

PLE50F Energy-optimized Compressor R134a 220-240V 50Hz

General

| | |
|-----------------------|----------|
| Code number | 101G0221 |
| Approvals | – |
| Compressors on pallet | 150 |

Application

| Application | MBP | | |
|--|-----|-----------|----|
| | Hz | 50 | 60 |
| Frequency | Hz | 50 | 60 |
| Evaporating temperature | °C | -25 to 0 | – |
| Voltage range | V | 198 - 254 | – |
| Max. condensing temperature continuous (short) | °C | 60 (70) | – |
| Max. winding temperature continuous (short) | °C | 125 (135) | – |

Cooling requirements

| Frequency | Hz | 50 | | | 60 | | |
|-------------------------|----|-----|-----|-----|-----|-----|-----|
| | | LBP | MBP | HBP | LBP | MBP | HBP |
| 32°C | | – | S | – | – | – | – |
| 38°C | | – | S | – | – | – | – |
| 43°C | | – | – | – | – | – | – |
| Remarks on application: | | | | | | | |

Motor

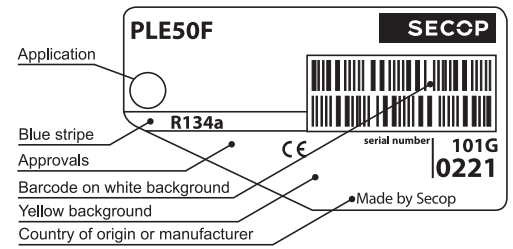
| Motor type | RSCR | | |
|---|------|------|------|
| LRA (rated after 4 sec. UL984), HST LST | A | – | 1.4 |
| Cut in Current, HST LST | A | – | 5.1 |
| Resistance, main start winding (25°C) | Ω | 47.0 | 24.0 |

Design

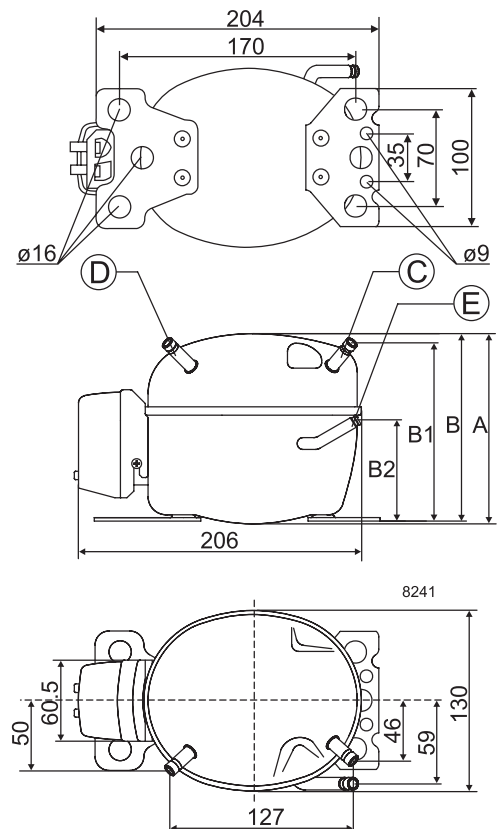
| | | |
|-------------------------------------|-----------------|-------------------|
| Displacement | cm ³ | 2.50 |
| Oil quantity (type) | cm ³ | 150 (polyolester) |
| Maximum refrigerant charge | g | 300 |
| Free gas volume in compressor | cm ³ | 870 |
| Weight without electrical equipment | kg | 4.8 |

Dimensions

| | | | |
|----------------------|--------------------------|---------------------------|-----------|
| Height | mm | A | 140 |
| | | B | 138 |
| | | B1 | 131 |
| | | B2 | 73 |
| Suction connector | location/I.D. mm angle | C | 6.2 40° |
| | material comment | Cu-plated steel Al cap | |
| Process connector | location/I.D. mm angle | D | 6.2 45° |
| | material comment | Cu-plated steel Al cap | |
| Discharge connector | location/I.D. mm angle | E | 5.0 21° |
| | 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, on 5.0 +0.12/+0.20 | |
| 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

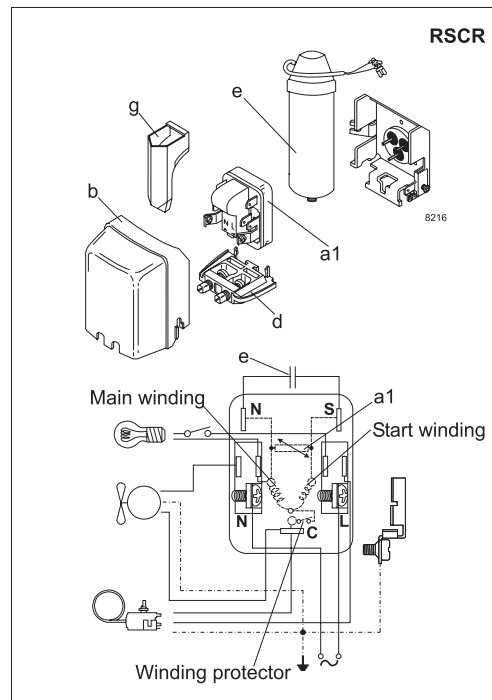


EN 12900 Household (CECOMAF) 220V, 50Hz, RC 4 µF, static cooling, PTC consumption incl.

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|------|-------|------|------|------|------|------|------|---|-----|----|----|----|
| 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 | | | | | 42.0 | 47.2 | 57.9 | 76.2 | 97.4 | 113 | 122 | 150 | | | | | |
| Power cons. in W | | | | | 52 | 54.4 | 59.0 | 66.3 | 74.2 | 80.0 | 82.8 | 92.6 | | | | | |
| Current cons. in A | | | | | 0.29 | 0.30 | 0.31 | 0.34 | 0.37 | 0.39 | 0.40 | 0.44 | | | | | |
| COP in W/W | | | | | 0.81 | 0.87 | 0.98 | 1.15 | 1.31 | 1.42 | 1.47 | 1.62 | | | | | |

ASHRAE LBP 220V, 50Hz, RC 4 µF, static cooling, PTC consumption incl.

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|------|-------|------|------|------|------|------|------|---|-----|----|----|----|
| 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 | | | | | 51.9 | 58.2 | 71.5 | 94.1 | 120 | 141 | 151 | 186 | | | | | |
| Power cons. in W | | | | | 52 | 54.4 | 59.0 | 66.3 | 74.2 | 80.0 | 82.8 | 92.6 | | | | | |
| Current cons. in A | | | | | 0.29 | 0.30 | 0.31 | 0.34 | 0.37 | 0.39 | 0.40 | 0.44 | | | | | |
| COP in W/W | | | | | 1.00 | 1.07 | 1.21 | 1.42 | 1.62 | 1.77 | 1.82 | 2.01 | | | | | |



| Accessories for | PLE50F | Figure | Code number |
|---------------------------------|-------------------------|--------|-------------|
| PTC starting device | 6.3 mm spade connectors | a1 | 103N0016 |
| | 4.8 mm spade connectors | | 103N0021 |
| Cover | | b | 103N0491 |
| Cord relief | | d | 103N1010 |
| Run capacitor 4 µF (compulsory) | 6.3 mm spade connectors | e | 117-7117 |
| | 4.8 mm spade connectors | | 117-7119 |
| Protection screen for PTC | | g | 103N0476 |

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

Nidec GA Compressors accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Nidec GA Compressors 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 to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Nidec Global Appliance Germany GmbH. All rights reserved. www.secop.com