

SC18G Universal Compressor R134a 220-240V 50/60Hz

General

| | |
|-----------------------|-----------------------------------|
| Code number | 104G8820 |
| Approvals | EN 60335-2-34, UL984, CCC, EAC |
| Compressors on pallet | 80 |

Application

| Application | | LBP/HBP | LBP |
|--|----|-----------|-----------|
| Frequency | Hz | 50 | 60 |
| Evaporating temperature | °C | -25 to 15 | -25 to -5 |
| 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 | | |
|-------------|----|----------------|----------------|----------------|----------------|-----|-----|
| Application | | LBP | MBP | HBP | LBP | MBP | HBP |
| 32°C | | F ₁ | F ₂ | F ₂ | F ₁ | - | - |
| 38°C | | F ₁ | F ₂ | F ₂ | F ₁ | - | - |
| 43°C | | F ₁ | F ₂ | F ₂ | F ₁ | - | - |

Remarks on application: HBP at 198 - 254V 50Hz only.

Motor

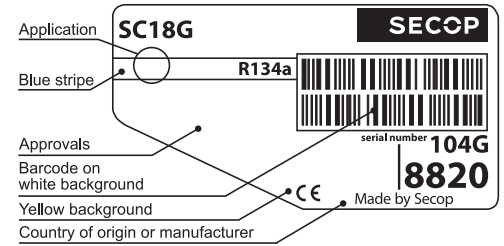
| Motor type | CSIR | | |
|---|------|------|------|
| LRA (rated after 4 sec. UL984), HST LST | A | 18.6 | - |
| Cut in Current, HST LST | A | 18.6 | - |
| Resistance, main start winding (25°C) | Ω | 3.7 | 14.1 |

Design

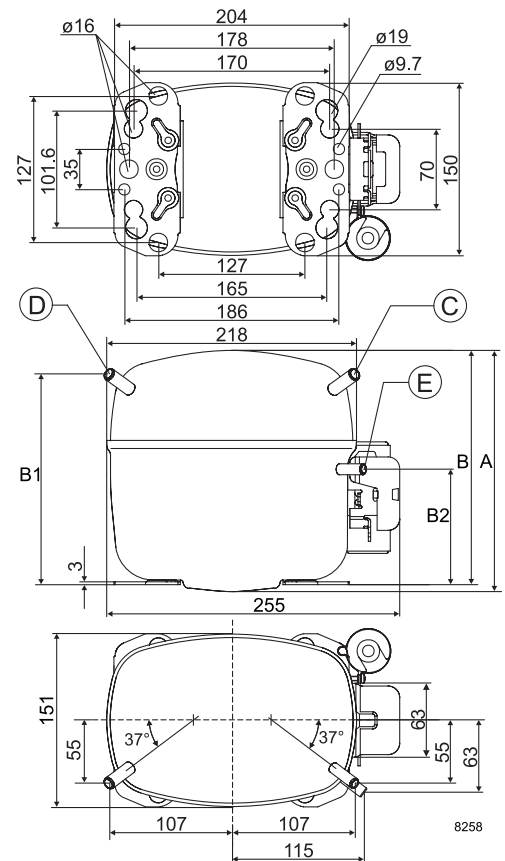
| | | |
|-------------------------------------|-----------------|-------------------|
| Displacement | cm ³ | 17.69 |
| Oil quantity (type) | cm ³ | 550 (polyolester) |
| Maximum refrigerant charge | g | 1300 |
| Free gas volume in compressor | cm ³ | 1460 |
| Weight without electrical equipment | kg | 13.7 |

Dimensions

| | | | |
|----------------------|--------------------------|----|----------------------|
| Height | mm | A | 219 |
| | | B | 213 |
| | | B1 | 193 |
| | | B2 | 110 |
| Suction connector | location/I.D. mm angle | C | 10.2 37° |
| | material comment | | Copper Rubber plug |
| Process connector | location/I.D. mm angle | D | 6.2 37° |
| | material comment | | Copper Rubber plug |
| Discharge connector | location/I.D. mm angle | E | 6.2 37° |
| | 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 F₂

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|------|-------|------|------|------|------|------|------|------|------|------|------|----|
| 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 | | | | | 283 | 318 | 394 | 526 | 684 | 804 | 870 | 1087 | 1337 | 1459 | 1624 | 1950 | |
| Power cons. in W | | | | | 331 | 351 | 389 | 448 | 507 | 547 | 568 | 630 | 695 | 725 | 763 | 835 | |
| Current cons. in A | | | | | 2.56 | 2.62 | 2.72 | 2.88 | 3.05 | 3.18 | 3.24 | 3.46 | 3.71 | 3.84 | 4.00 | 4.34 | |
| COP in W/W | | | | | 0.86 | 0.91 | 1.01 | 1.18 | 1.35 | 1.47 | 1.53 | 1.72 | 1.92 | 2.01 | 2.13 | 2.34 | |

ASHRAE LBP 220V, 50Hz, fan cooling F₂

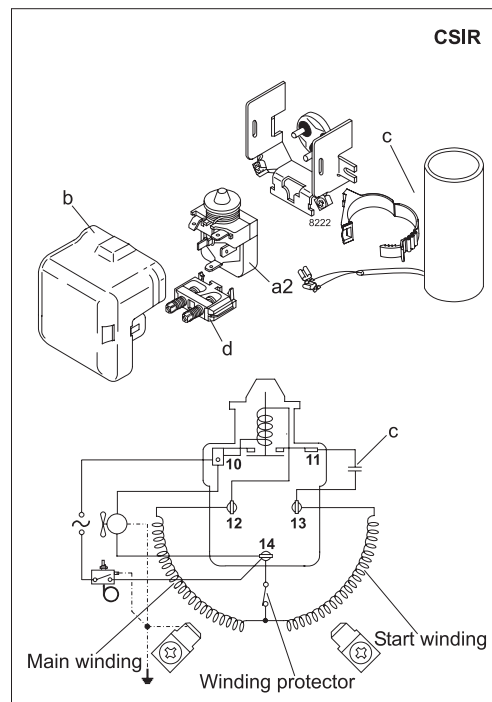
| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|------|-------|------|------|------|------|------|------|------|------|------|------|----|
| Evap. temp. in °C | -45 | -40 | -35 | -30 | -25 | -23.3 | -20 | -15 | -10 | -6.7 | -5 | 0 | 5 | 7.2 | 10 | 15 | 20 |
| Capacity in W | | | | | 348 | 392 | 485 | 650 | 846 | 994 | 1076 | 1346 | 1658 | 1809 | 2016 | 2425 | |
| Power cons. in W | | | | | 329 | 349 | 387 | 445 | 504 | 543 | 564 | 626 | 691 | 720 | 758 | 829 | |
| Current cons. in A | | | | | 2.56 | 2.61 | 2.71 | 2.87 | 3.04 | 3.16 | 3.23 | 3.45 | 3.70 | 3.82 | 3.98 | 4.32 | |
| COP in W/W | | | | | 1.06 | 1.12 | 1.25 | 1.46 | 1.68 | 1.83 | 1.91 | 2.15 | 2.40 | 2.51 | 2.66 | 2.92 | |

EN 12900 Household (CECOMAF) 220V, 60Hz, fan cooling F₂

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|------|-------|------|------|------|------|------|---|---|-----|----|----|----|
| 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 | | | | | 338 | 379 | 468 | 623 | 807 | 944 | 1021 | | | | | | |
| Power cons. in W | | | | | 386 | 414 | 466 | 543 | 616 | 663 | 687 | | | | | | |
| Current cons. in A | | | | | 3.05 | 3.10 | 3.19 | 3.36 | 3.56 | 3.70 | 3.79 | | | | | | |
| COP in W/W | | | | | 0.88 | 0.92 | 1.00 | 1.15 | 1.31 | 1.42 | 1.49 | | | | | | |

ASHRAE LBP 220V, 60Hz, fan cooling F₂

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|-----|-----|------|-------|------|------|------|------|------|---|---|-----|----|----|----|
| 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 | | | | | 417 | 469 | 579 | 772 | 999 | 1170 | 1265 | | | | | | |
| Power cons. in W | | | | | 386 | 414 | 466 | 541 | 613 | 660 | 683 | | | | | | |
| Current cons. in A | | | | | 3.05 | 3.09 | 3.19 | 3.35 | 3.55 | 3.69 | 3.77 | | | | | | |
| COP in W/W | | | | | 1.08 | 1.13 | 1.24 | 1.43 | 1.63 | 1.77 | 1.85 | | | | | | |



| Accessories for | SC18G | Figure | Code number | Test conditions | EN 12900/CECOMAF | ASHRAE LBP |
|---------------------------|-------------------------|--------|-------------|-----------------------------|------------------|--------------------|
| PTC starting device | 6.3 mm spade connectors | a1 | – | Condensing temperature | 55°C | 54.5°C |
| | 4.8 mm spade connectors | | – | Ambient temperature | 32°C | 32°C |
| Starting relay | 6.3 mm spade connectors | a2 | 117U6019 | Suction gas temperature | 32°C | 32°C |
| Cover | | b | 103N2009 | Liquid temperature | 55°C | 32°C |
| Start. capacitor 80 µF | 6.3 mm spade connectors | c | 117U5017 | | | |
| Cord relief | | d | 103N1004 | | | |
| Protection screen for PTC | | g | – | | | |
| | | | | 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 substantial 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