**General**

| Code number (without electronic units) | 101Z0405 |
| Electronic unit - Telecom | 101N0732, 36 pcs: 101N0733 |
| Approvals | UL |
| Compressors on pallet | 150 |

**Application**

| Application | LBP/MBP/HBP |
| Evaporating temperature °C | -25 to 15 |
| Voltage range VDC | 32 - 60 |
| Max. condensing temperature continuous (short) °C | 60 (70) |
| Max. winding temperature continuous (short) °C | 125 (135) |

**Cooling requirements**

| Application | LBP MBP HBP |
| 32°C | S S S |
| 38°C | S S S |
| 43°C | S S F1 |

**Motor**

| Motor type | variable speed |
| Resistance, all 3 windings (25°C) Ω | 1.03 |

**Design**

| Displacement cm³ | 2.50 |
| Oil quantity (type) cm³ | 150 (polyester) |
| Maximum refrigerant charge g | 300 |
| Free gas volume in compressor cm³ | 870 |
| Weight - Compressor/Electronic unit kg | 4.4/0.24 |

**Battery protection settings**

| Voltage | Min. value | Default | Max. value |
| Cut out (0.1 steps) VDC | 32 | 36 | 60 |
| Cut in diff. (0.1 steps) VDC | 0.5 | 4.0 | 10.0 |

**Dimensions**

| Height mm | A 137 |
| B 135 |
| B1 128 |
| B2 73 |
| Suction connector | L/D. mm | angle C 6.2 | 40° |
| material | comment | Cu-plated steel | Al cap |
| Process connector | L/D. mm | angle D 6.2 | 45° |
| material | comment | Cu-plated steel | Al cap |
| Discharge connector | L/D. mm | angle E 5.0 | 21° |
| material | comment | Cu-plated steel | Al cap |
| Connector tolerance | I.D. mm | ±0.09, on 5.0 ±0.12/+0.20 |

**Remarks:**

- Clearance between electronic unit and baseplate does not allow the snap-on option for mounting.

---

**BD250GH.2 Direct current Compressor R134a, 48V DC**

- **Code number & serial number barcode on white background**
- **Grey background**
- **Country of origin or manufacturer**

**Motor**

- **Motor type:** variable speed
- **Resistance, all 3 windings (25°C):** 1.03 Ω

**Design**

- **Displacement:** 2.50 cm³
- **Oil quantity (type):** 150 cm³ (polyester)
- **Maximum refrigerant charge:** 300 g
- **Free gas volume in compressor:** 870 cm³
- **Weight - Compressor/Electronic unit:** 4.4 kg / 0.24 kg

**Battery protection settings**

- **Voltage:**
  - Cut out (0.1 steps) VDC: 32 V, 36 V, 60 V
  - Cut in diff. (0.1 steps) VDC: 0.5 V, 4.0 V, 10.0 V

**Dimensions**

- **Height:** 137 mm, 135 mm, 128 mm, 73 mm
- **Suction connector:** L/D. mm 6.2, angle 40°
  - Material: Cu-plated steel, Cap: Al cap
- **Process connector:** L/D. mm 6.2, angle 45°
  - Material: Cu-plated steel, Cap: Al cap
- **Discharge connector:** L/D. mm 5.0, angle 21°
  - Material: Cu-plated steel, Cap: Al cap
- **Connector tolerance:** I.D. mm ±0.09, on 5.0 ±0.12/+0.20

**Remarks:**

- Clearance between electronic unit and baseplate does not allow the snap-on option for mounting.
### Capacity (EN 12900 Household/CECOMAF)

- **53V DC, fan cooling F1**
- **watt rpm °C**
- **-25** -23.3 -20 -15 -10 -6.7 -5 0 5 7.2 10 15
- **2,500** 31.4 36.6 47.2 65.5 87.0 103 112 144 224 246 275 333
- **3,100** 42.9 49.1 62.1 84.8 112 132 144 181 224 246 275 408
- **3,800** 55.0 62.4 78.3 106 139 165 179 224 277 303 337 408
- **4,400** 64.3 72.8 91.1 124 162 191 208 261 322 352 392 472

### Capacity (ASHRAE LBP)

- **53V DC, fan cooling F1**
- **watt rpm °C**
- **-25** -23.3 -20 -15 -10 -6.7 -5 0 5 7.2 10 15
- **2,500** 40.1 46.3 59.3 81.8 108 129 140 177 222 243 273 334
- **3,100** 54.0 61.6 77.6 106 139 164 178 225 279 306 342 416
- **3,800** 68.7 77.9 97.4 132 173 204 222 279 345 377 421 509
- **4,400** 80.0 89.5 113 153 201 237 257 323 384 421 509 693

### Power consumption

- **53V DC, fan cooling F1**
- **watt rpm °C**
- **-25** -23.3 -20 -15 -10 -6.7 -5 0 5 7.2 10 15
- **2,500** 40.8 44.1 50.1 58.5 66.0 70.4 72.5 78.5 83.9 86.1 88.7 93.1
- **3,100** 46.5 50.1 57.0 66.9 76.5 82.6 85.7 94.7 103 107 112 121
- **3,800** 58.2 62.2 70.0 81.7 93.7 102 106 119 132 137 145 159
- **4,400** 72.4 76.7 85.3 98.8 113 122 128 143 160 167 177 267

### Current consumption

- **53V DC, fan cooling F1**
- **A rpm °C**
- **-25** -23.3 -20 -15 -10 -6.7 -5 0 5 7.2 10 15
- **2,500** 0.78 0.86 1.01 1.23 1.43 1.55 1.60 1.75 1.87 1.91 1.95 1.98
- **3,100** 0.65 0.74 0.90 1.14 1.38 1.52 1.59 1.79 1.97 2.04 2.12 2.23
- **3,800** 0.87 0.96 1.13 1.40 1.67 1.85 1.94 2.20 2.45 2.55 2.68 2.89
- **4,400** 1.36 1.45 1.64 1.93 2.24 2.55 2.86 3.17 3.30 3.47 3.76 3.97

### COP (EN 12900 Household/CECOMAF)

- **53V DC, fan cooling F1**
- **W/W rpm °C**
- **-25** -23.3 -20 -15 -10 -6.7 -5 0 5 7.2 10 15
- **2,500** 0.77 0.83 0.94 1.12 1.32 1.47 1.55 1.82 2.12 2.27 2.47 2.87
- **3,100** 0.92 0.98 1.09 1.27 1.46 1.60 1.67 1.91 2.17 2.29 2.45 2.74
- **3,800** 0.94 1.00 1.12 1.30 1.49 1.62 1.68 1.89 2.11 2.21 2.33 2.57
- **4,400** 0.89 0.95 1.07 1.25 1.44 1.56 1.63 1.82 2.10 2.21 2.41 2.67

### COP (ASHRAE LBP)

- **53V DC, fan cooling F1**
- **W/W rpm °C**
- **-25** -23.3 -20 -15 -10 -6.7 -5 0 5 7.2 10 15
- **2,500** 0.98 1.05 1.19 1.41 1.66 1.84 1.95 2.28 2.67 2.86 3.12 3.63
- **3,100** 1.16 1.23 1.37 1.59 1.83 2.00 2.09 2.39 2.72 2.87 3.07 3.45
- **3,800** 1.18 1.25 1.40 1.62 1.85 2.01 2.10 2.36 2.64 2.76 2.92 3.22
- **4,400** 1.10 1.18 1.33 1.55 1.79 1.94 2.02 2.27 2.51 2.62 2.76 3.02

### Operational errors

<table>
<thead>
<tr>
<th>Error code</th>
<th>Error type</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Thermostat failure (the NTC thermistor is short-circuit or has no connection, the electronic unit will enter manual mode).</td>
</tr>
<tr>
<td>5</td>
<td>Thermal cut-out of electronic unit (if the refrigeration system has been too heavily loaded, or if the ambient temperature is high, the electronic unit will run too hot).</td>
</tr>
<tr>
<td>4</td>
<td>Minimum motor speed error (if the refrigeration system is too heavily loaded, the motor cannot maintain minimum speed at approximately 1,850 rpm).</td>
</tr>
<tr>
<td>3</td>
<td>Motor start error (the rotor is blocked or the differential pressure in the refrigeration system is too high).</td>
</tr>
<tr>
<td>2</td>
<td>Fan over-current cut-out (the fan loads the electronic unit with more than 1.8A).</td>
</tr>
<tr>
<td>1</td>
<td>Battery protection cut-out (the voltage is outside the cut-out setting).</td>
</tr>
</tbody>
</table>

### Accessories for BD250GH.2

- **Mounting Code number**
- **Bolt joint for one compressor Ø: 16 mm 118-1917**
- **Bolt joint in quantities Ø: 16 mm 118-1918**
- **Electrical (cables, sensors, etc.) Code number**
- **Single pack I - Pack**
  - **DC line cord, 900 mm 105N9542 105N9543, 36 pcs.**
  - **DC line cord, 2000 mm 105N9540 105N9541, 36 pcs.**
  - **DC line cord, 5000 mm 105N9538 105N9539, 36 pcs.**
  - **Temperature sensor 470 mm 105N9612 105N9613, 200 pcs.**
  - **Temperature sensor 1000 mm 105N9614 105N9615, 100 pcs.**
  - **Temperature sensor 1500 mm 105N9616 105N9617, 100 pcs.**
  - **One Wire/LIN gateway 105N9501 –**
  - **Comm. cable, 1500 mm – 105N9545, 100 pcs.**
  - **Comm. cable, 3000 mm – 105N9547, 50 pcs.**

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed.

All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.