

TL2.5G Universal Compressor R134a 220-240V 50/60Hz

General

| | |
|-----------------------|-------------------------------|
| Code number | 102G4251 |
| Approvals | EN 60335-2-34 Annex AA, UL984 |
| Compressors on pallet | 125 |

Application

| Application | LBP/HBP | | | |
|--|---------|-----------|-----------|--|
| | Hz | 50 | 60 | |
| Frequency | Hz | 50 | 60 | |
| Evaporating temperature | °C | -35 to 15 | -35 to 15 | |
| 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 | | |
|--|----|-----|-----|----------------|-----|-----|----------------|
| | | LBP | MBP | HBP | LBP | MBP | HBP |
| 32°C | | S | S | S | S | S | S |
| 38°C | | S | S | S | S | S | S |
| 43°C | | S | S | F ₂ | S | S | F ₂ |
| Remarks on application: HBP 50Hz: 198 - 254V HBP 60Hz: 207 - 254V | | | | | | | |

Motor

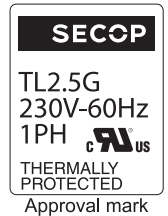
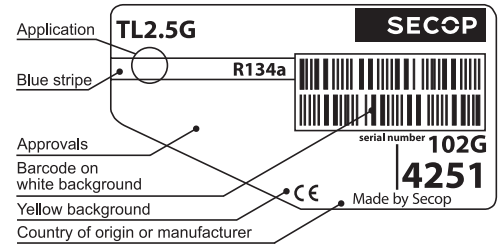
| Motor type | RSIR/CSIR | | |
|---|-----------|------|------|
| LRA (rated after 4 sec. UL984), HST LST | A | 4.5 | 2.8 |
| Cut in Current, HST LST | A | 4.5 | 7.2 |
| Resistance, main start winding (25°C) | Ω | 32.7 | 15.5 |

Design

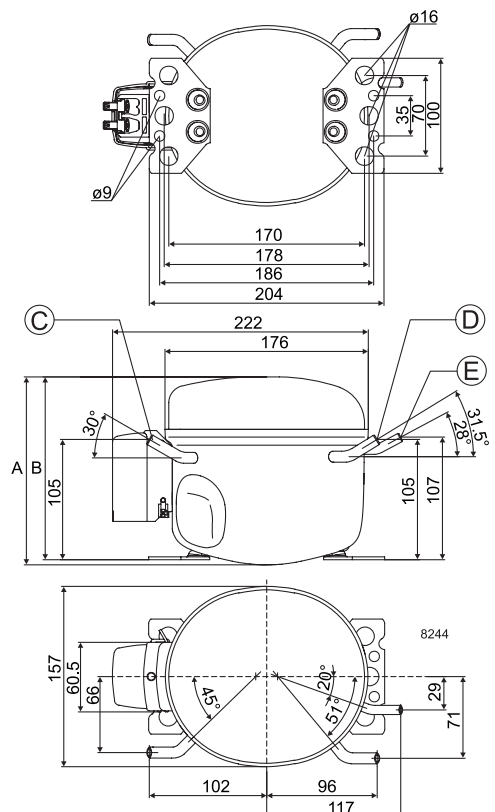
| | | |
|-------------------------------------|-----------------|-------------------|
| Displacement | cm ³ | 2.61 |
| Oil quantity (type) | cm ³ | 280 (polyolester) |
| Maximum refrigerant charge | g | 400 |
| Free gas volume in compressor | cm ³ | 1600 |
| Weight without electrical equipment | kg | 6.7 |

Dimensions

| | | | |
|----------------------|--------------------------|---------------------------|----------------------|
| Height | mm | A | 163 |
| | | B | 159 |
| | | B1 | - |
| | | B2 | - |
| Suction connector | location/I.D. mm angle | C | 6.2 30° |
| | | material comment | Copper Rubber plug |
| Process connector | location/I.D. mm angle | D | 6.2 31.5° |
| | | material comment | Copper Rubber plug |
| Discharge connector | location/I.D. mm angle | E | 5.0 28° |
| | | material comment | Copper Rubber plug |
| Oil cooler connector | location/I.D. mm angle | F | - |
| | | material comment | - |
| Connector tolerance | I.D. mm | ±0.09, on 5.0 +0.12/+0.20 | |
| 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, static cooling

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|----|
| 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 | | | 11.0 | 22.4 | 35.5 | 40.5 | 50.9 | 69.0 | 90.4 | 107 | 116 | 145 | 179 | 196 | 219 | 264 | |
| Power cons. in W | | | 47.6 | 53.1 | 59.6 | 62.0 | 67.0 | 75.1 | 83.9 | 90.0 | 93.3 | 103 | 113 | 118 | 124 | 134 | |
| Current cons. in A | | | 0.48 | 0.49 | 0.50 | 0.51 | 0.52 | 0.53 | 0.55 | 0.57 | 0.58 | 0.60 | 0.63 | 0.64 | 0.66 | 0.70 | |
| COP in W/W | | | 0.23 | 0.42 | 0.60 | 0.65 | 0.76 | 0.92 | 1.08 | 1.18 | 1.24 | 1.41 | 1.58 | 1.66 | 1.77 | 1.97 | |

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

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|----|
| 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 | | | 13.5 | 26.7 | 41.9 | 47.6 | 59.6 | 80.5 | 105 | 124 | 134 | 168 | 208 | 227 | 253 | 306 | |
| Power cons. in W | | | 53.2 | 59.8 | 67.5 | 70.4 | 76.3 | 85.9 | 96.3 | 104 | 107 | 119 | 131 | 137 | 144 | 156 | |
| Current cons. in A | | | 0.46 | 0.47 | 0.48 | 0.49 | 0.50 | 0.51 | 0.53 | 0.55 | 0.55 | 0.58 | 0.61 | 0.62 | 0.64 | 0.67 | |
| COP in W/W | | | 0.25 | 0.45 | 0.62 | 0.68 | 0.78 | 0.94 | 1.09 | 1.19 | 1.25 | 1.41 | 1.58 | 1.66 | 1.77 | 1.96 | |

ASHRAE LBP 220V, 50Hz, static cooling

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|----|
| 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 | | | 14.3 | 28.4 | 44.6 | 50.7 | 63.6 | 86.1 | 113 | 133 | 144 | 181 | 224 | 245 | 274 | 331 | |
| Power cons. in W | | | 47.5 | 53.0 | 59.5 | 61.9 | 66.9 | 75.0 | 83.7 | 89.8 | 93.0 | 103 | 113 | 117 | 123 | 134 | |
| Current cons. in A | | | 0.48 | 0.49 | 0.50 | 0.50 | 0.51 | 0.53 | 0.55 | 0.57 | 0.58 | 0.60 | 0.63 | 0.64 | 0.66 | 0.69 | |
| COP in W/W | | | 0.30 | 0.53 | 0.75 | 0.82 | 0.95 | 1.15 | 1.35 | 1.48 | 1.55 | 1.76 | 1.98 | 2.09 | 2.22 | 2.48 | |

ASHRAE LBP 220V, 60Hz, static cooling

| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|----|
| 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 | | | 17.5 | 33.8 | 52.5 | 59.5 | 74.4 | 100 | 131 | 154 | 167 | 210 | 259 | 284 | 317 | 383 | |
| Power cons. in W | | | 53.1 | 59.7 | 67.4 | 70.2 | 76.1 | 85.7 | 96.1 | 103 | 107 | 119 | 131 | 136 | 143 | 155 | |
| Current cons. in A | | | 0.46 | 0.47 | 0.48 | 0.49 | 0.50 | 0.51 | 0.53 | 0.55 | 0.55 | 0.58 | 0.61 | 0.62 | 0.64 | 0.67 | |
| COP in W/W | | | 0.33 | 0.57 | 0.78 | 0.85 | 0.98 | 1.17 | 1.36 | 1.49 | 1.56 | 1.77 | 1.99 | 2.09 | 2.22 | 2.47 | |



| Accessories for | TL2.5G | 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 | 117U6007 |
| Start. capacitor 60 µF | 6.3 mm spade connectors | c | 117U5014 |
| Cover | | b | 103N2011 |
| Cord relief | | d | 103N1010 |
| Protection screen for PTC | | g | 103N0476 |

| Test conditions | EN 12900/CECOMAF | ASHRAE LBP |
|-------------------------|------------------|------------|
| Condensing temperature | 55°C | 54.4°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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