

# NL6.1MF

## Standard Compressor

### R134a

### 220-240V 50Hz & 208-230V 60Hz

#### General

|                       |                      |
|-----------------------|----------------------|
| Code number           | 105G6660             |
| Approvals             | EN 60335-2-34, UL984 |
| Compressors on pallet | 80                   |

#### Application

| Application                                    | MBP |           |            |  |
|--|-----|-----------|------------|--|
|  | Hz  | 50        | 60         |  |
| Frequency                                      | Hz  | 50        | 60         |  |
| Evaporating temperature                        | °C  | -20 to 15 | -35 to 7.2 |  |
| Voltage range                                  | V   | 187 - 254 | 198 - 254  |  |
| Max. condensing temperature continuous (short) | °C  | 60 (70)   | 60 (70)    |  |
| Max. winding temperature continuous (short)    | °C  | 125 (135) | 125 (135)  |  |

#### Cooling requirements

| Frequency | Hz | 50  |                |                | 60             |                |     |
|-----------|----|-----|----------------|----------------|----------------|----------------|-----|
|           |    | LBP | MBP            | HBP            | LBP            | MBP            | HBP |
| 32°C      |    | -   | F <sub>1</sub> | F <sub>1</sub> | F <sub>1</sub> | F <sub>1</sub> | -   |
| 38°C      |    | -   | F <sub>1</sub> | F <sub>1</sub> | F <sub>1</sub> | F <sub>1</sub> | -   |
| 43°C      |    | -   | F <sub>1</sub> | F <sub>1</sub> | F <sub>1</sub> | F <sub>1</sub> | -   |

Remarks on application: F<sub>2</sub> for 230-240V 50Hz nominal below -12°C evaporating temp. CSIR strongly recommended for 60Hz

#### Motor

| Motor type                                | RSIR/CSIR |             |
|---|-----------|-------------|
| LRA (rated after 4 sec. UL984), HST   LST | A         | 9.2   8.0   |
| Cut in Current, HST   LST                 | A         | 9.2   12.2  |
| Resistance, main   start winding (25°C)   | Ω         | 10.2   16.4 |

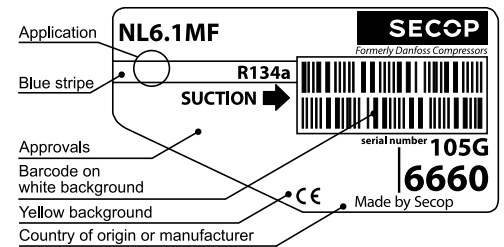
#### Design

|                                     |                 |                   |
|-------------------------------------|-----------------|-------------------|
| Displacement                        | cm <sup>3</sup> | 6.13              |
| Oil quantity (type)                 | cm <sup>3</sup> | 320 (polyolester) |
| Maximum refrigerant charge          | g               | 600               |
| Free gas volume in compressor       | cm <sup>3</sup> | 2360              |
| Weight without electrical equipment | kg              | 10.5              |

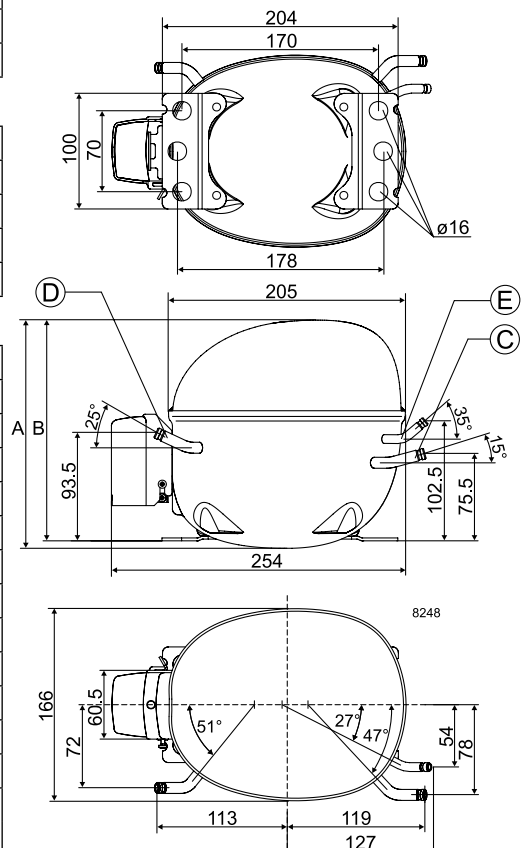
#### Dimensions

|                      |                          |    |                          |
|----------------------|--------------------------|----|--------------------------|
| Height               | mm                       | A  | 190                      |
|                      |                          | B  | 184                      |
|                      |                          | B1 | -                        |
|                      |                          | B2 | -                        |
| Suction connector    | location/I.D. mm   angle | C  | 8.2   15°                |
|                      | material   comment       |    | Cu-plated steel   Al cap |
| Process connector    | location/I.D. mm   angle | D  | 6.2   25°                |
|                      | material   comment       |    | Cu-plated steel   Al cap |
| Discharge connector  | location/I.D. mm   angle | E  | 6.2   35°                |
|                      | material   comment       |    | Cu-plated steel   Al cap |
| Oil cooler connector | location/I.D. mm   angle | F  | -                        |
|                      | material   comment       |    | -                        |
| Connector tolerance  | I.D. mm                  |    | ±0.09                    |

Remarks:



- S = Static cooling normally sufficient
- O = Oil cooling
- F<sub>1</sub> = Fan cooling 1.5 m/s (compressor compartment temperature equal to ambient temperature)
- F<sub>2</sub> = Fan cooling 3.0 m/s necessary
- SG = Suction gas cooling normally sufficient
- = not applicable in this area



**EN 12900 Household (CECOMAF)** 220V, 50Hz, fan cooling F<sub>1</sub>

|                    |     |     |     |     |     |       |      |      |      |      |      |      |      |      |      |      |    |
|--------------------|-----|-----|-----|-----|-----|-------|------|------|------|------|------|------|------|------|------|------|----|
| Evap. temp. in °C  | -45 | -40 | -35 | -30 | -25 | -23.3 | -20  | -15  | -10  | -6.7 | -5   | 0    | 5    | 7.2  | 10   | 15   | 20 |
| Capacity in W      |     |     |     |     |     |       | 141  | 189  | 245  | 288  | 312  | 390  | 482  | 527  | 588  | 709  |    |
| Power cons. in W   |     |     |     |     |     |       | 150  | 169  | 187  | 200  | 206  | 224  | 243  | 252  | 263  | 283  |    |
| Current cons. in A |     |     |     |     |     |       | 1.35 | 1.39 | 1.43 | 1.46 | 1.48 | 1.54 | 1.60 | 1.63 | 1.67 | 1.75 |    |
| COP in W/W         |     |     |     |     |     |       | 0.94 | 1.12 | 1.31 | 1.44 | 1.51 | 1.74 | 1.98 | 2.09 | 2.24 | 2.51 |    |

**EN 12900 Household (CECOMAF)** 220V, 60Hz, fan cooling F<sub>1</sub>

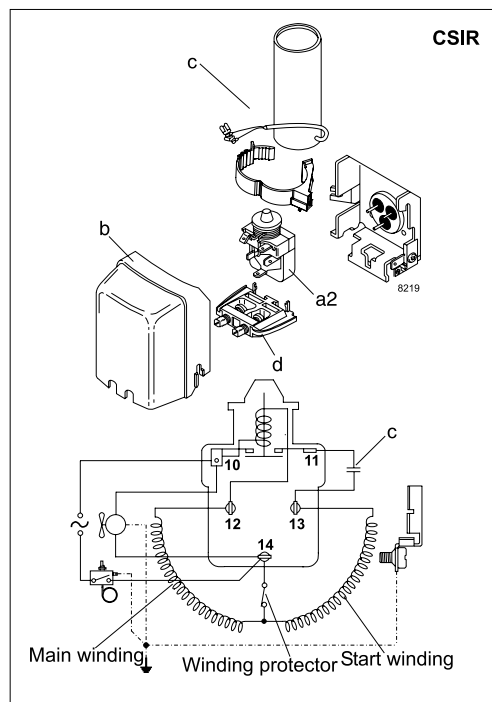
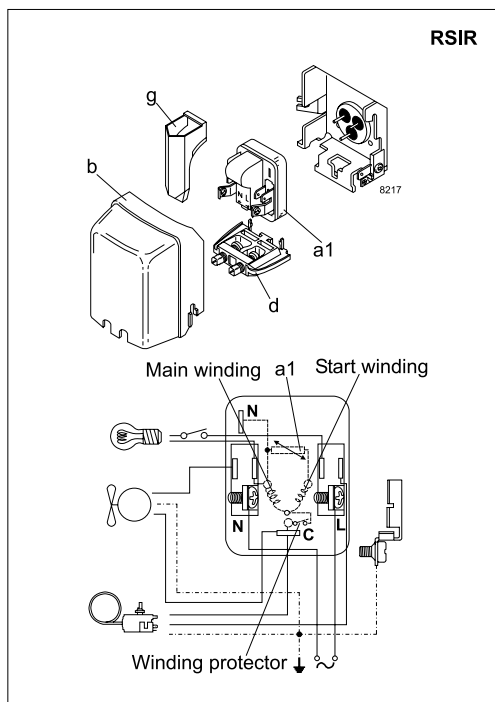
|                    |     |     |      |      |      |       |      |      |      |      |      |      |      |      |    |    |    |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|------|------|------|------|----|----|----|
| Evap. temp. in °C  | -45 | -40 | -35  | -30  | -25  | -23.3 | -20  | -15  | -10  | -6.7 | -5   | 0    | 5    | 7.2  | 10 | 15 | 20 |
| Capacity in W      |     |     | 43   | 77   | 117  | 132   | 165  | 223  | 292  | 344  | 374  | 470  | 581  | 636  |    |    |    |
| Power cons. in W   |     |     | 78   | 105  | 132  | 141   | 160  | 189  | 218  | 237  | 247  | 276  | 306  | 319  |    |    |    |
| Current cons. in A |     |     | 0.91 | 0.99 | 1.08 | 1.11  | 1.17 | 1.26 | 1.37 | 1.44 | 1.48 | 1.60 | 1.73 | 1.78 |    |    |    |
| COP in W/W         |     |     | 0.55 | 0.73 | 0.89 | 0.94  | 1.03 | 1.18 | 1.34 | 1.45 | 1.51 | 1.70 | 1.90 | 2.00 |    |    |    |

**ASHRAE MBP** 220V, 50Hz, fan cooling F<sub>1</sub>

|                    |     |     |     |     |     |       |      |      |      |      |      |      |      |      |      |      |    |
|--------------------|-----|-----|-----|-----|-----|-------|------|------|------|------|------|------|------|------|------|------|----|
| Evap. temp. in °C  | -45 | -40 | -35 | -30 | -25 | -23.3 | -20  | -15  | -10  | -6.7 | -5   | 0    | 5    | 7.2  | 10   | 15   | 20 |
| Capacity in W      |     |     |     |     |     |       | 156  | 209  | 271  | 318  | 345  | 432  | 533  | 582  | 650  | 784  |    |
| Power cons. in W   |     |     |     |     |     |       | 150  | 168  | 187  | 199  | 205  | 224  | 242  | 251  | 261  | 281  |    |
| Current cons. in A |     |     |     |     |     |       | 1.35 | 1.39 | 1.43 | 1.46 | 1.48 | 1.54 | 1.60 | 1.63 | 1.67 | 1.75 |    |
| COP in W/W         |     |     |     |     |     |       | 1.04 | 1.24 | 1.45 | 1.60 | 1.68 | 1.93 | 2.20 | 2.32 | 2.48 | 2.78 |    |

**ASHRAE MBP** 220V, 60Hz, fan cooling F<sub>1</sub>

|                    |     |     |      |      |      |       |      |      |      |      |      |      |      |      |    |    |    |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|------|------|------|------|----|----|----|
| Evap. temp. in °C  | -45 | -40 | -35  | -30  | -25  | -23.3 | -20  | -15  | -10  | -6.7 | -5   | 0    | 5    | 7.2  | 10 | 15 | 20 |
| Capacity in W      |     |     | 49   | 86   | 130  | 147   | 183  | 247  | 323  | 381  | 414  | 520  | 643  | 703  |    |    |    |
| Power cons. in W   |     |     | 79   | 105  | 132  | 142   | 160  | 188  | 217  | 236  | 246  | 275  | 304  | 317  |    |    |    |
| Current cons. in A |     |     | 0.92 | 0.99 | 1.08 | 1.11  | 1.17 | 1.26 | 1.37 | 1.44 | 1.48 | 1.60 | 1.72 | 1.78 |    |    |    |
| COP in W/W         |     |     | 0.62 | 0.82 | 0.98 | 1.04  | 1.15 | 1.31 | 1.49 | 1.62 | 1.68 | 1.89 | 2.12 | 2.22 |    |    |    |



| Accessories for           | NL6.1MF                 | Figure | Code number |
|---------------------------|-------------------------|--------|-------------|
| PTC starting device       | 6.3 mm spade connectors | a1     | 103N0011    |
|                           | 4.8 mm spade connectors |        | 103N0018    |
| Starting relay            | 6.3 mm spade connectors | a2     | 117U6015    |
| Start. capacitor 80 µF    | 6.3 mm spade connectors | c      | 117U5015    |
| Cover                     |                         | b      | 103N2011    |
| Cord relief               |                         | d      | 103N1010    |
| Protection screen for PTC |                         | g      | 103N0476    |

| Test conditions         | EN 12900/CECOMAF | ASHRAE |
|-------------------------|------------------|--------|
| Condensing temperature  | 55°C             | 54.4°C |
| Ambient temperature     | 32°C             | 35°C   |
| Suction gas temperature | 32°C             | 35°C   |
| Liquid temperature      | no subcooling    | 46.1°C |

| Mounting accessories     |          | Code number |
|--------------------------|----------|-------------|
| Bolt joint for one comp. | Ø: 16 mm | 118-1917    |
| Bolt joint in quantities | Ø: 16 mm | 118-1918    |
| Snap-on in quantities    | Ø: 16 mm | 118-1919    |

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