

# SC21G Universal Compressor R134a 220-240V 50Hz

Data Sheet (Replaces CD.44.L7.02)

## General

|                             |              |
|-----------------------------|--------------|
| Compressor                  | <b>SC21G</b> |
| Code number                 | 104G8140     |
| Code number                 | 104G8124     |
| Code number (UL-recognized) | 104G8143     |

## Application

|                                |      |                     |                     |
|--------------------------------|------|---------------------|---------------------|
| Application                    |      | LBP/HBP             |                     |
| Evaporating temperature range  | °C   | -35 to 15           |                     |
| Voltage range*)                | V/Hz | LBP: 187 - 254 /50  |                     |
|                                |      | LBP: 198 - 254 /60  |                     |
|                                |      | HBP: 198 - 254 /50  |                     |
| Motor type                     |      | CSR                 |                     |
| Max. ambient temperature       | °C   | 43                  |                     |
| Comp. cooling at ambient temp. | 32°C | LBP: F <sub>2</sub> |                     |
|                                |      | HBP: F <sub>2</sub> |                     |
|                                |      | 38°C                | LBP: F <sub>2</sub> |
|                                |      | HBP: F <sub>2</sub> |                     |
|                                | 43°C | LBP: F <sub>2</sub> |                     |
|                                |      | HBP: F <sub>2</sub> |                     |

\*) Not applicable below -25°C evaporating temperature in 43°C ambient temperature above 240V.

## Design

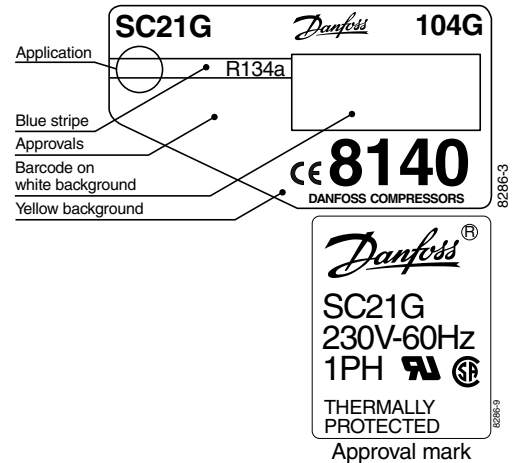
|                                     |                 |       |
|-------------------------------------|-----------------|-------|
| Displacement                        | cm <sup>3</sup> | 20.95 |
| Oil quantity                        | cm <sup>3</sup> | 550   |
| Maximum refrigerant charge          | g               | 1300  |
| Free gas vol. in compressor         | cm <sup>3</sup> | 1460  |
| Weight without electrical equipment | kg              | 13.5  |

## Motor

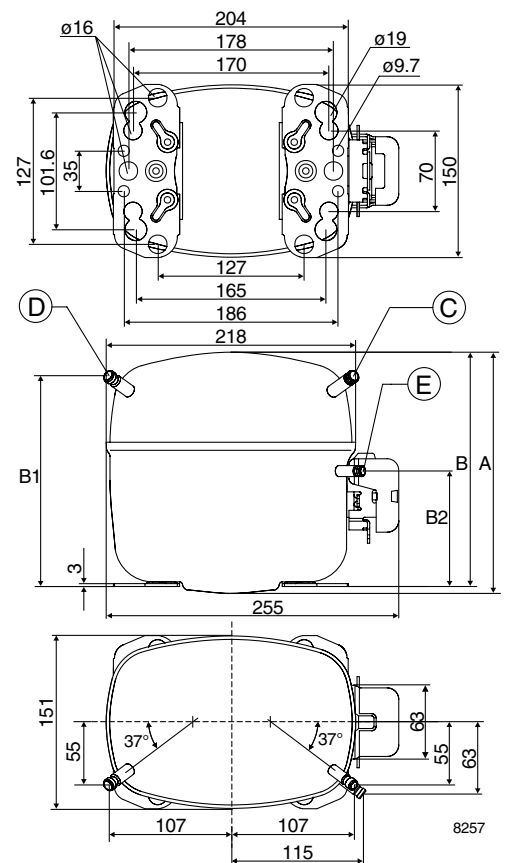
|   |      |                 |
|---|------|-----------------|
| Motor size                                | watt | 550             |
| LRA (rated after 4 sec. UL984) HST        | A    | 21.8            |
| Cut-in current HST                        | A    | 21.8            |
| Resistance, main and start winding (25°C) | Ω    | 3.5/12.1        |
| Approvals (104G8140/24)                   |      | EN 60335-2-34   |
| Approvals (104G8143)                      |      | UL984/CSA-C22.2 |

## Dimensions

|                         |                  | 104G8140/43  | 104G8124   |
|-------------------------|------------------|--------------|------------|
| Height                  | mm               | A            | 219        |
|                         |                  | B            | 213        |
|                         |                  | B1           | 193        |
|                         |                  | B2           | 110        |
| Suction connector       | location/I.D. mm | C 10.2 ±0.09 | 10.2 ±0.09 |
| Process connector       | location/I.D. mm | D 6.2 ±0.09  | 6.5 ±0.09  |
| Discharge connector     | location/I.D. mm | E 6.2 ±0.09  | 6.5 ±0.09  |
| Compressors on a pallet | pcs.             | 80           |            |



- 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



Drawing shows standard SC housing cover. On housing cover of type 104G8124 suction and process connectors are interchanged.

**Capacity (EN 12900/CECOMAF)**
**watt**

| Comp.\°C | -25 | -23.3 | -20 | -15 | -10 | -5   | 0    | 5    | 7.2  | 10   | 15   |
|----------|-----|-------|-----|-----|-----|------|------|------|------|------|------|
| SC21G    | 333 | 370   | 453 | 606 | 792 | 1012 | 1268 | 1560 | 1700 | 1889 | 2256 |

**Capacity (ASHRAE)**
**watt**

| Comp.\°C | -25 | -23.3 | -20 | -15 | -10 | -5   | 0    | 5    | 7.2  | 10   | 15   |
|----------|-----|-------|-----|-----|-----|------|------|------|------|------|------|
| SC21G    | 410 | 456   | 558 | 746 | 977 | 1250 | 1568 | 1931 | 2106 | 2343 | 2803 |

**Power consumption**
**watt**

| Comp.\°C | -25 | -23.3 | -20 | -15 | -10 | -5  | 0   | 5   | 7.2 | 10  | 15  |
|----------|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| SC21G    | 382 | 404   | 445 | 509 | 575 | 643 | 714 | 789 | 823 | 868 | 953 |

**Current consumption**
**A**

| Comp.\°C | -25  | -23.3 | -20  | -15  | -10  | -5   | 0    | 5    | 7.2  | 10   | 15   |
|----------|------|-------|------|------|------|------|------|------|------|------|------|
| SC21G    | 2.28 | 2.34  | 2.48 | 2.71 | 2.96 | 3.24 | 3.54 | 3.87 | 4.02 | 4.22 | 4.60 |

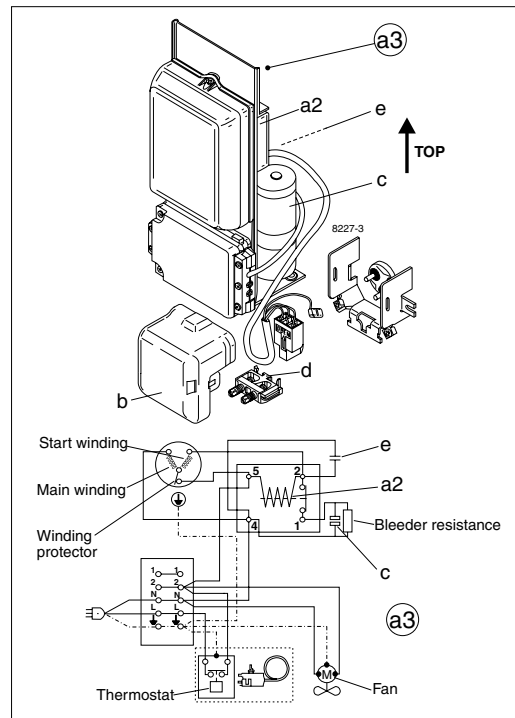
**COP (EN 12900/CECOMAF)**
**W/W**

| Comp.\°C | -25  | -23.3 | -20  | -15  | -10  | -5   | 0    | 5    | 7.2  | 10   | 15   |
|----------|------|-------|------|------|------|------|------|------|------|------|------|
| SC21G    | 0.87 | 0.92  | 1.02 | 1.19 | 1.38 | 1.58 | 1.78 | 1.98 | 2.07 | 2.18 | 2.37 |

**COP (ASHRAE)**
**W/W**

| Comp.\°C | -25  | -23.3 | -20  | -15  | -10  | -5   | 0    | 5    | 7.2  | 10   | 15   |
|----------|------|-------|------|------|------|------|------|------|------|------|------|
| SC21G    | 1.07 | 1.13  | 1.25 | 1.47 | 1.70 | 1.95 | 2.20 | 2.45 | 2.56 | 2.70 | 2.94 |

|                               |                  |        |
|-------------------------------|------------------|--------|
| Test conditions               | EN 12900/CECOMAF | ASHRAE |
| Condensing temperature        | 55°C             | 55°C   |
| Ambient and suction gas temp. | 32°C             | 32°C   |
| Liquid temperature            | 55°C             | 32°C   |
| Fan cooling, 220V 50Hz        |                  |        |


**Accessories**

| Devices                       | Fig. | SC21G   |
|-------------------------------|------|---|
| Starting device (104G8140/24) | a3   | 117-7028 (470 mm cable length)<br>117-7029 (550 mm cable length)<br>117-7032 (650 mm cable length)  |
| Starting device (104G8143)    | a3   | 117-7038 (470 mm cable length)<br>117-7039 (550 mm cable length)<br>117-7043 (1000 mm cable length) |
| Cover (104G8140/24)           | b    | 103N2009  |
| Cover (104G8143)              | b    | 103N2008  |
| Starting relay                | a2   | Components of starting device   |
| Starting capacitor            | c    |   |
| Run capacitor                 | e    |   |
| Cord relief                   | d    | 103N1004  |
| Mounting accessories          |      |   |
| Bolt joint for one compressor |      | 118-1917  |
| Bolt joint in quantities      |      | 118-1918  |
| Snap-on in quantities         |      | 118-1919  |