

## SC21CNX.2 LBP Compressor R290 220-240V 50Hz

### General

|                       |               |
|-----------------------|---------------|
| Code number           | 104H8166      |
| Approvals             | EN 60335-2-34 |
| Compressors on pallet | 80            |

### Application

| Application                                    | LBP |            |    |
|--|-----|------------|----|
| Frequency                                      | Hz  | 50         | 60 |
| Evaporating temperature                        | °C  | -40 to -10 | -  |
| Voltage range                                  | V   | 198 - 254  | -  |
| Max. condensing temperature continuous (short) | °C  | 55 (60)    | -  |
| Max. winding temperature continuous (short)    | °C  | 125 (135)  | -  |

### Cooling requirements

| Frequency               | Hz | 50             |     |     | 60  |     |     |
|-------------------------|----|----------------|-----|-----|-----|-----|-----|
| Application             |    | LBP            | MBP | HBP | LBP | MBP | HBP |
| 32°C                    |    | F <sub>2</sub> | -   | -   | -   | -   | -   |
| 38°C                    |    | F <sub>2</sub> | -   | -   | -   | -   | -   |
| 43°C                    |    | F <sub>2</sub> | -   | -   | -   | -   | -   |
| Remarks on application: |    |                |     |     |     |     |     |

### Motor

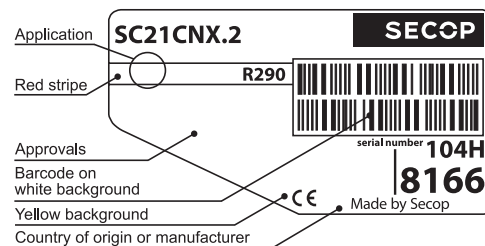
| Motor type                                | CSIR |      |      |
|---|------|------|------|
| LRA (rated after 4 sec. UL984), HST   LST | A    | 23.5 | -    |
| Cut in Current, HST   LST                 | A    | 23.5 | -    |
| Resistance, main   start winding (25°C)   | Ω    | 3.3  | 14.0 |

### Design

|                                     |                 |                   |
|-------------------------------------|-----------------|-------------------|
| Displacement                        | cm <sup>3</sup> | 20.95             |
| Oil quantity (type)                 | cm <sup>3</sup> | 600 (polyolester) |
| Maximum refrigerant charge          | g               | 150               |
| Free gas volume in compressor       | cm <sup>3</sup> | 1410              |
| Weight without electrical equipment | kg              | 13.1              |

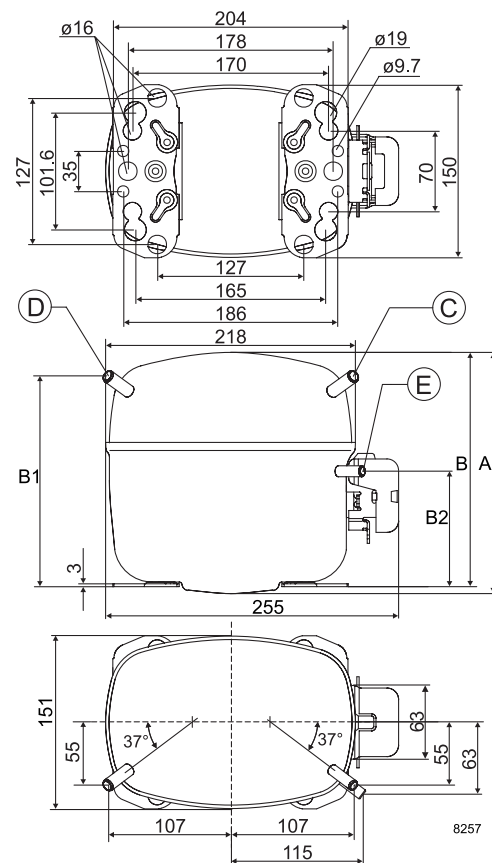
### Dimensions

|                      |                          |    |                      |
|----------------------|--------------------------|----|----------------------|
| 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:             |                          |    |                      |



Yellow warning label

- 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 (CECOMAF)\***  $t_c = 45^\circ\text{C}$ , 220V, 50Hz, fan cooling  $F_2$

|                    |     |      |      |      |      |       |      |      |      |      |    |   |   |     |    |    |    |
|--------------------|-----|------|------|------|------|-------|------|------|------|------|----|---|---|-----|----|----|----|
| 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      |     | 339  | 492  | 654  | 828  | 891   | 1020 | 1233 | 1471 |      |    |   |   |     |    |    |    |
| Power cons. in W   |     | 431  | 491  | 555  | 623  | 647   | 695  | 772  | 855  |      |    |   |   |     |    |    |    |
| Current cons. in A |     | 3.43 | 3.58 | 3.76 | 3.98 | 4.06  | 4.23 | 4.52 | 4.84 |      |    |   |   |     |    |    |    |
| COP in W/W         |     | 0.78 | 1.00 | 1.18 | 1.33 | 1.38  | 1.47 | 1.60 | 1.72 |      |    |   |   |     |    |    |    |

**ASHRAE LBP\***  $t_c = 43.3^\circ\text{C}$ , 220V, 50Hz, fan cooling  $F_2$

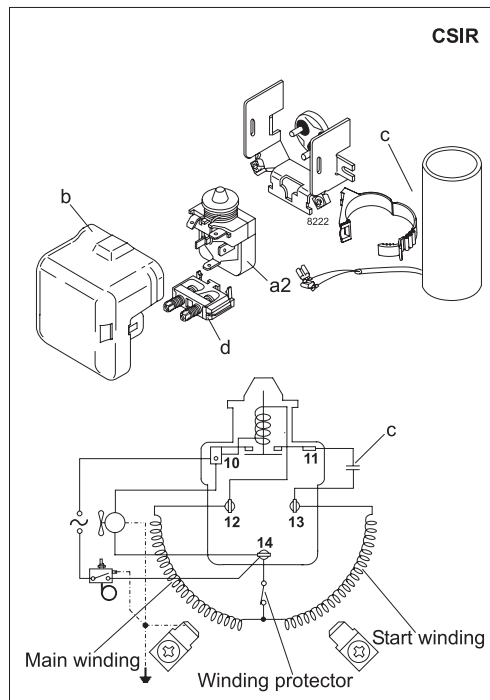
|                    |     |      |      |      |      |       |      |      |      |      |    |   |   |     |    |    |    |
|--------------------|-----|------|------|------|------|-------|------|------|------|------|----|---|---|-----|----|----|----|
| Evap. temp. in °C  | -45 | -40  | -35  | -30  | -25  | -23.3 | -20  | -15  | -10  | -6.7 | -5 | 0 | 5 | 7.2 | 10 | 15 | 20 |
| Capacity in W      |     | 396  | 564  | 741  | 931  | 999   | 1139 | 1371 | 1630 |      |    |   |   |     |    |    |    |
| Power cons. in W   |     | 432  | 493  | 556  | 623  | 646   | 693  | 767  | 846  |      |    |   |   |     |    |    |    |
| Current cons. in A |     | 3.44 | 3.58 | 3.75 | 3.96 | 4.04  | 4.21 | 4.48 | 4.79 |      |    |   |   |     |    |    |    |
| COP in W/W         |     | 0.92 | 1.14 | 1.33 | 1.49 | 1.55  | 1.64 | 1.79 | 1.93 |      |    |   |   |     |    |    |    |

**EN 12900 Household (CECOMAF)**  $t_c = 55^\circ\text{C}$ , 220V, 50Hz, fan cooling  $F_2$

|                    |     |     |      |      |      |       |      |      |      |      |    |   |   |     |    |    |    |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|----|---|---|-----|----|----|----|
| 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      |     |     | 372  | 536  | 716  | 781   | 914  | 1137 | 1387 |      |    |   |   |     |    |    |    |
| Power cons. in W   |     |     | 512  | 571  | 639  | 664   | 717  | 804  | 901  |      |    |   |   |     |    |    |    |
| Current cons. in A |     |     | 3.59 | 3.83 | 4.10 | 4.20  | 4.41 | 4.75 | 5.13 |      |    |   |   |     |    |    |    |
| COP in W/W         |     |     | 0.73 | 0.94 | 1.12 | 1.18  | 1.28 | 1.41 | 1.54 |      |    |   |   |     |    |    |    |

**ASHRAE LBP**  $t_c = 54.4^\circ\text{C}$ , 220V, 50Hz, fan cooling  $F_2$

|                    |     |     |      |      |      |       |      |      |      |      |    |   |   |     |    |    |    |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|----|---|---|-----|----|----|----|
| 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      |     |     | 462  | 663  | 882  | 962   | 1125 | 1398 | 1705 |      |    |   |   |     |    |    |    |
| Power cons. in W   |     |     | 509  | 568  | 636  | 662   | 714  | 801  | 897  |      |    |   |   |     |    |    |    |
| Current cons. in A |     |     | 3.59 | 3.82 | 4.09 | 4.19  | 4.40 | 4.74 | 5.11 |      |    |   |   |     |    |    |    |
| COP in W/W         |     |     | 0.91 | 1.17 | 1.39 | 1.45  | 1.58 | 1.75 | 1.90 |      |    |   |   |     |    |    |    |



| Accessories for           | SC21CNX.2               | Figure | Code number | Test conditions             | EN 12900/<br>CECOMAF(*) | ASHRAE<br>LBP(*) |
|---------------------------|-------------------------|--------|-------------|-----------------------------|-------------------------|------------------|
| PTC starting device       | 6.3 mm spade connectors | -      | -           | Condensing temperature      | 55°C (*45°C)            | 54.4 (*43.3°C)   |
|                           | 4.8 mm spade connectors |        |             | Ambient temperature         | 32°C                    | 32°C             |
| Starting relay            | 6.3 mm spade connectors | a2     | 117U7013    | Suction gas temperature     | 32°C                    | 32°C             |
| Cover                     |                         | b      | 103N2009    | Liquid temperature          | no subcooling           | 32°C             |
| Start. capacitor 125 µF   | 6.3 mm spade connectors | c      | 117U5012    |                             |                         |                  |
| Cord relief               |                         | d      | 103N1004    |                             |                         |                  |
| Protection screen for PTC |                         | -      | -           |                             |                         |                  |
|                           |                         |        |             | <b>Mounting accessories</b> | <b>Code number</b>      |                  |
|                           |                         |        |             | 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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