## GVM44AT <br> Tropical Compressor <br> R134a <br> 220-240V 50Hz

General

| Code number | 102A4902 |
| :--- | :---: |
| Approvals | EN 60335-2-34 |
| Compressors on pallet | 125 |

## Application

| Application |  | LBP |  |
| :--- | :---: | :---: | :---: |
| Frequency | Hz | 50 | 60 |
| Evaporating temperature | ${ }^{\circ} \mathrm{C}$ | -35 to -10 | - |
| Voltage range | V | $187-254$ | - |
| Max. condensing temperature continuous (short) | ${ }^{\circ} \mathrm{C}$ | $60(70)$ | - |
| Max. winding temperature continuous (short) | ${ }^{\circ} \mathrm{C}$ | $125(135)$ | - |

## Cooling requirements

| Frequency | Hz | 50 |  |  | 60 |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Application | LBP | MBP | HBP | LBP | MBP | HBP |  |
| $32^{\circ} \mathrm{C}$ | S | - | - | - | - | - |  |
| $38^{\circ} \mathrm{C}$ | S | - | - | - | - | - |  |
| $43^{\circ} \mathrm{C}$ | S | - | - | - | - | - |  |

Remarks on application: In capillary tube systems where non-equalized pressures may occur at compressor start, or in areas with short power supply drop-outs, a starting capacitor can be used for ensuring a successful start (CSIR).

## Motor

| Motor type | RSIR/CSIR |  |  |
| :--- | :---: | :---: | :---: |
| LRA (rated after 4 sec. UL984), HST \| LST | A | 5.7 | 5.4 |
| Cut in Current, HST \| LST | A | 5.7 | 9.7 |
| Resistance, main \| start winding $\left(25^{\circ} \mathrm{C}\right)$ | $\Omega$ | 14.5 | 14.8 |

## Design

| Displacement | $\mathrm{cm}^{3}$ | 5.08 |
| :--- | ---: | :---: |
| Oil quantity (type) | $\mathrm{cm}^{3}$ | 180 (polyolester) |
| Maximum refrigerant charge | g | 400 |
| Free gas volume in compressor | $\mathrm{cm}^{3}$ | 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 | $6.2 \mid 30^{\circ}$ |
|  | material \| comment | Copper \| Rubber plug |  |
| Process connector | location/I.D. mm \| angle | D | $6.2 \mid 31.5^{\circ}$ |
|  | material \| comment | Copper \| Rubber plug |  |
| Discharge connector | location/I.D. mm \| angle | E | $5.0 \mid 28^{\circ}$ |
|  | material \| comment | Copper \| Rubber plug |  |
| Oil cooler connector | location/I.D. mm \| angle | F | - |
|  | material \| comment |  | - |
| Connector tolerance | I.D. mm | $\pm 0.09$, on $5.0+0.12 /+0.20$ |  |
| Remarks: |  |  |  |



S = Static cooling normally sufficient
O = Oil cooling
$\mathrm{F}_{1}=$ Fan cooling $1.5 \mathrm{~m} / \mathrm{s}$
(compressor compartment temperature equal to ambient temperature)
F2 = Fan cooling $3.0 \mathrm{~m} / \mathrm{s}$ necessary
SG = Suction gas cooling normally sufficent

- = not applicable in this area


EN 12900 Household (CECOMAF) $220 \mathrm{~V}, 50 \mathrm{~Hz}$, static cooling, PTC consumption incl.

| Evap. temp in ${ }^{\circ} \mathrm{C}$ | -45 | -40 | -35 | -30 | -25 | -23.3 | -20 | -15 | -10 | -6.7 | -5 | 0 | 5 | 7.2 | 10 | 15 | 20 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Capacity in W |  |  | 47.8 | 70.7 | 98.0 | 109 | 131 | 170 | 216 |  |  |  |  |  |  |  |  |
| Power cons. in W |  |  | 84.5 | 99.2 | 114 | 120 | 131 | 147 | 165 |  |  |  |  |  |  |  |  |
| Current cons. in A |  |  | 0.96 | 0.98 | 1.01 | 1.02 | 1.05 | 1.10 | 1.15 |  |  |  |  |  |  |  |  |
| COP in W/W |  |  | 0.57 | 0.71 | 0.86 | 0.91 | 1.00 | 1.15 | 1.30 |  |  |  |  |  |  |  |  |

ASHRAE LBP 220V, 50Hz, static cooling, PTC consumption incl.

| Evap. temp in ${ }^{\circ} \mathrm{C}$ | -45 | -40 | -35 | -30 | -25 | -23.3 | -20 | -15 | -10 | -6.7 | -5 | 0 | 5 | 7.2 | 10 | 15 | 20 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Capacity in W |  |  | 58.9 | 87.2 | 121 | 134 | 161 | 209 | 267 |  |  |  |  |  |  |  |  |
| Power cons. in W |  |  | 84.5 | 99.2 | 114 | 120 | 131 | 147 | 165 |  |  |  |  |  |  |  |  |
| Current cons. in A |  |  | 0.96 | 0.98 | 1.01 | 1.02 | 1.05 | 1.10 | 1.15 |  |  |  |  |  |  |  |  |
| COP in W/W |  |  | 0.70 | 0.88 | 1.06 | 1.12 | 1.24 | 1.42 | 1.61 |  |  |  |  |  |  |  |  |



| Accessories for | GVM44AT | Figure | Code number |
| :---: | :---: | :---: | :---: |
| PTC starting device | 6.3 mm spade connectors | a1 | 103N0011 |
|  | 4.8 mm spade connectors |  | 103 N 0018 |
| Starting relay | 6.3 mm spade connectors | a2 | 117 U 6000 |
| Start capacitor $60 \mu \mathrm{~F}$ | 6.3 mm spade connectors | c | 117 U 014 |
| Cover |  | b | 103N2010 |
| Cord relief |  | d | 103N1010 |
| Protection screen for PTC |  | g | 103N0476 |


| Test conditions | EN 12900/ <br> CECOMAF | ASHRAE |
| :--- | :---: | :---: |
| Condensing temperature | $55^{\circ} \mathrm{C}$ | $55^{\circ} \mathrm{C}$ |
| Ambient temperature | $32^{\circ} \mathrm{C}$ | $32^{\circ} \mathrm{C}$ |
| Suction gas temperature | $32^{\circ} \mathrm{C}$ | $32^{\circ} \mathrm{C}$ |
| Liquid temperature | no subcooling | $32^{\circ} \mathrm{C}$ |


| Mounting accessories |  | Code number |
| :--- | :--- | :---: |
| Bolt joint for one comp. | $\varnothing: 16 \mathrm{~mm}$ | $118-1917$ |
| Bolt joint in quantities | $\varnothing: 16 \mathrm{~mm}$ | $118-1918$ |
| Snap-on in quantities | $\varnothing: 16 \mathrm{~mm}$ | $118-1919$ |

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