

GVM57AT

Energy-optimized Tropical Compressor

R134a

220-240V 50Hz

General

| | |
|-----------------------|-----------------------------|
| Code number | 102A4903 |
| Approvals | EN 60335-2-34 with Annex AA |
| Compressors on pallet | 125 |

Application

| | | |
|------------------------------------------------|-----|-------------------|
| Application | LBP | |
| Frequency | Hz | 50 60 |
| Evaporating temperature | °C | -35 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 | | S | - | - | - | - | - |
| 38°C | | S | - | - | - | - | - |
| 43°C | | S | - | - | - | - | - |
| Remarks on application: | | | | | | | |

Motor

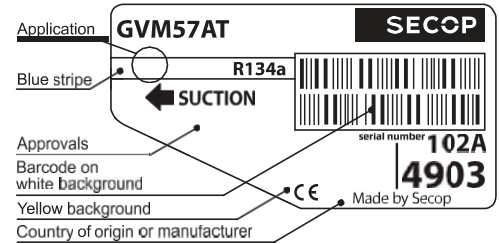
| | | |
|-------------------------------------------|----------------|----------------|
| Motor type | RSIR/RSCR/CSIR | |
| LRA (rated after 4 sec. UL984), HST LST | A | 5.9 5.5 |
| Cut in Current, HST LST | A | 5.9 10.1 |
| Resistance, main start winding (25°C) | Ω | 13.2 14.8 |

Design

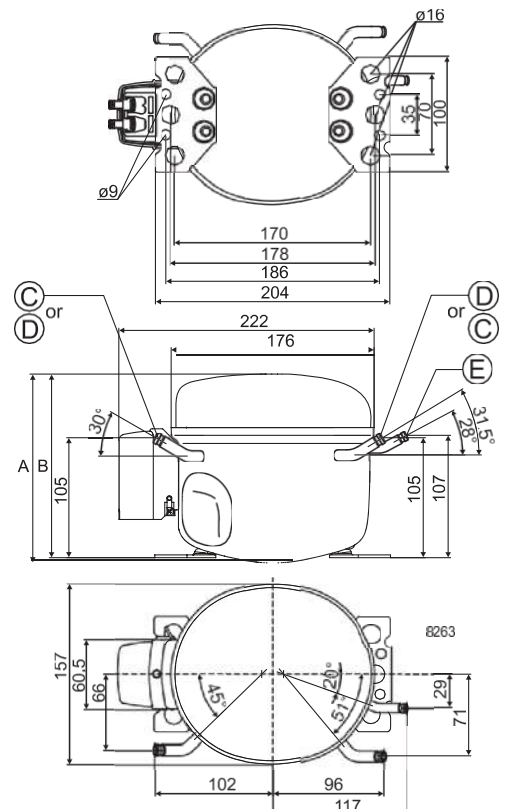
| | | |
|-------------------------------------|-----------------|-------------------|
| Displacement | cm ³ | 5.70 |
| Oil quantity (type) | cm ³ | 180 (polyolester) |
| Maximum refrigerant charge | g | 400 |
| Free gas volume in compressor | cm ³ | 1790 |
| Weight without electrical equipment | kg | 7.5 |

Dimensions

| | | | |
|----------------------|--------------------------|---------------------------|-------------|
| Height | mm | A | 173 |
| | | B | 169 |
| | | 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, 2 W PTC consumption incl., 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 | | | 66.3 | 90.3 | 120 | 132 | 156 | 200 | 253 | | | | | | | | |
| Power cons. in W | | | 90.0 | 105 | 120 | 125 | 136 | 152 | 170 | | | | | | | | |
| Current cons. in A | | | 0.89 | 0.92 | 0.96 | 0.97 | 1.00 | 1.06 | 1.13 | | | | | | | | |
| COP in W/W | | | 0.74 | 0.86 | 1.00 | 1.05 | 1.15 | 1.32 | 1.48 | | | | | | | | |

EN 12900 Household (CECOMAF) 220V, 50Hz, RC 4µF, 2 W PTC consumption incl., static cooling

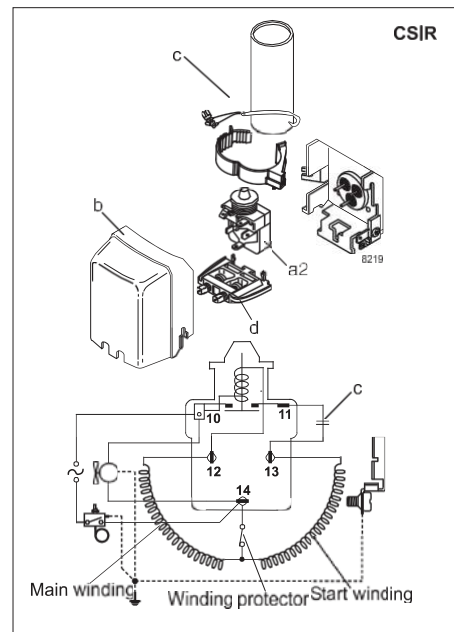
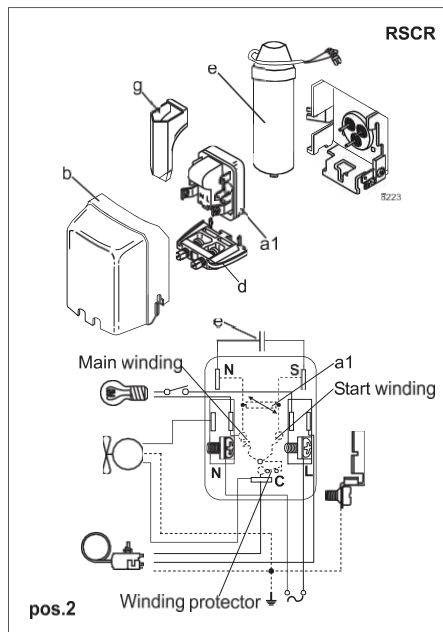
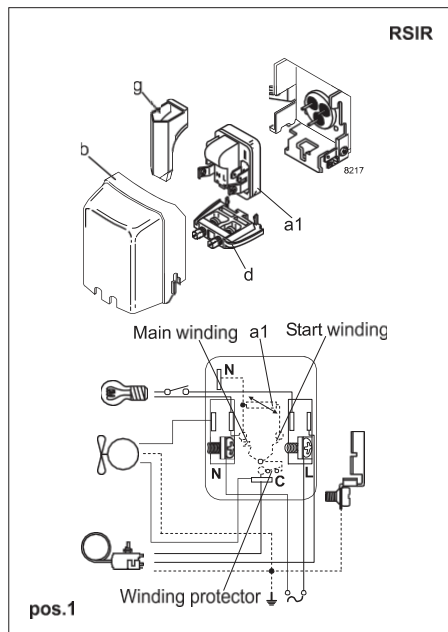
| | | | | | | | | | | | | | | | | | |
|--------------------|-----|-----|------|------|------|-------|------|------|------|------|----|---|---|-----|----|----|----|
| Evap. temp in °C | -45 | -40 | -35 | -30 | -25 | -23.3 | -20 | -15 | -10 | -6.7 | -5 | 0 | 5 | 7.2 | 10 | 15 | 20 |
| Capacity in W | | | 66.3 | 90.3 | 120 | 132 | 156 | 200 | 253 | | | | | | | | |
| Power cons. in W | | | 87.6 | 101 | 115 | 120 | 130 | 146 | 163 | | | | | | | | |
| Current cons. in A | | | 0.61 | 0.65 | 0.70 | 0.71 | 0.75 | 0.82 | 0.89 | | | | | | | | |
| COP in W/W | | | 0.76 | 0.89 | 1.04 | 1.09 | 1.20 | 1.37 | 1.55 | | | | | | | | |

ASHRAE LBP 220V, 50Hz, 2 W PTC consumption incl., 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 | | | 82.3 | 112 | 149 | 163 | 194 | 248 | 314 | | | | | | | | |
| Power cons. in W | | | 90.1 | 105 | 120 | 125 | 135 | 152 | 170 | | | | | | | | |
| Current cons. in A | | | 0.89 | 0.92 | 0.96 | 0.97 | 1.00 | 1.06 | 1.12 | | | | | | | | |
| COP in W/W | | | 0.91 | 1.07 | 1.24 | 1.31 | 1.43 | 1.64 | 1.85 | | | | | | | | |

ASHRAE LBP 220V, 50Hz, RC 4µF, 2 W PTC consumption incl., 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 | | | 82.3 | 112 | 149 | 163 | 194 | 248 | 314 | | | | | | | | |
| Power cons. in W | | | 87.8 | 101 | 115 | 120 | 130 | 145 | 162 | | | | | | | | |
| Current cons. in A | | | 0.61 | 0.65 | 0.69 | 0.71 | 0.75 | 0.81 | 0.89 | | | | | | | | |
| COP in W/W | | | 0.94 | 1.10 | 1.29 | 1.36 | 1.49 | 1.71 | 1.94 | | | | | | | | |



| Accessories for | GVM57AT | Figure | Code number | Test conditions | EN 12900/CECOMAF | ASHRAE |
|---------------------------|-------------------------|-----------------------|-------------|-----------------------------|------------------|--------------------|
| PTC starting device | 6.3 mm spade connectors | a1 (pos. 1) | 103N0011 | Condensing temperature | 55°C | 54.4°C |
| | 4.8 mm spade connectors | | 103N0018 | Ambient temperature | 32°C | 32°C |
| PTC starting device | 6.3 mm spade connectors | a1 (pos. 2) | 103N0016 | Suction gas temperature | 32°C | 32°C |
| | 4.8 mm spade connectors | | 103N0021 | Liquid temperature | no subcooling | 32°C |
| Starting relay | 6.3 mm spade connectors | a2 | 117U6004 | | | |
| Start capacitor 60 µF | 6.3 mm spade connectors | c | 117U5014 | | | |
| Cover | | b | 103N2010 | | | |
| Cord relief | | d | 103N1010 | | | |
| Run capacitor | 6.3 mm spade connectors | e | 117-7117 | | | |
| 4 µF (optional) | 4.8 mm spade connectors | | 117-7119 | | | |
| Protection screen for PTC | | g | 103N0476 | | | |
| | | | | 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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