Applications

This compressor range will perfectly fit various applications like:
- Laboratory and medical equipment
- Clip-on units and conditioning units
- Compressed air dryers
- Glass door merchandisers
- Bakery refrigeration equipment
- Ice cream machines
- Ice making machines
- Blast freezers
- Slush/frozen beverage makers
- Heat pumps
- Bottle coolers

Refrigeration Controls programme consists of:

<table>
<thead>
<tr>
<th>Hermetic filter dryer with solid core</th>
<th>Direct or semi operated solenoid valve</th>
<th>Sight glass with moisture indicator</th>
</tr>
</thead>
</table>

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Danfoss compressors.de

Production: Danfoss Compressors DEHC A/S, 02.07.07

Quick reference
## Hermetic Compressors type TF, TL, NF, MT, FF and SC

### R134a-R604A/R507 - 115 V - 60 Hz

<table>
<thead>
<tr>
<th>Model number</th>
<th>Motor type</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>TF, TL, NF, MT, FF and SC</td>
<td>Capacitor Start Run</td>
<td>3 = 103-127 V / 60 Hz, 2 = 103-135 V / 60 Hz, 1 = 103-127 V / 60 Hz</td>
</tr>
</tbody>
</table>

### Capacitor start run

- Capacitor start run is compulsory for R134a/LBP/MMP, R404A/R507 MBP and R604A/R507 MBP compressors.
- Capacitor start run is compulsory for R604A/LBP/MMP, R404A/R507 MBP and R604A/R507 MBP compressors.

### Starting devices

- **LST** is used with capillary tube control and pressure equalizing. (Pressure equalizing may exceed 3 psi.)
- **HST**: Capillary tube systems where non-equalized pressures may occur at compressor start, run capacitor 15 µF compulsory 3/16 inch spade connectors (Code number: 117-7120).
- **SLT**: Capillary tube systems where non-equalized pressures may occur at compressor start, run capacitor 15 µF compulsory 1/4 inch spade connectors (Code number: 117-7118).
- **TF, TL, TT**
- **NF, NT**

### Conformity to EN 60355-2-34

- The protection screen 103N0476 must be mounted to fulfil the requirements of EN 60355-2-34.

### Refrigerant characteristics

- R134a/LBP/MMP
- R404A/R507 MBP
- R604A/R507 MBP

### Condenser and evaporator temperatures

- Condensing temperature 120° F
- Suction gas temperature 90° F
- Ambient temperature 90° F
- (compressor compartment temp.)

### Motor types

- 115 V / 60 Hz
- 208-230 V / 60 Hz
- 460 V / 60 Hz

### Condensing temperature

- R134a/LBP/MMP 120° F
- R404A/R507 MBP 120° F
- R604A/R507 MBP 120° F

### Liquid temperature

- R134a/LBP/MMP 115° F
- R404A/R507 MBP 115° F
- R604A/R507 MBP 115° F

### Suction gas temperature

- R134a/LBP/MMP 95° F
- R404A/R507 MBP 95° F
- R604A/R507 MBP 95° F

### Applications

- **LBP**: Low Back Pressure
- **MBP**: Medium Back Pressure
- **HBP**: High Back Pressure

### Water type

- **NC**: Non Condensing, Indication Free
- **SW**: Condensing, Start Capacitor Free
- **3-Phase**: 3-Phase Start Capacitor Free
- **TF**: Tagged Free
- **407**: 407 Free
- **PP**: Pressure Port Free
- **NL**: No Line
- **ZT**: Zero Trip
- **ZS**: Zero Switch
- **W**: Water
- **C**: Compressor

### Legend for diagrams on next page

- **TF**: Freezing temperature
- **S**: Suction
- **C**: Capillary
- **X**: Exhause
- **P**: Pressure
- **S**: Static cooling normally sufficient
- **N**: Non-equalized pressure
- **F**: Freezing marks
- **L**:Liquid temperature
- **E**: Evaporator temperature

### Diagrams

- See diagram for TEC200R-118-127-60Hz and TEC200R-115V-60Hz
### Compressor Specifications

#### Key Features
- **Type:** FF-GK, FF-GK
- **Voltage:** 115 V / 60 Hz
- **Application:** R134a • R404A/R507
- **Capacity:** [inch] 2.00-0.75
- **Dimensions:** [inch] 6.50" x 2.76"

#### Electrical Equipment
- **Starting Relay:** 117-7441
- **Starting Capacitor:** 0.252 F

#### Compressor Characteristics
- **Liquid Temperature:** 115° F
- **Ambient Temperature:** 8.90"
- **Comparer:** 6.70"

#### Mounting Accessories
- **Bolt joint:** 0.202
- **Riveting:** 0.320
- **Screw:** 0.189

#### Compressor Types
- **TT, TL, TF, NF, MT, FF and SC**
- **Mounting:** 105G5921
- **Dimensions:** [inch] 8.90"

#### Refrigerant Compatibility
- **R134a**
- **R404A/R507**
- **Liquid Temperature:** 115° F
- **Ambient Temperature:** 90° F

#### Voltage and Frequencies
- **1 = 103-127 V, 60 Hz**
- **2 = Fan cooling 1.5 m/s**
- **3 = Fan cooling 3.0 m/s**

#### Mounting Considerations
- **Cabinet base**
- **Displacement**
- **Snap on**

### Table

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Capacity</th>
<th>Voltage</th>
<th>Frequency</th>
<th>Refrigerant</th>
<th>Liquid Temperature</th>
<th>Ambient Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>N1001</td>
<td>2.5</td>
<td>115</td>
<td>60</td>
<td>R134a</td>
<td>115° F</td>
<td>8.90&quot;</td>
</tr>
<tr>
<td>N1002</td>
<td>3.0</td>
<td>115</td>
<td>60</td>
<td>R404A/R507</td>
<td>115° F</td>
<td>8.90&quot;</td>
</tr>
<tr>
<td>N1003</td>
<td>3.5</td>
<td>115</td>
<td>60</td>
<td>R134a</td>
<td>115° F</td>
<td>8.90&quot;</td>
</tr>
<tr>
<td>N1004</td>
<td>4.0</td>
<td>115</td>
<td>60</td>
<td>R404A/R507</td>
<td>115° F</td>
<td>8.90&quot;</td>
</tr>
<tr>
<td>N1005</td>
<td>4.5</td>
<td>115</td>
<td>60</td>
<td>R134a</td>
<td>115° F</td>
<td>8.90&quot;</td>
</tr>
<tr>
<td>N1006</td>
<td>5.0</td>
<td>115</td>
<td>60</td>
<td>R404A/R507</td>
<td>115° F</td>
<td>8.90&quot;</td>
</tr>
</tbody>
</table>

#### Diagram

- **Start Relay:** 117-7441
- **Starting Capacitor:** 0.252 F
- **Mounting Accessories:** 105G5921
- **Snap on:** 118-1919

---

**Legend:**
- A: Electrical installation
- B: Control panel
- C: Mounting device
- D: Refrigerant type
- E: Protection
- F: Oil level
- G: Oil level
- H: Oil level
- I: Oil level
- J: Oil level
- K: Oil level
- L: Oil level
- M: Oil level
- N: Oil level
- O: Oil level
- P: Oil level
- Q: Oil level
- R: Oil level
- S: Oil level
- T: Oil level
- U: Oil level
- V: Oil level
- W: Oil level
- X: Oil level
- Y: Oil level
- Z: Oil level

---

**Note:**
- The diagrams illustrate various components and their connections in the compressor system.
- The table provides detailed specifications for different model numbers.
- Diagrams are used to demonstrate snap-on options and mounting configurations.

---

**References:**
### Electrical Equipment

- **Run Capacitor:** 10 µF, compulsory; 1/4 inch spade connectors (Code number: 117-7121)
- **Oil Cooling:** Optional

### Components

- **Run Capacitor:** 10 µF, compulsory; 1/4 inch spade connectors (Code number: 117-7121)
- **Oil Cooling:** Optional

### Capacitor rating

- **Run Capacitor:** 10 µF, compulsory; 1/4 inch spade connectors (Code number: 117-7121)
- **Oil Cooling:** Optional

### Compressor cooling

- **R404A/R507:** Compressor cooling is suitable for oil-cooled compressors. A cooling arrangement is needed for operation on the oil-cooled compressor.

### Condensing temperature

- **117U4148:** Condensing temperature 130° F

### Suction gas temperature

- **117U3302:** Suction gas temperature 90° F

### Applications

- **PL:** 103-127 V, 60 Hz

### Features

- **Low Back Pressure (LBP):** Low starting torque
- **2.76":** An optimized displacement is stated. For PL = 103-127 V, 60 Hz, 0.80 = 103-127 V, 60 Hz, 0.70 = 103-127 V, 60 Hz.
Applications

This compressor range will perfectly fit various applications like:
- Laboratory and medical equipment
- Clip-on units and condensing units
- Compressed air dryers
- Glass door merchandisers
- Bakery refrigeration equipment
- Ice cream cabinets
- Display cabinets
- Vending machines
- Soft ice cream machines
- Ice making machines
- Blast freezers
- Slush/frozen beverage makers
- Heat pumps
- Bottle coolers

Refrigeration Controls programme consists of:

- Hermetic filter drier with solid core
- Direct or servo operated solenoid valve
- Sight glass with moisture indicator

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