation continued for 2 minutes in B zone, defrost operation starts.
C zone	When TE0 - TE ≥ 3 continued for 2 minutes in C zone, defrost operation starts.
D zone	When the operation get into D zone, defrost operation starts.

The necessity of defrost operation is detected by the outdoor heat exchanger temperature. The conditions to detect the necessity of defrost operation differ in A, B, C or D zone each. (Table 8-8-1)

8-8-1. Defrost Operation

Defrost operation in A to D zones

1) The compressor stops for 40 seconds.
2) The 4-way valve is switched to the cooling position 30 seconds after the compressor stops.
3) The outdoor fan stops at the same time when the compressor stops.
4) The indoor fan stops after temperature of the indoor heat exchanger becomes 38°C or lower.