

NL10MF Standard Compressor R134a 220-240V 50Hz & 208-230V 60Hz

General

| | |
|-----------------------|---------------------------|
| Code number | 105G6885 |
| Approvals | EN 60335-2-34, UL984, CCC |
| 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 ₁ | F ₁ | F ₁ | F ₁ | - |
| 38°C | | - | F ₁ | F ₁ | F ₁ | F ₁ | - |
| 43°C | | - | F ₁ | F ₁ | F ₁ | F ₁ | - |

Remarks on application: F₂ for 230-240V 50Hz nominal below -12°C evaporating temp.
CSIR strongly recommended for 60Hz

Motor

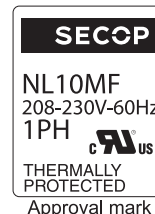
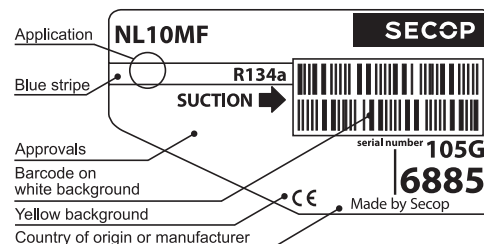
| Motor type | RSIR/CSIR | |
|---|-----------|-------------|
| LRA (rated after 4 sec. UL984), HST LST | A | 16.1 13.1 |
| Cut in Current, HST LST | A | 16.1 17.1 |
| Resistance, main start winding (25°C) | Ω | 6.1 17.5 |

Design

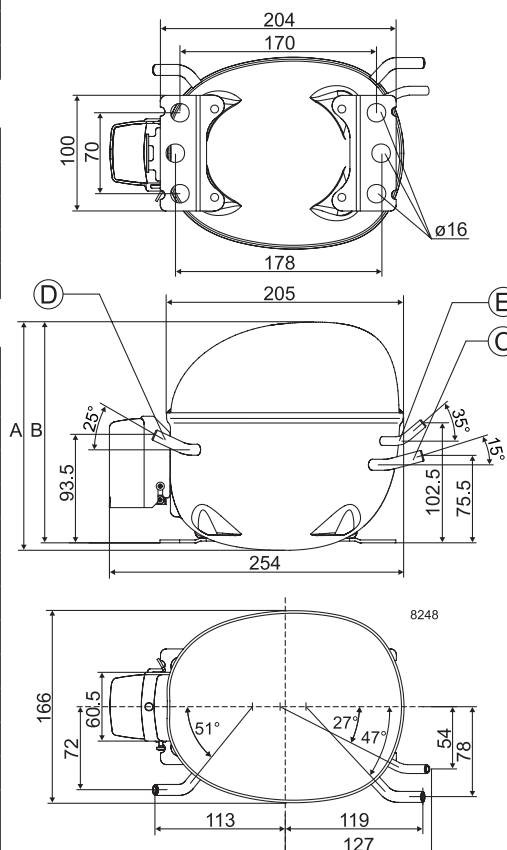
| | | |
|-------------------------------------|-----------------|-------------------|
| Displacement | cm ³ | 10.10 |
| Oil quantity (type) | cm ³ | 300 (polyolester) |
| Maximum refrigerant charge | g | 600 |
| Free gas volume in compressor | cm ³ | 2360 |
| Weight without electrical equipment | kg | 10.5 |

Dimensions

| | | | |
|----------------------|--------------------------|----|----------------------|
| Height | mm | A | 203 |
| | | B | 197 |
| | | B1 | - |
| | | B2 | - |
| Suction connector | location/I.D. mm angle | C | 8.2 15° |
| | material comment | | Copper Rubber plug |
| Process connector | location/I.D. mm angle | D | 6.2 25° |
| | material comment | | Copper Rubber plug |
| Discharge connector | location/I.D. mm angle | E | 6.2 35° |
| | material comment | | Copper Rubber plug |
| 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
- F₁ = Fan cooling 1.5 m/s (compressor compartment temperature equal to ambient temperature)
- F₂ = 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 F₁

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|-----|-------|------|------|------|------|------|------|------|------|------|------|----|
| 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 | | | | | | | 266 | 346 | 441 | 513 | 554 | 687 | 843 | 919 | 1023 | 1231 | |
| Power cons. in W | | | | | | | 251 | 286 | 323 | 347 | 360 | 397 | 435 | 451 | 472 | 509 | |
| Current cons. in A | | | | | | | 2.06 | 2.15 | 2.25 | 2.33 | 2.37 | 2.50 | 2.65 | 2.72 | 2.81 | 2.98 | |
| COP in W/W | | | | | | | 1.06 | 1.21 | 1.37 | 1.48 | 1.54 | 1.73 | 1.94 | 2.04 | 2.17 | 2.42 | |

EN 12900 Household (CECOMAF) 220V, 60Hz, fan cooling F₁

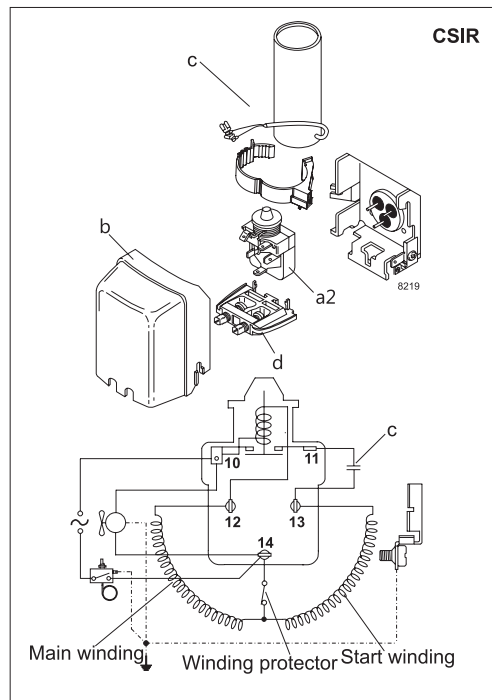
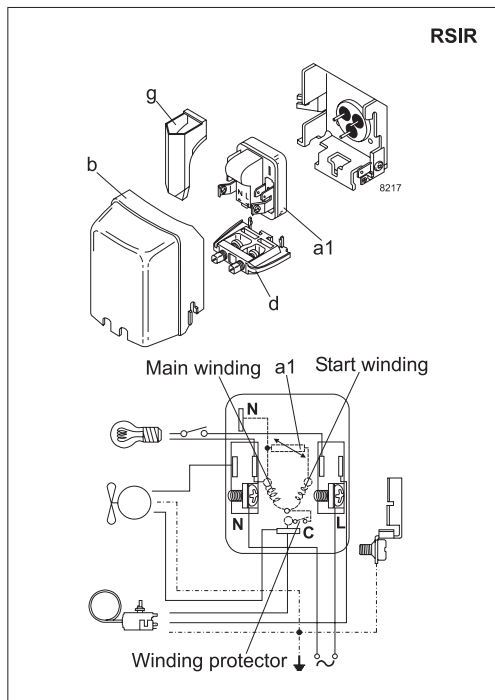
| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|------|------|------|------|----|----|----|
| Evap. temp. in °C | -45 | -40 | -35 | -30 | -25 | -23.3 | -20 | -15 | -10 | -6.7 | -5 | 0 | 5 | 7.2 | 10 | 15 | 20 |
| Capacity in W | | | 109 | 166 | 233 | 258 | 312 | 406 | 518 | 603 | 650 | 807 | 989 | 1079 | | | |
| Power cons. in W | | | 143 | 187 | 232 | 248 | 278 | 325 | 373 | 405 | 421 | 470 | 518 | 540 | | | |
| Current cons. in A | | | 1.44 | 1.57 | 1.71 | 1.76 | 1.87 | 2.03 | 2.21 | 2.34 | 2.40 | 2.60 | 2.82 | 2.91 | | | |
| COP in W/W | | | 0.76 | 0.89 | 1.00 | 1.04 | 1.12 | 1.25 | 1.39 | 1.49 | 1.54 | 1.72 | 1.91 | 2.00 | | | |

ASHRAE MBP 220V, 50Hz, fan cooling F₁

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|-----|-------|------|------|------|------|------|------|------|------|------|------|----|
| 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 | | | | | | | 293 | 382 | 487 | 567 | 611 | 758 | 930 | 1014 | 1129 | 1359 | |
| Power cons. in W | | | | | | | 251 | 286 | 322 | 346 | 358 | 396 | 433 | 449 | 470 | 506 | |
| Current cons. in A | | | | | | | 2.06 | 2.15 | 2.25 | 2.33 | 2.37 | 2.50 | 2.64 | 2.71 | 2.81 | 2.90 | |
| COP in W/W | | | | | | | 1.17 | 1.33 | 1.51 | 1.64 | 1.71 | 1.92 | 2.15 | 2.26 | 2.40 | 2.68 | |

ASHRAE MBP 220V, 60Hz, fan cooling F₁

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|------|------|------|------|----|----|----|
| 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 | | | 122 | 184 | 258 | 285 | 344 | 448 | 571 | 665 | 718 | 890 | 1092 | 1190 | | | |
| Power cons. in W | | | 144 | 188 | 232 | 248 | 278 | 325 | 372 | 403 | 419 | 467 | 515 | 536 | | | |
| Current cons. in A | | | 1.44 | 1.57 | 1.71 | 1.76 | 1.87 | 2.03 | 2.21 | 2.33 | 2.39 | 2.59 | 2.81 | 2.90 | | | |
| COP in W/W | | | 0.84 | 0.98 | 1.11 | 1.15 | 1.24 | 1.38 | 1.53 | 1.65 | 1.71 | 1.90 | 2.12 | 2.22 | | | |



| Accessories for | NL10MF | 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 | 117U6022 |
| Start. capacitor 125 µF | 6.3 mm spade connectors | c | 117U5018 |
| 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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