

## SC21G Universal Compressor R134a 220-240V 50/60Hz

### General

|                       |          |
|-----------------------|----------|
| Code number           | 104G8143 |
| Approvals             | UL984    |
| 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 <sub>2</sub> | F <sub>2</sub> | F <sub>2</sub> | F <sub>2</sub> | -   | -   |
| 38°C        |    | F <sub>2</sub> | F <sub>2</sub> | F <sub>2</sub> | F <sub>2</sub> | -   | -   |
| 43°C        |    | F <sub>2</sub> | F <sub>2</sub> | F <sub>2</sub> | F <sub>2</sub> | -   | -   |

Remarks on application:  
Not applicable below -25°C evaporating temp. in 43°C ambient temperature above 240V. HBP at 198 - 254V 50Hz only.

### Motor

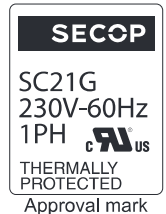
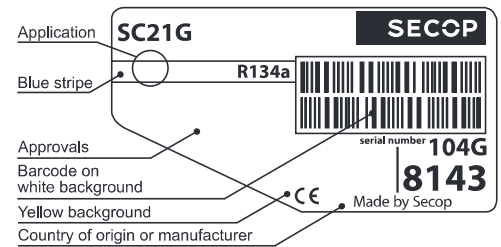
| Motor type                                |   | CSR  |      |
|---|---|------|------|
| LRA (rated after 4 sec. UL984), HST   LST | A | 21.8 | -    |
| Cut in Current, HST   LST                 | A | 21.8 | -    |
| Resistance, main   start winding (25°C)   | Ω | 3.5  | 12.1 |

### Design

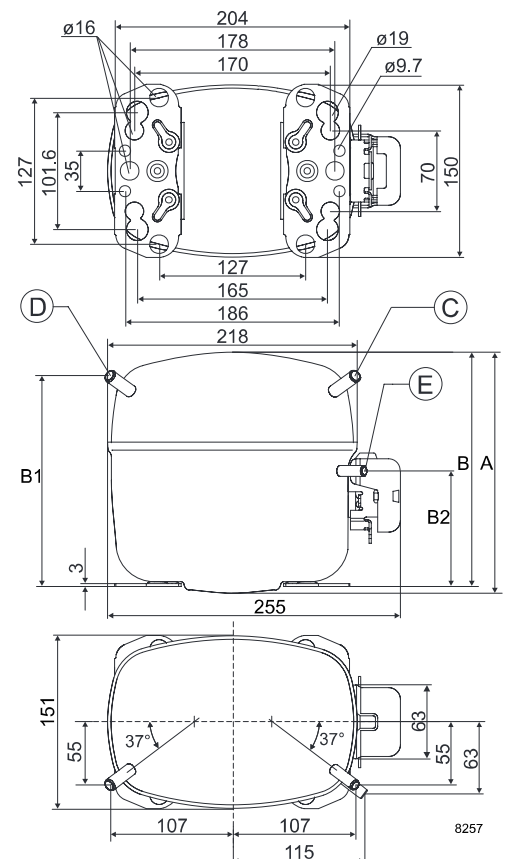
|                                     |                 |                   |
|-------------------------------------|-----------------|-------------------|
| Displacement                        | cm <sup>3</sup> | 20.95             |
| Oil quantity (type)                 | cm <sup>3</sup> | 600 (polyolester) |
| Maximum refrigerant charge          | g               | 1300              |
| Free gas volume in compressor       | cm <sup>3</sup> | 1460              |
| Weight without electrical equipment | kg              | 13.5              |

### 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
- 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**

220V, 50Hz, fan cooling F<sub>2</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      |     |     |     |     | 333  | 370   | 453  | 606  | 792  | 934  | 1012 | 1268 | 1560 | 1700 | 1889 | 2256 |    |
| Power cons. in W   |     |     |     |     | 382  | 404   | 445  | 509  | 575  | 620  | 643  | 714  | 789  | 823  | 868  | 953  |    |
| Current cons. in A |     |     |     |     | 2.28 | 2.34  | 2.48 | 2.71 | 2.96 | 3.14 | 3.24 | 3.54 | 3.87 | 4.02 | 4.22 | 4.60 |    |
| COP in W/W         |     |     |     |     | 0.87 | 0.92  | 1.02 | 1.19 | 1.38 | 1.51 | 1.58 | 1.78 | 1.98 | 2.07 | 2.18 | 2.37 |    |

**ASHRAE LBP**

220V, 50Hz, fan cooling F<sub>2</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      |     |     |     |     | 410  | 456   | 558  | 746  | 977  | 1156 | 1250 | 1568 | 1931 | 2106 | 2343 | 2803 |    |
| Power cons. in W   |     |     |     |     | 382  | 404   | 445  | 509  | 575  | 620  | 643  | 714  | 789  | 823  | 868  | 953  |    |
| Current cons. in A |     |     |     |     | 2.28 | 2.34  | 2.48 | 2.71 | 2.96 | 3.14 | 3.24 | 3.54 | 3.87 | 4.02 | 4.22 | 4.60 |    |
| COP in W/W         |     |     |     |     | 1.07 | 1.13  | 1.25 | 1.47 | 1.70 | 1.86 | 1.95 | 2.20 | 2.45 | 2.56 | 2.70 | 2.94 |    |

**EN 12900 Household**

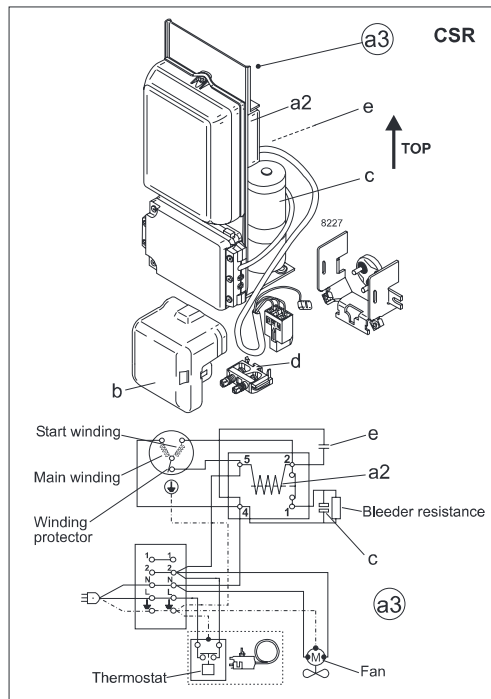
230V, 60Hz, fan cooling F<sub>2</sub>

|                    |     |     |     |     |      |       |      |      |      |      |      |   |   |     |    |    |    |
|--------------------|-----|-----|-----|-----|------|-------|------|------|------|------|------|---|---|-----|----|----|----|
| 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      |     |     |     |     | 311  | 364   | 476  | 671  | 903  | 1078 | 1175 |   |   |     |    |    |    |
| Power cons. in W   |     |     |     |     | 374  | 406   | 466  | 553  | 638  | 693  | 721  |   |   |     |    |    |    |
| Current cons. in A |     |     |     |     | 1.82 | 1.95  | 2.21 | 2.58 | 2.95 | 3.19 | 3.31 |   |   |     |    |    |    |
| COP in W/W         |     |     |     |     | 0.83 | 0.90  | 1.02 | 1.21 | 1.42 | 1.56 | 1.63 |   |   |     |    |    |    |

**ASHRAE LBP**

230V, 60Hz, fan cooling F<sub>2</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      |     |     |     |     | 392  | 457   | 595  | 835  | 1121 | 1336 | 1456 |   |   |     |    |    |    |
| Power cons. in W   |     |     |     |     | 378  | 409   | 468  | 554  | 637  | 692  | 720  |   |   |     |    |    |    |
| Current cons. in A |     |     |     |     | 1.83 | 1.96  | 2.21 | 2.58 | 2.94 | 3.18 | 3.29 |   |   |     |    |    |    |
| COP in W/W         |     |     |     |     | 1.04 | 1.12  | 1.27 | 1.51 | 1.76 | 1.93 | 2.02 |   |   |     |    |    |    |



| Accessories for SC21G  | Figure | Code number                   |
|--|--------|-------------------------------|
| Starting device<br>550 mm cable length<br>1000 mm cable length | a3     | 117-7039<br>117-7043          |
|  | b      | 103N2008                      |
| Starting relay   | a2     | Components of starting device |
| Starting capacitor   | c      |                               |
| Run capacitor  | e      |                               |
| Cord relief  | d      | 103N1004                      |

| Test conditions         | EN 12900/CECOMAF | ASHRAE LBP |
|-------------------------|------------------|------------|
| Condensing temperature  | 55°C             | 55°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<br>118-1917 |
| Bolt joint in quantities | Ø: 16 mm<br>118-1918 |
| Snap-on in quantities    | Ø: 16 mm<br>118-1919 |

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