**Model**
**NL7.3MF**

Sales code:
**105G6776**

## Compressor Data

| | |
|---|---|
| Refrigerant(s) | **R134a / R513A** |
| Refr. charge - tech. limit | **600g / 21.16oz** |
| Weight | **10.00 kg / 22.05lbs** |
| Displacement | **7.27 cm3 / 0.44cu.in** |
| Compressors on pallet | **80** |

## General – Configurations With NL7.3MF

| – | **Conf. 1** | **Conf. 2** |
|---|---|---|
| Motor configuration | CSIR | CSIR |
| Power supply (nominal) | 220-240 V/50 Hz | 208-230 V/60 Hz |
| Number of phases | 1 | 1 |
| Voltage range | 187-254 V | 187-254 V |
| Approvals | VDE, UL, CCC, EAC | VDE, UL, CCC, EAC |
| Starting torque | HST | HST |
| Refrigerant | R134a | R134a |
| Application | MBP | LBP+MBP |
| Long interval pull down | OK | OK |

## Application Notes

- Electrical equipment is included and pre-assembled to compressor.
- Provision for PE Grounding is located at the PE Stamp on the compressor

**Model**
**NL7.3MF**

Sales code:
**105G6776**

## Compressor Design

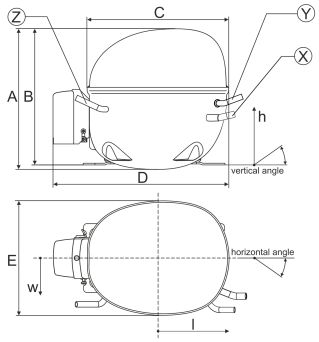
| | | | |
|---|---|---|---|
| Oil type | **POE** | Winding resistance main | **8.3 Ohm** |
| Oil viscosity | **32cSt** | Winding resistance aux | **11.8 Ohm** |
| Oil quantity | **268 / 9.06fl.oz** | Max. winding temp. | **125 °C** |
| Free gas volume comp. | **2,360 cm3 / 79.80fl.oz** | Max. discharge temp. | **130°C / 266°F** |
| Motor protection | **internal** | | |

## Compressor Dimensions

**Housing**

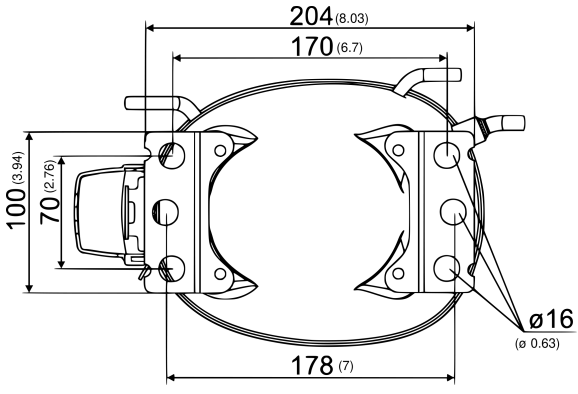
| | |
|---|---|
| A Height | **197mm / 7.76in** |
| B Height | **191mm / 7.52in** |
| C Length shell | **205mm / 8.07in** |
| D Length w. cover | **254mm / 10.00in** |
| E Width | **166mm / 6.54in** |

Find 3D Model here



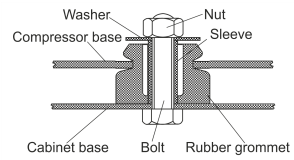

| Connectors | Suction X | Discharge Y | Process Z |
|---|---|---|---|
| Diameter [mm] | øi 8.11–8.29 / 0.32–0.33in | øi 6.11–6.29 / 0.24–0.25in | øi 6.11–6.29 / 0.24–0.25in |
| Material | CU | CU | CU |
| Horizontal angle ±2° | 0° | 0° | 0° |
| Vertical angle ±2° | 15° | 35° | 155° |
| Position l/h/w [mm] | 125.5/75.5/78 / 4.94/2.97/3.07in | 133/102.5/54 / 5.24/4.04/2.13in | -107/93.5/72 / -4.21/3.68/2.83in |
| Straight tube l. [mm] | 12 / 0.47in | 12 / 0.47in | 12 / 0.47in |

## Mounting Accessories

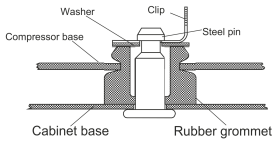



Dimensions in mm [in]

Bolt joint




Snap-on




| | one comp. | multi pack |
|---|---|---|
| Bolt joint \| M6 \| ø16mm | 118-1917 | 118-1918 |
| Bolt joint \| ø1/4" \| ø16mm | 118-1946 | – |
| Snap-on \| ø7,3 \| ø16mm | 118-1947 | 118-1919 |

**Model**
**NL7.3MF** Configuration 1

Sales code:
**105G6776**

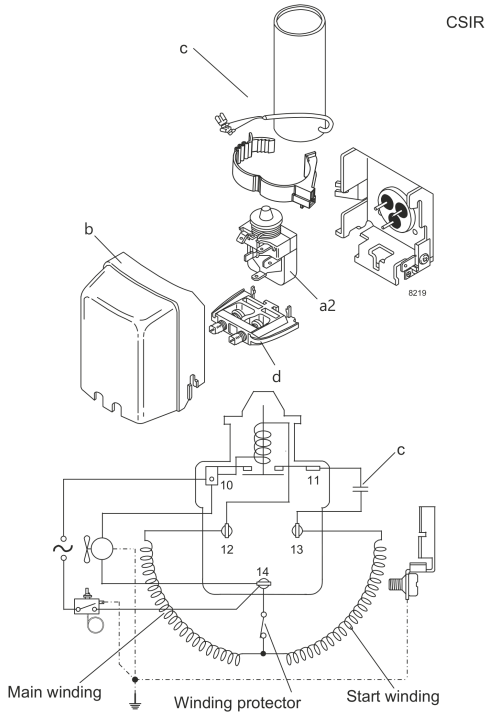
## Configuration

| | |
|---|---|
| Motor configuration | **CSIR** |
| Power supply (nominal) | **220-240 V/50 Hz 1~** |
| Refrigerant | **R134a** |
| Application | **MBP** |
| Voltage range | **187-254 V** |
| Starting torque | **HST** |
| Approvals | **VDE, UL, CCC, EAC** |
| Starting device type | **relay** |
| Run capacitor | **-/-** |
| Start capacitor | **80 µF** |
| LRA (locked rotor amps / 4s/ U(N)) | **10.2 A** |
| RLA (rated load amps / 1s/ U(N)) | **2.1 A** |
| Cut in current (U(N)) | **15.1 A** |

**Ambient/ machine room temperatures minimum /maximum**
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

**System Cooling**
fan 3m/s

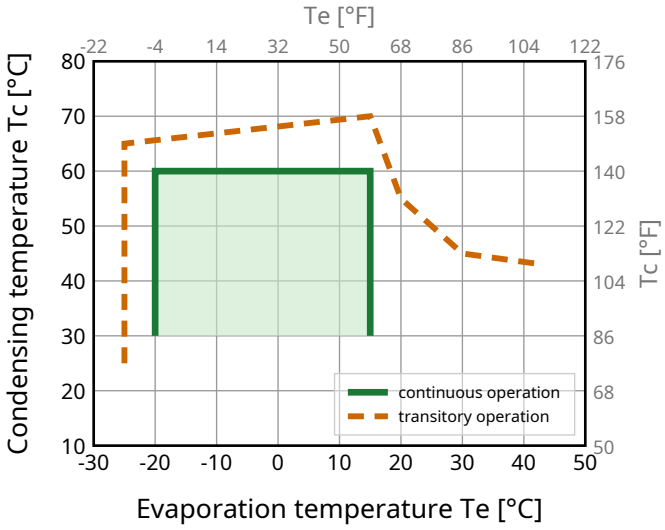
## Electrical Accessories / Wiring Diagram

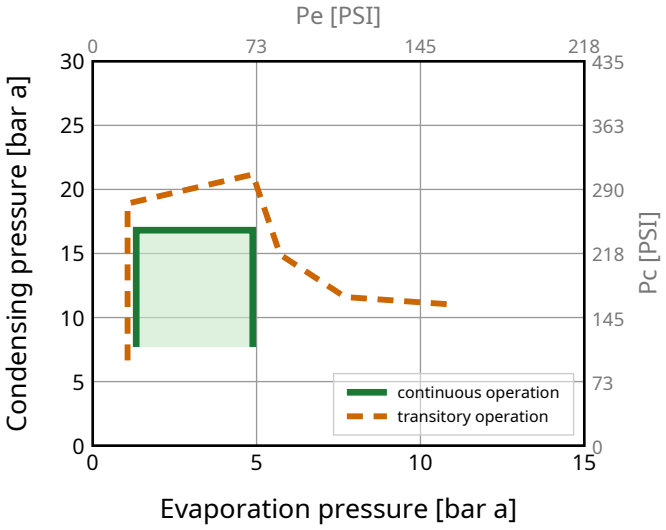



View full size

**Components (already pre-assembled)**
**a2** relay 117U6016
**c** start capacitor (80µF) 117U5015
**b** plastic cover 103N2011
**d** cord relief 103N1010

## Operation Pressure Range



**Model**
**NL7.3MF** Configuration 1

Sales code:
**105G6776**

## Standard Conditions

**R134a**, 220 V/50 Hz, CSIR, fan 3m/s

| pe | pc | RGT | Tliq | Cooling capacity | | | COP | EER | P | I | ṁ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [°C] [°F] | [°C] [°F] | [°C] [°F] | [°C] [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A] | [kg/h] | |
| -23.3 -10 | 54.4 129.9 | 32.2 90 | 32.2 90 | **182** | 621 | 156 | **1.09** | 3.73 | 166 | 1.55 | 3.53 | **ASHRAE LBP** |
| -25 -13 | 55 131 | 32 89.6 | 55 131 | **132** | 450 | 113 | **0.83** | 2.84 | 159 | 1.54 | 3.14 | **CECOMAF LBP** |
| -35 -31 | 40 104 | 20 68 | 40 104 | **87** | 297 | 75 | **0.74** | 2.52 | 118 | 1.56 | 1.90 | **EN12900 LBP** |
| -6.7 20 | 54.4 129.9 | 35 95 | 46.1 115 | **394** | 1344 | 339 | **1.63** | 5.58 | 241 | 1.71 | 8.58 | **ASHRAE MBP** |
| -10 14 | 55 131 | 32 89.6 | 55 131 | **304** | 1038 | 262 | **1.34** | 4.58 | 227 | 1.67 | 7.33 | **CECOMAF MBP** |
| -10 14 | 45 113 | 20 68 | 45 113 | **348** | 1186 | 299 | **1.62** | 5.52 | 215 | 1.64 | 8.11 | **EN12900 MBP** |

## Performance Tables

**R134a**, 220 V/50 Hz, CSIR, fan 3m/s

**pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F**

| pe | | Cooling capacity | | | COP | EER | P | I | ṁ |
|---|---|---|---|---|---|---|---|---|---|
| [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A] | [kg/h] |
| -20 | -4 | **215** | 735 | 185 | **1.22** | 4.17 | 176 | 1.56 | 4.67 |
| -15 | 5 | **281** | 960 | 242 | **1.44** | 4.91 | 195 | 1.59 | 6.12 |
| -10 | 14 | **360** | 1229 | 310 | **1.68** | 5.72 | 215 | 1.64 | 7.86 |
| -5 | 23 | **453** | 1547 | 390 | **1.93** | 6.59 | 235 | 1.69 | 9.95 |
| 0 | 32 | **563** | 1921 | 484 | **2.20** | 7.51 | 256 | 1.76 | 12.42 |
| 5 | 41 | **690** | 2355 | 594 | **2.49** | 8.48 | 278 | 1.84 | 15.33 |
| 10 | 50 | **837** | 2856 | 720 | **2.78** | 9.48 | 301 | 1.94 | 18.73 |
| 15 | 59 | **1005** | 3428 | 864 | **3.08** | 10.50 | 327 | 2.04 | 22.70 |

**pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| -20 | -4 | **179** | 612 | 154 | **0.99** | 3.37 | 182 | 1.57 | 4.29 |
| -15 | 5 | **236** | 806 | 203 | **1.16** | 3.95 | 204 | 1.61 | 5.67 |
| -10 | 14 | **304** | 1038 | 262 | **1.34** | 4.58 | 227 | 1.67 | 7.33 |
| -5 | 23 | **385** | 1313 | 331 | **1.54** | 5.25 | 250 | 1.74 | 9.32 |
| 0 | 32 | **480** | 1637 | 413 | **1.75** | 5.98 | 274 | 1.82 | 11.70 |
| 5 | 41 | **590** | 2015 | 508 | **1.98** | 6.75 | 298 | 1.91 | 14.51 |
| 10 | 50 | **719** | 2453 | 618 | **2.21** | 7.56 | 325 | 2.02 | 17.81 |
| 15 | 59 | **867** | 2957 | 745 | **2.46** | 8.39 | 352 | 2.14 | 21.69 |

**Model**
**NL7.3MF** Configuration 2

Sales code:
**105G6776**

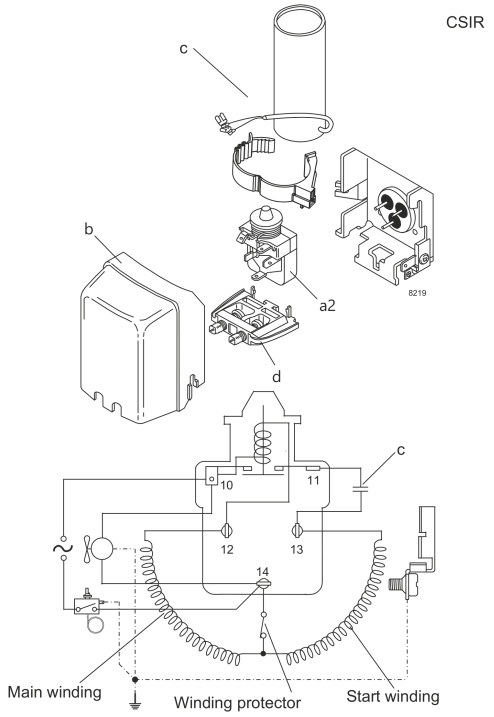
## Configuration

| | |
|---|---|
| Motor configuration | **CSIR** |
| Power supply (nominal) | **208-230 V/60 Hz 1~** |
| Refrigerant | **R134a** |
| Application | **LBP+MBP** |
| Voltage range | **187-254 V** |
| Starting torque | **HST** |
| Approvals | **VDE, UL, CCC, EAC** |
| Starting device type | **relay** |
| Run capacitor | **-/-** |
| Start capacitor | **80 µF** |
| LRA (locked rotor amps / 4s/ U(N)) | **10.2 A** |
| RLA (rated load amps / 1s/ U(N)) | **2.1 A** |
| Cut in current (U(N)) | **15.1 A** |

**Ambient/ machine room temperatures minimum /maximum**
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

**System Cooling**
fan 1,5m/s

## Electrical Accessories / Wiring Diagram




View full size

**Components (already pre-assembled)**
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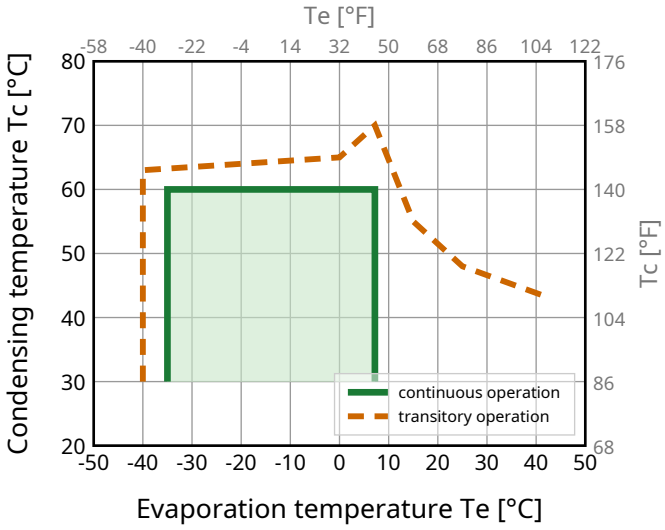
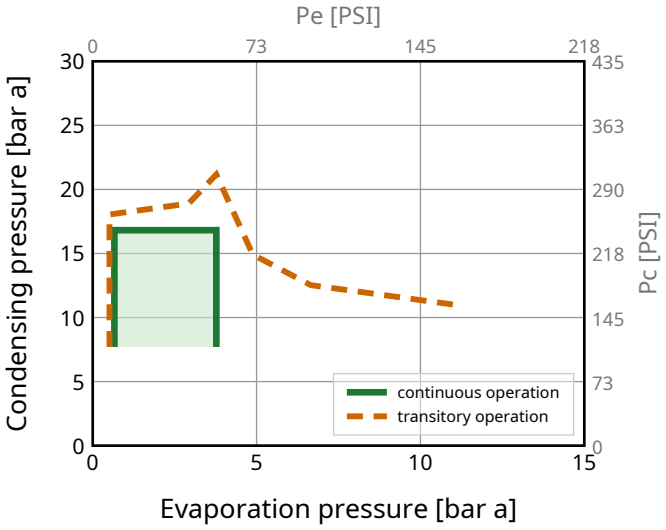
**c** start capacitor (80µF) 117U5015
**b** plastic cover 103N2011
**d** cord relief 103N1010

## Operation Pressure Range



**Model**
**NL7.3MF** Configuration 2

Sales code:
**105G6776**

## Standard Conditions

**R134a**, 220 V/60 Hz, CSIR, fan 1,5m/s

| pe | pc | RGT | Tliq | Cooling capacity | | | COP | EER | P | I | ṁ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [°C] [°F] | [°C] [°F] | [°C] [°F] | [°C] [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A] | [kg/h] | |
| -23.3 -10 | 54.4 129.9 | 32.2 90 | 32.2 90 | **220** | 751 | 189 | **1.19** | 4.06 | 185 | 1.34 | 4.27 | **ASHRAE LBP** |
| -25 -13 | 55 131 | 32 89.6 | 55 131 | **159** | 544 | 137 | **0.92** | 3.13 | 174 | 1.30 | 3.80 | **CECOMAF LBP** |
| -35 -31 | 40 104 | 20 68 | 40 104 | **117** | 401 | 101 | **0.92** | 3.15 | 127 | 1.19 | 2.57 | **EN12900 LBP** |
| -6.7 20 | 54.4 129.9 | 35 95 | 46.1 115 | **470** | 1604 | 404 | **1.58** | 5.41 | 297 | 1.75 | 10.24 | **ASHRAE MBP** |
| -10 14 | 55 131 | 32 89.6 | 55 131 | **363** | 1239 | 312 | **1.32** | 4.50 | 275 | 1.66 | 8.75 | **CECOMAF MBP** |
| -10 14 | 45 113 | 20 68 | 45 113 | **418** | 1425 | 359 | **1.60** | 5.47 | 261 | 1.61 | 9.74 | **EN12900 MBP** |

## Performance Tables

**R134a**, 220 V/60 Hz, CSIR, fan 1,5m/s

**pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F**

| pe | | Cooling capacity | | | COP | EER | P | I | ṁ |
|---|---|---|---|---|---|---|---|---|---|
| [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A] | [kg/h] |
| -35 | -31 | **105** | 359 | 91 | **0.86** | 2.92 | 123 | 1.16 | 2.27 |
| -30 | -22 | **148** | 505 | 127 | **0.99** | 3.38 | 149 | 1.23 | 3.19 |
| -20 | -4 | **264** | 900 | 227 | **1.29** | 4.41 | 204 | 1.40 | 5.72 |
| -10 | 14 | **433** | 1476 | 372 | **1.66** | 5.66 | 261 | 1.61 | 9.45 |
| 0 | 32 | **669** | 2282 | 575 | **2.11** | 7.19 | 318 | 1.85 | 14.76 |
| 7.2 | 45 | **889** | 3033 | 764 | **2.48** | 8.47 | 358 | 2.04 | 19.81 |

**pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| -35 | -31 | **73** | 249 | 63 | **0.67** | 2.27 | 110 | 1.11 | 1.74 |
| -30 | -22 | **112** | 384 | 97 | **0.80** | 2.72 | 141 | 1.20 | 2.68 |
| -20 | -4 | **216** | 735 | 185 | **1.04** | 3.55 | 207 | 1.41 | 5.16 |
| -10 | 14 | **363** | 1239 | 312 | **1.32** | 4.50 | 275 | 1.66 | 8.75 |
| 0 | 32 | **570** | 1943 | 490 | **1.65** | 5.64 | 344 | 1.94 | 13.89 |
| 7.2 | 45 | **763** | 2604 | 656 | **1.94** | 6.60 | 394 | 2.16 | 18.81 |