

SC12G Universal Compressor R134a 220-240V 50/60Hz

General

| | |
|-----------------------|----------------------|
| Code number | 104G8240 |
| Approvals | EN 60335-2-34, UL984 |
| Compressors on pallet | 80 |

Application

| Application | | LBP/HBP | LBP/MBP |
|--|----|-----------|-----------|
| Frequency | Hz | 50 | 60 |
| Evaporating temperature | °C | -35 to 15 | -35 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 ₁ | F ₂ | F ₂ | F ₁ | F ₂ | - |
| 38°C | | F ₁ | F ₂ | F ₂ | F ₁ | F ₂ | - |
| 43°C | | F ₁ | F ₂ | F ₂ | F ₁ | F ₂ | - |
| Remarks on application: | | | | | | | |

Motor

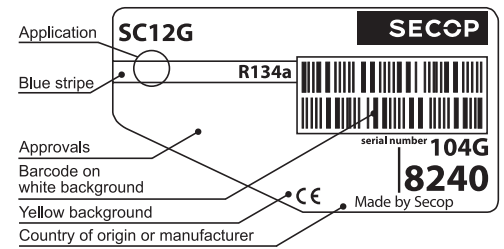
| Motor type | | RSIR/CSIR | |
|---|---|-----------|------|
| LRA (rated after 4 sec. UL984), HST LST | A | 12.6 | 12.4 |
| Cut in Current, HST LST | A | 12.6 | 17.2 |
| Resistance, main start winding (25°C) | Ω | 6.7 | 11.8 |

Design

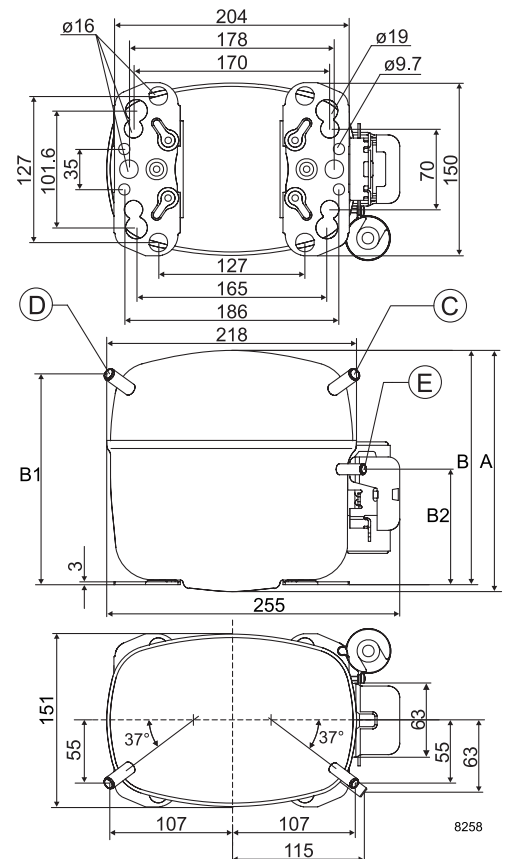
| | | |
|-------------------------------------|-----------------|-------------------|
| Displacement | cm ³ | 12.87 |
| Oil quantity (type) | cm ³ | 550 (polyolester) |
| Maximum refrigerant charge | g | 1300 |
| Free gas volume in compressor | cm ³ | 1510 |
| Weight without electrical equipment | kg | 12.6 |

Dimensions

| | | | |
|----------------------|--------------------------|----|----------------------|
| Height | mm | A | 209 |
| | | B | 203 |
| | | B1 | 183 |
| | | B2 | 100 |
| Suction connector | location/I.D. mm angle | C | 8.2 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
- F₁ = Fan cooling 1.5 m/s
(compressor compartment temperature equal to ambient temperature)
- F₂ = 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 F₂

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|----|
| 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 | | | 64.6 | 113 | 175 | 199 | 252 | 348 | 464 | 553 | 603 | 768 | 960 | 1054 | 1182 | 1437 | |
| Power cons. in W | | | 148 | 187 | 227 | 241 | 268 | 311 | 355 | 385 | 400 | 446 | 493 | 514 | 541 | 589 | |
| Current cons. in A | | | 1.63 | 1.72 | 1.83 | 1.87 | 1.95 | 2.09 | 2.24 | 2.34 | 2.40 | 2.57 | 2.76 | 2.85 | 2.96 | 3.17 | |
| COP in W/W | | | 0.44 | 0.61 | 0.77 | 0.83 | 0.94 | 1.12 | 1.31 | 1.44 | 1.51 | 1.72 | 1.95 | 2.05 | 2.19 | 2.44 | |

EN 12900 Household (CECOMAF) 220V, 60Hz, fan cooling F₂

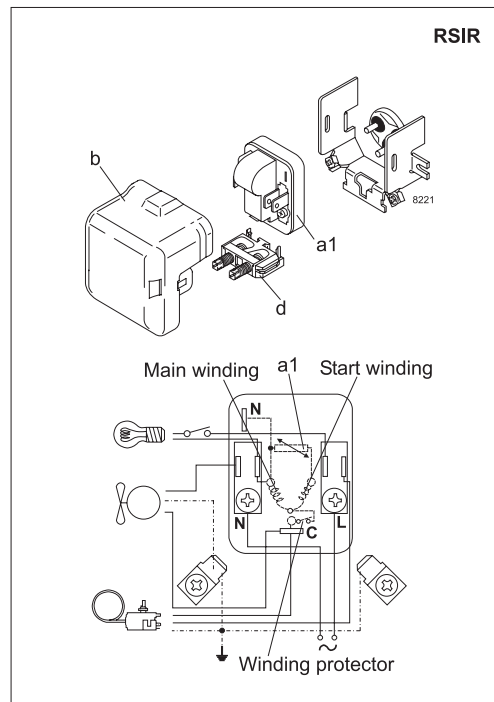
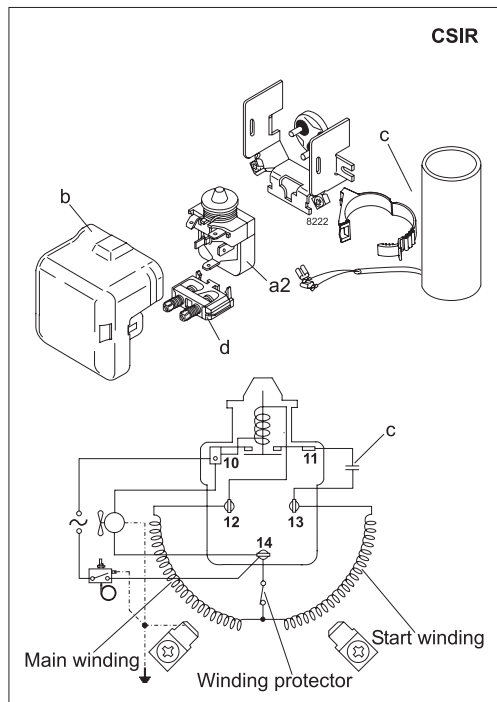
| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|------|---|---|-----|----|----|----|
| Evap. temp. in °C | -45 | -40 | -35 | -30 | -25 | -23.3 | -20 | -15 | -10 | -6.7 | -5 | 0 | 5 | 7.2 | 10 | 15 | 20 |
| Capacity in W | | | 74.2 | 131 | 203 | 232 | 294 | 406 | 542 | 646 | 704 | | | | | | |
| Power cons. in W | | | 172 | 218 | 265 | 281 | 313 | 363 | 415 | 449 | 468 | | | | | | |
| Current cons. in A | | | 1.79 | 1.89 | 2.01 | 2.06 | 2.15 | 2.30 | 2.46 | 2.57 | 2.64 | | | | | | |
| COP in W/W | | | 0.43 | 0.60 | 0.77 | 0.83 | 0.94 | 1.12 | 1.31 | 1.44 | 1.51 | | | | | | |

ASHRAE LBP 220V, 50Hz, fan cooling F₂

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|----|
| 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 | | | 79.6 | 140 | 216 | 246 | 312 | 430 | 574 | 684 | 746 | 951 | 1191 | 1308 | 1469 | 1790 | |
| Power cons. in W | | | 148 | 187 | 227 | 241 | 268 | 311 | 355 | 385 | 400 | 446 | 493 | 514 | 541 | 589 | |
| Current cons. in A | | | 1.63 | 1.72 | 1.83 | 1.87 | 1.95 | 2.09 | 2.24 | 2.34 | 2.40 | 2.57 | 2.76 | 2.85 | 2.96 | 3.17 | |
| COP in W/W | | | 0.54 | 0.75 | 0.95 | 1.02 | 1.16 | 1.38 | 1.62 | 1.78 | 1.87 | 2.13 | 2.42 | 2.55 | 2.72 | 3.04 | |

ASHRAE LBP 220V, 60Hz, fan cooling F₂

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|------|---|---|-----|----|----|----|
| 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 | | | 91.5 | 162 | 251 | 286 | 363 | 501 | 670 | 799 | 872 | | | | | | |
| Power cons. in W | | | 172 | 218 | 265 | 281 | 313 | 363 | 415 | 449 | 468 | | | | | | |
| Current cons. in A | | | 1.79 | 1.89 | 2.01 | 2.06 | 2.15 | 2.30 | 2.46 | 2.57 | 2.64 | | | | | | |
| COP in W/W | | | 0.53 | 0.74 | 0.95 | 1.02 | 1.16 | 1.38 | 1.61 | 1.78 | 1.86 | | | | | | |



| Accessories for | SC12G | Figure | Code number |
|---------------------------|-------------------------|--------|-------------|
| PTC starting device | 6.3 mm spade connectors | a1 | 103N0011 |
| | 4.8 mm spade connectors | | - |
| Starting relay | 6.3 mm spade connectors | a2 | 117U6003 |
| Cover | | b | 103N2009 |
| Start. capacitor 80 µF | 6.3 mm spade connectors | c | 117U5017 |
| Cord relief | | d | 103N1004 |
| Protection screen for PTC | | g | - |

| 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 | 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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