

## SC21MFX Standard Compressor R134a 220-240V 50Hz

### General

|                       |                          |
|-----------------------|--------------------------|
| Code number           | 104G8120                 |
| Approvals             | EN 60335-2-34, CCC, GOST |
| Compressors on pallet | 80                       |

### Application

| Application                                    | MBP |             |    |
|------------------------------------------------|-----|-------------|----|
| Frequency                                      | Hz  | 50          | 60 |
| Evaporating temperature                        | °C  | -23.3 to 10 | –  |
| Voltage range                                  | V   | 187 - 254   | –  |
| Max. condensing temperature continuous (short) | °C  | 60 (70)     | –  |
| 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

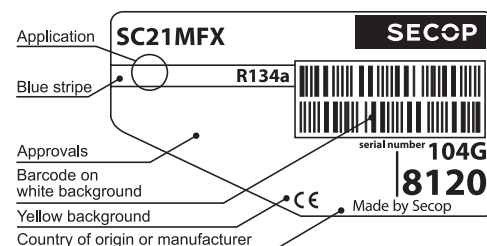
| Motor type                                | CSIR/CSR |      |      |
|-------------------------------------------|----------|------|------|
| LRA (rated after 4 sec. UL984), HST   LST | A        | 23.6 | –    |
| Cut in Current, HST   LST                 | A        | 23.6 | –    |
| Resistance, main   start winding (25°C)   | Ω        | 3.4  | 14.4 |

### Design

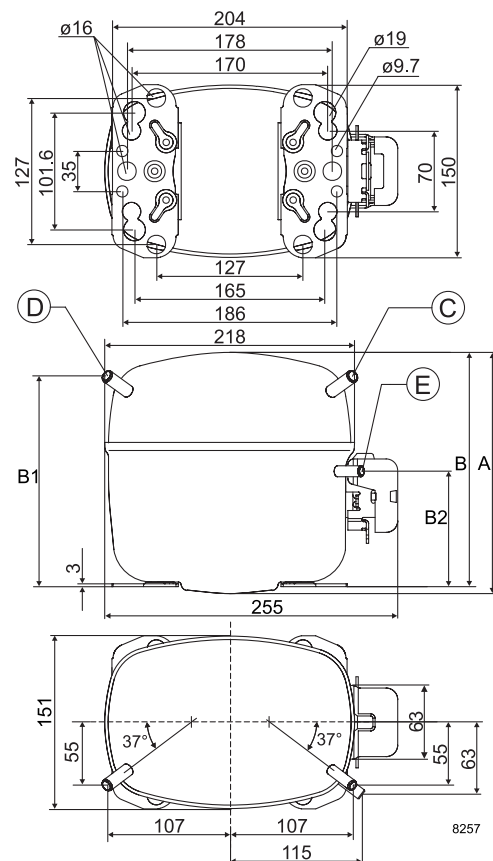
|                                     |                 |                   |
|-------------------------------------|-----------------|-------------------|
| Displacement                        | cm <sup>3</sup> | 20.95             |
| Oil quantity (type)                 | cm <sup>3</sup> | 600 (polyolester) |
| Maximum refrigerant charge          | g               | 1300              |
| Free gas volume in compressor       | cm <sup>3</sup> | 1460              |
| Weight without electrical equipment | kg              | 14.0              |

### 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 (CECOMAF) 220V, 50Hz (CSIR), 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      |     |     |     |     |     | 430   | 514  | 662  | 840  | 976  | 1052 | 1303 | 1596 | 1740 | 1936 |    |    |
| Power cons. in W   |     |     |     |     |     | 441   | 485  | 550  | 615  | 658  | 680  | 746  | 813  | 842  | 881  |    |    |
| Current cons. in A |     |     |     |     |     | 3.68  | 3.83 | 4.04 | 4.24 | 4.37 | 4.43 | 4.61 | 4.78 | 4.85 | 4.93 |    |    |
| COP in W/W         |     |     |     |     |     | 0.97  | 1.06 | 1.20 | 1.37 | 1.48 | 1.55 | 1.75 | 1.96 | 2.07 | 2.20 |    |    |

**EN 12900 Household (CECOMAF) 220V, 50Hz, RC (CSR), fan cooling F<sub>2</sub>**

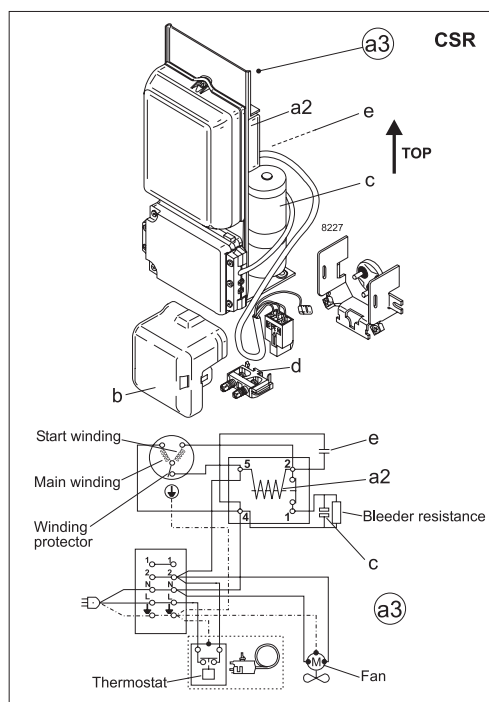
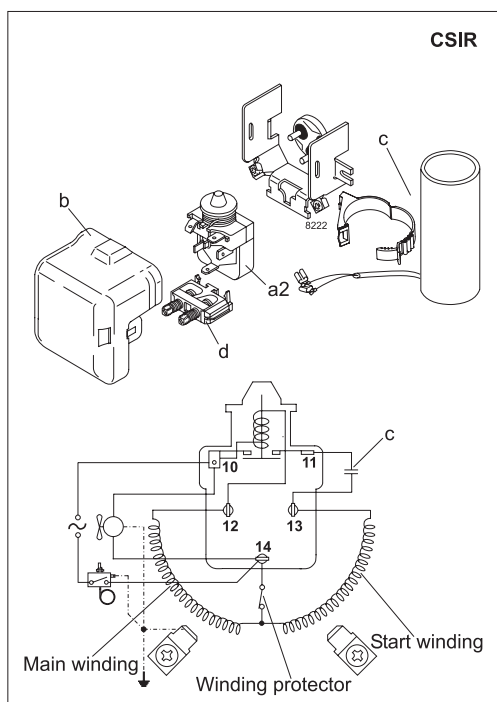
|                    |     |     |     |     |     |       |      |      |      |      |      |      |      |      |      |    |    |
|--------------------|-----|-----|-----|-----|-----|-------|------|------|------|------|------|------|------|------|------|----|----|
| Evap. temp. in °C  | -45 | -40 | -35 | -30 | -25 | -23.3 | -20  | -15  | -10  | -6.7 | -5   | 0    | 5    | 7.2  | 10   | 15 | 20 |
| Capacity in W      |     |     |     |     |     | 443   | 530  | 682  | 866  | 1006 | 1085 | 1343 | 1645 | 1793 | 1996 |    |    |
| Power cons. in W   |     |     |     |     |     | 427   | 469  | 532  | 594  | 635  | 657  | 720  | 784  | 812  | 849  |    |    |
| Current cons. in A |     |     |     |     |     | 2.65  | 2.83 | 3.10 | 3.36 | 3.52 | 3.60 | 3.82 | 4.03 | 4.12 | 4.23 |    |    |
| COP in W/W         |     |     |     |     |     | 1.04  | 1.13 | 1.28 | 1.46 | 1.58 | 1.65 | 1.87 | 2.10 | 2.21 | 2.35 |    |    |

**ASHRAE MBP 220V, 50Hz (CSIR), 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      |     |     |     |     |     | 473   | 565  | 728  | 924  | 1073 | 1157 | 1433 | 1756 | 1914 | 2131 |    |    |
| Power cons. in W   |     |     |     |     |     | 441   | 484  | 548  | 613  | 656  | 678  | 743  | 809  | 839  | 877  |    |    |
| Current cons. in A |     |     |     |     |     | 3.67  | 3.82 | 4.03 | 4.23 | 4.36 | 4.42 | 4.60 | 4.77 | 4.84 | 4.93 |    |    |
| COP in W/W         |     |     |     |     |     | 1.07  | 1.17 | 1.33 | 1.51 | 1.64 | 1.71 | 1.93 | 2.17 | 2.28 | 2.43 |    |    |

**ASHRAE MBP 220V, 50Hz, RC (CSR), 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      |     |     |     |     |     | 487   | 582  | 750  | 952  | 1106 | 1193 | 1477 | 1810 | 1973 | 2196 |    |    |
| Power cons. in W   |     |     |     |     |     | 427   | 468  | 530  | 592  | 633  | 654  | 717  | 781  | 809  | 846  |    |    |
| Current cons. in A |     |     |     |     |     | 2.63  | 2.82 | 3.09 | 3.34 | 3.50 | 3.58 | 3.81 | 4.02 | 4.11 | 4.22 |    |    |
| COP in W/W         |     |     |     |     |     | 1.14  | 1.24 | 1.42 | 1.61 | 1.75 | 1.82 | 2.06 | 2.32 | 2.44 | 2.60 |    |    |



| Accessories for        | SC21MFX                 | Figure | Code number                   |
|------------------------|-------------------------|--------|-------------------------------|
| Starting device        | 550 mm cable length     | a3     | 117-7039                      |
|                        | 1000 mm cable length    |        | 117-7043                      |
| Starting relay         |                         | a2     | Components of starting device |
| Start. capacitor 80 µF |                         | c      |                               |
| Run capacitor 10 µF    |                         | e      |                               |
| Starting relay         | 6.3 mm spade connectors | a2     | 117U6019                      |
| Start. capacitor 80 µF | 6.3 mm spade connectors | c      | 117U5017                      |
| Cover                  |                         | b      | 103N2009                      |
| Cord relief            |                         | d      | 103N1004                      |

| Test conditions         | EN 12900/CECOMAF | ASHRAE MBP |
|-------------------------|------------------|------------|
| Condensing temperature  | 55°C             | 54.4°C     |
| Ambient temperature     | 32°C             | 35°C       |
| Suction gas temperature | 32°C             | 35°C       |
| Liquid temperature      | no subcooling    | 46.1°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 |

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