

## FR10G Universal Compressor R134a 220-240V 50/60Hz

### General

|                       |                    |
|-----------------------|--------------------|
| Code number           | 103G6881           |
| Approvals             | EN 60335-2-34, CCC |
| Compressors on pallet | 80                 |

### Application

| Application                                    | LBP/HBP      | LBP        |
|--|--------------|------------|
| Frequency                                      | Hz 50        | 60         |
| Evaporating temperature                        | °C -30 to 10 | -30 to -10 |
| 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   |    | S              | F <sub>2</sub> | F <sub>2</sub> | S              | -   | -   |
| 38°C   |    | S              | F <sub>2</sub> | F <sub>2</sub> | S              | -   | -   |
| 43°C   |    | F <sub>1</sub> | F <sub>2</sub> | F <sub>2</sub> | F <sub>1</sub> | -   | -   |
| Remarks on application: HBP at 198 - 254V 50Hz only. |    |                |                |                |                |     |     |

### Motor

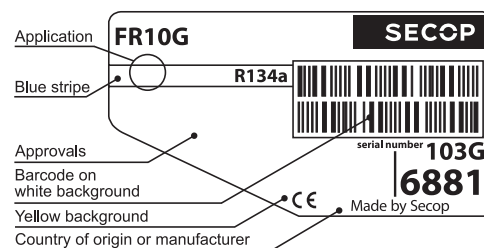
| Motor type                                |   | RSIR/CSIR |      |
|---|---|-----------|------|
| LRA (rated after 4 sec. UL984), HST   LST | A | 10.0      | 10.3 |
| Cut in Current, HST   LST                 | A | 10.0      | 15.0 |
| Resistance, main   start winding (25°C)   | Ω | 7.3       | 12.0 |

### Design

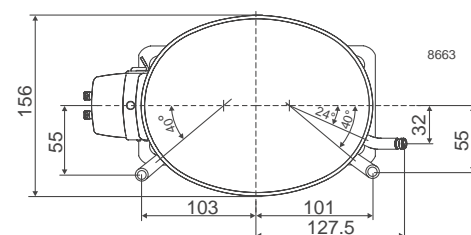
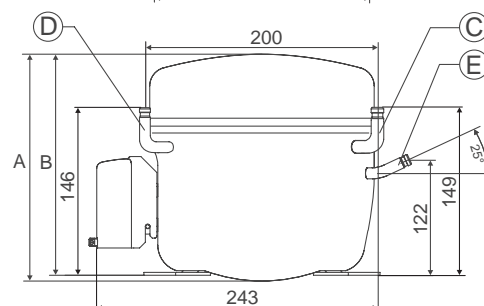
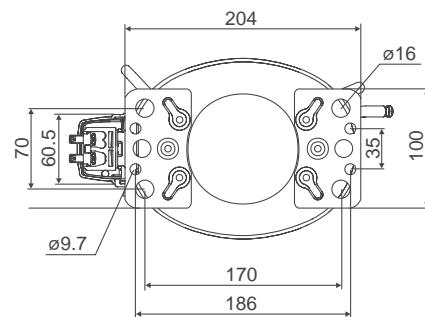
|                                     |                 |                   |
|-------------------------------------|-----------------|-------------------|
| Displacement                        | cm <sup>3</sup> | 9.05              |
| Oil quantity (type)                 | cm <sup>3</sup> | 450 (polyolester) |
| Maximum refrigerant charge          | g               | 900               |
| Free gas volume in compressor       | cm <sup>3</sup> | 1350              |
| Weight without electrical equipment | kg              | 10.6              |

### Dimensions

|                      |                          |    |                          |
|----------------------|--------------------------|----|--------------------------|
| Height               | mm                       | A  | 196                      |
|                      |                          | B  | 191                      |
|                      |                          | B1 | -                        |
|                      |                          | B2 | -                        |
| Suction connector    | location/I.D. mm   angle | C  | 8.2   90°                |
|                      | material   comment       |    | Cu-plated steel   Al cap |
| Process connector    | location/I.D. mm   angle | D  | 6.5   90°                |
|                      | material   comment       |    | Cu-plated steel   Al cap |
| Discharge connector  | location/I.D. mm   angle | E  | 6.5   25°                |
|                      | material   comment       |    | Cu-plated steel   Al cap |
| 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, 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      |     |     |     | 91.9 | 136  | 152   | 188  | 250  | 324  | 380  | 412  | 516  | 638  | 697  | 779  |    |    |
| Power cons. in W   |     |     |     | 155  | 179  | 188   | 205  | 234  | 265  | 286  | 296  | 329  | 362  | 376  | 394  |    |    |
| Current cons. in A |     |     |     | 1.51 | 1.58 | 1.61  | 1.66 | 1.75 | 1.84 | 1.91 | 1.94 | 2.05 | 2.16 | 2.21 | 2.28 |    |    |
| COP in W/W         |     |     |     | 0.59 | 0.76 | 0.81  | 0.91 | 1.07 | 1.22 | 1.33 | 1.39 | 1.57 | 1.76 | 1.85 | 1.98 |    |    |

**EN 12900 Household (CECOMAF)** 220V, 60Hz, fan cooling F<sub>2</sub>

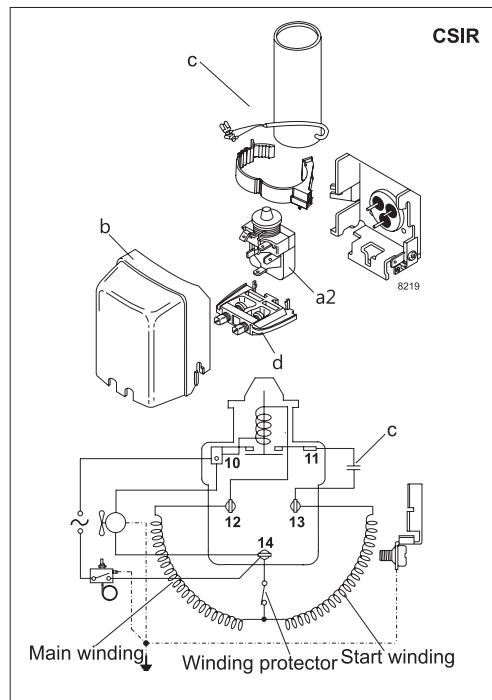
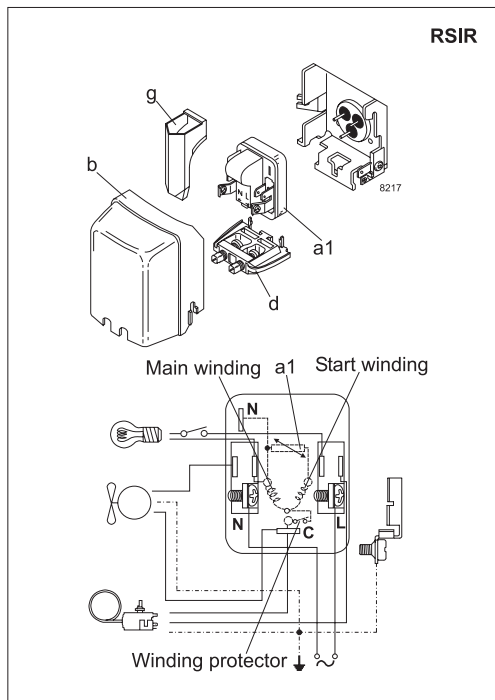
|                    |     |     |     |      |      |       |      |      |      |      |    |   |   |     |    |    |    |
|--------------------|-----|-----|-----|------|------|-------|------|------|------|------|----|---|---|-----|----|----|----|
| Evap. temp. in °C  | -45 | -40 | -35 | -30  | -25  | -23.3 | -20  | -15  | -10  | -6.7 | -5 | 0 | 5 | 7.2 | 10 | 15 | 20 |
| Capacity in W      |     |     |     | 98.8 | 153  | 173   | 217  | 292  | 381  |      |    |   |   |     |    |    |    |
| Power cons. in W   |     |     |     | 163  | 194  | 206   | 230  | 270  | 314  |      |    |   |   |     |    |    |    |
| Current cons. in A |     |     |     | 1.32 | 1.44 | 1.48  | 1.57 | 1.73 | 1.90 |      |    |   |   |     |    |    |    |
| COP in W/W         |     |     |     | 0.61 | 0.79 | 0.84  | 0.94 | 1.08 | 1.21 |      |    |   |   |     |    |    |    |

**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      |     |     |     | 113  | 167  | 188   | 232  | 308  | 400  | 470  | 510  | 639  | 791  | 866  | 968  |    |    |
| Power cons. in W   |     |     |     | 155  | 179  | 188   | 205  | 234  | 265  | 286  | 296  | 329  | 362  | 376  | 394  |    |    |
| Current cons. in A |     |     |     | 1.51 | 1.58 | 1.61  | 1.66 | 1.75 | 1.84 | 1.91 | 1.94 | 2.05 | 2.16 | 2.21 | 2.28 |    |    |
| COP in W/W         |     |     |     | 0.73 | 0.93 | 1.00  | 1.13 | 1.32 | 1.51 | 1.65 | 1.72 | 1.94 | 2.19 | 2.30 | 2.46 |    |    |

**ASHRAE LBP** 220V, 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      |     |     |     | 122  | 188  | 214   | 267  | 361  | 471  |      |    |   |   |     |    |    |    |
| Power cons. in W   |     |     |     | 163  | 194  | 206   | 230  | 270  | 314  |      |    |   |   |     |    |    |    |
| Current cons. in A |     |     |     | 1.32 | 1.44 | 1.48  | 1.57 | 1.73 | 1.90 |      |    |   |   |     |    |    |    |
| COP in W/W         |     |     |     | 0.75 | 0.97 | 1.04  | 1.16 | 1.34 | 1.50 |      |    |   |   |     |    |    |    |



| Accessories for           | FR10G                   | Figure | Code number |
|---------------------------|-------------------------|--------|-------------|
| PTC starting device       | 6.3 mm spade connectors | a1     | 103N0011    |
|                           | 4.8 mm spade connectors |        | 103N0018    |
| Starting relay            | 6.3 mm spade connectors | a2     | 117U6010    |
| Start. capacitor 80 µF    | 6.3 mm spade connectors | c      | 117U5015    |
| Cover                     |                         | b      | 103N2010    |
| Cord relief               |                         | d      | 103N1010    |
| Protection screen for PTC |                         | g      | 103N0476    |

| Test conditions         | EN 12900/CECOMAF | ASHRAE |
|-------------------------|------------------|--------|
| Condensing temperature  | 55°C             | 55°C   |
| Ambient temperature     | 32°C             | 32°C   |
| Suction gas temperature | 32°C             | 32°C   |
| Liquid temperature      | 55°C             | 32°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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