

Technical Data Sheet

ENGINEERING
TOMORROW



Compressor model **B22G**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R134a**
 Compressor status

| APPLICATION | | COMPRESSOR | | MOTOR | |
|----------------------|---------------------|--------------|----------------------|--------------------------|---------------|
| Application | High Back Pressure | Displacement | 2,20 cm ³ | Voltage/Frequency | 220-240V 50Hz |
| Refrigerant | R134a | Diameter | 17,20 mm | Voltage range | 187-255 V |
| Evaporating Temp. | -15,0 °C to 10,0 °C | Stroke | 9,40 mm | Type | RSIR |
| Expansion | Capillar/Valve | Net Weight | 4,60 Kg | Phase number | 1 PH |
| Comp. Cooling | Static/Fan cooled | Oil type | POE 32 | Locked Rotor Amps (LRA) | 2,70 A |
| Max. ambient temp. | 43,0 °C | Oil charge | 130 cm ³ | Main W. resist. at 25°C | 11,00 Ω |
| Compatible refriger. | R1234yf | HP | 1/14 hp | Start W. resist. at 25°C | 45,50 Ω |

NOMINAL PERFORMANCE

| | ASHRAE | CECOMAF |
|------------------|--------------|--------------|
| Cooling Capacity | 160 kCal/h | 152 W |
| COP | 1,94 W/W | 1,64 W/W |
| EER | 1,67 kCal/Wh | 1,42 kCal/Wh |
| Input Power | 96 W | 93 W |
| Current | 0,72 A | 0,68 A |

APPROVALS

TEST CYCLE CONDITIONS

| | ASHRAE HBP (D) | CECOMAF HBP (C) |
|---------------------------------------|-------------------|--------------------|
| Evaporating temp. (T _e) | 7,2 °C | 5,0 °C |
| Condensing temp. (T _c) | 55,0 °C | 55,0 °C |
| Liquid temp. (T _{liq.}) | 46,0 °C | 55,0 °C |
| Ambient temp. (T _{amb.}) | 35,0 °C | 32,0 °C |
| Suction temp. (T _{suction}) | 35,0 °C | 32,0 °C |
| Voltage/Frequency | 220 V 50 Hz | 220 V 50 Hz |

ELECTRICAL COMPONENTS

| | | | | |
|-------------------------|---------------------|------------------|--|--|
| Relay | Option 1 | | | |
| Reference | QP2-22 (002) | | | |
| Voltage | V | | | |
| Resistance | Ω | | | |
| Protector | Option 1 | Option 2 | | |
| Reference | BT35-120A61D3 (106) | DRB14N61A1 (106) | | |
| Current | | | | |
| Time check | | | | |
| Disc temp. (Open/Close) | | | | |



ASHRAE

| Tc °C | Te °C | Cooling Capacity kCal/h | Consumption W | Current A | COP W/W | EER kCal/Wh |
|----------|----------|-------------------------------|------------------|--------------|------------|----------------|
| 40 | -15 | 79 | 63 | 0,56 | 1,46 | 1,25 |
| 40 | -10 | 99 | 66 | 0,54 | 1,74 | 1,50 |
| 40 | -5 | 125 | 69 | 0,52 | 2,09 | 1,80 |
| 40 | 0 | 157 | 73 | 0,52 | 2,50 | 2,15 |
| 40 | 5 | 195 | 77 | 0,53 | 2,94 | 2,53 |
| 40 | 7,2 | 214 | 79 | 0,53 | 3,15 | 2,70 |
| 40 | 10 | 239 | 82 | 0,55 | 3,41 | 2,94 |

| | | | | | | |
|----|-----|-----|----|------|------|------|
| 45 | -15 | 72 | 64 | 0,55 | 1,30 | 1,12 |
| 45 | -10 | 89 | 68 | 0,53 | 1,52 | 1,31 |
| 45 | -5 | 113 | 72 | 0,52 | 1,81 | 1,55 |
| 45 | 0 | 142 | 77 | 0,53 | 2,14 | 1,84 |
| 45 | 5 | 178 | 82 | 0,55 | 2,52 | 2,17 |
| 45 | 7,2 | 196 | 85 | 0,57 | 2,69 | 2,32 |
| 45 | 10 | 220 | 88 | 0,60 | 2,92 | 2,51 |

| | | | | | | |
|----|-----|-----|----|------|------|------|
| 50 | -15 | 64 | 65 | 0,54 | 1,14 | 0,98 |
| 50 | -10 | 79 | 70 | 0,52 | 1,31 | 1,13 |
| 50 | -5 | 100 | 76 | 0,52 | 1,54 | 1,33 |
| 50 | 0 | 128 | 81 | 0,55 | 1,83 | 1,57 |
| 50 | 5 | 161 | 87 | 0,60 | 2,15 | 1,85 |
| 50 | 7,2 | 178 | 90 | 0,63 | 2,30 | 1,97 |
| 50 | 10 | 201 | 94 | 0,69 | 2,49 | 2,14 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 55 | -15 | 57 | 67 | 0,54 | 0,99 | 0,86 |
| 55 | -10 | 70 | 72 | 0,52 | 1,12 | 0,96 |
| 55 | -5 | 88 | 79 | 0,53 | 1,30 | 1,12 |
| 55 | 0 | 113 | 85 | 0,58 | 1,54 | 1,33 |
| 55 | 5 | 144 | 92 | 0,67 | 1,82 | 1,56 |
| 55 | 7,2 | 160 | 96 | 0,72 | 1,94 | 1,67 |
| 55 | 10 | 181 | 100 | 0,80 | 2,11 | 1,82 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 60 | -15 | 50 | 68 | 0,53 | 0,85 | 0,73 |
| 60 | -10 | 60 | 75 | 0,52 | 0,93 | 0,80 |
| 60 | -5 | 76 | 82 | 0,55 | 1,08 | 0,93 |
| 60 | 0 | 99 | 90 | 0,63 | 1,28 | 1,10 |
| 60 | 5 | 127 | 98 | 0,76 | 1,52 | 1,31 |
| 60 | 7,2 | 142 | 101 | 0,83 | 1,63 | 1,40 |
| 60 | 10 | 162 | 106 | 0,94 | 1,78 | 1,53 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 65 | -15 | 42 | 69 | 0,53 | 0,71 | 0,61 |
| 65 | -10 | 50 | 77 | 0,53 | 0,76 | 0,65 |
| 65 | -5 | 64 | 85 | 0,58 | 0,88 | 0,75 |
| 65 | 0 | 84 | 94 | 0,69 | 1,05 | 0,90 |
| 65 | 5 | 110 | 103 | 0,86 | 1,25 | 1,08 |
| 65 | 7,2 | 124 | 107 | 0,96 | 1,35 | 1,16 |
| 65 | 10 | 143 | 112 | 1,11 | 1,48 | 1,28 |

CECOMAF

| Tc °C | Te °C | Cooling Capacity W | Consumption W | Current A | COP W/W | EER kCal/Wh |
|----------|----------|--------------------------|------------------|--------------|------------|----------------|
| 40 | -15 | 85 | 63 | 0,56 | 1,34 | 1,16 |
| 40 | -10 | 107 | 66 | 0,54 | 1,61 | 1,39 |
| 40 | -5 | 135 | 70 | 0,52 | 1,93 | 1,67 |
| 40 | 0 | 169 | 73 | 0,52 | 2,30 | 1,99 |
| 40 | 5 | 210 | 78 | 0,53 | 2,71 | 2,34 |
| 40 | 7,2 | 230 | 80 | 0,54 | 2,89 | 2,50 |
| 40 | 10 | 257 | 82 | 0,55 | 3,14 | 2,71 |

| | | | | | | |
|----|-----|-----|----|------|------|------|
| 45 | -15 | 77 | 65 | 0,55 | 1,19 | 1,03 |
| 45 | -10 | 96 | 69 | 0,53 | 1,39 | 1,20 |
| 45 | -5 | 121 | 73 | 0,52 | 1,66 | 1,43 |
| 45 | 0 | 153 | 78 | 0,53 | 1,97 | 1,70 |
| 45 | 5 | 191 | 83 | 0,56 | 2,31 | 1,99 |
| 45 | 7,2 | 210 | 85 | 0,58 | 2,46 | 2,13 |
| 45 | 10 | 235 | 88 | 0,61 | 2,67 | 2,31 |

| | | | | | | |
|----|-----|-----|----|------|------|------|
| 50 | -15 | 68 | 66 | 0,54 | 1,04 | 0,90 |
| 50 | -10 | 85 | 71 | 0,52 | 1,20 | 1,03 |
| 50 | -5 | 107 | 76 | 0,52 | 1,41 | 1,22 |
| 50 | 0 | 136 | 82 | 0,55 | 1,66 | 1,44 |
| 50 | 5 | 172 | 88 | 0,61 | 1,95 | 1,69 |
| 50 | 7,2 | 189 | 91 | 0,64 | 2,09 | 1,80 |
| 50 | 10 | 213 | 94 | 0,70 | 2,26 | 1,96 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 55 | -15 | 60 | 67 | 0,53 | 0,90 | 0,78 |
| 55 | -10 | 74 | 73 | 0,52 | 1,01 | 0,87 |
| 55 | -5 | 93 | 79 | 0,53 | 1,18 | 1,02 |
| 55 | 0 | 120 | 86 | 0,59 | 1,39 | 1,20 |
| 55 | 5 | 152 | 93 | 0,68 | 1,64 | 1,42 |
| 55 | 7,2 | 169 | 96 | 0,73 | 1,75 | 1,52 |
| 55 | 10 | 192 | 100 | 0,81 | 1,91 | 1,65 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 60 | -15 | 52 | 68 | 0,53 | 0,76 | 0,66 |
| 60 | -10 | 63 | 75 | 0,52 | 0,83 | 0,72 |
| 60 | -5 | 80 | 82 | 0,55 | 0,97 | 0,84 |
| 60 | 0 | 103 | 90 | 0,63 | 1,15 | 0,99 |
| 60 | 5 | 133 | 98 | 0,77 | 1,36 | 1,17 |
| 60 | 7,2 | 148 | 102 | 0,84 | 1,46 | 1,26 |
| 60 | 10 | 170 | 107 | 0,96 | 1,59 | 1,38 |

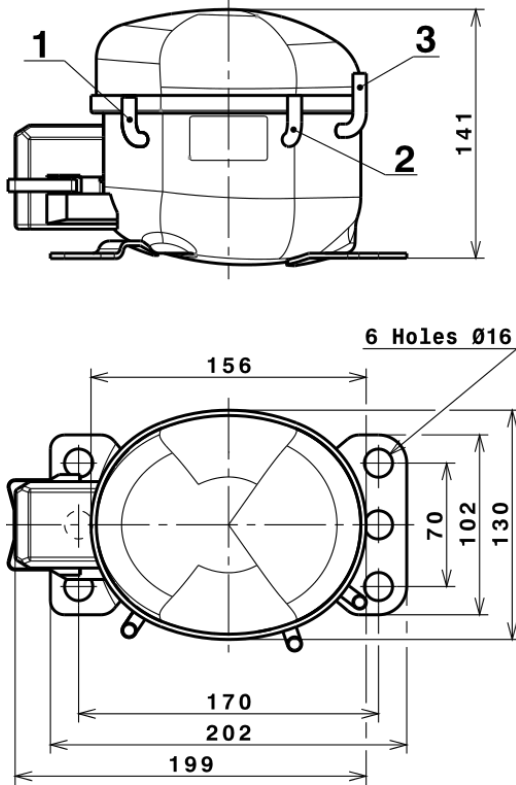
| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 65 | -15 | 44 | 69 | 0,53 | 0,63 | 0,54 |
| 65 | -10 | 52 | 77 | 0,53 | 0,67 | 0,58 |
| 65 | -5 | 66 | 86 | 0,58 | 0,77 | 0,67 |
| 65 | 0 | 87 | 94 | 0,70 | 0,92 | 0,80 |
| 65 | 5 | 114 | 103 | 0,88 | 1,10 | 0,95 |
| 65 | 7,2 | 128 | 107 | 0,98 | 1,19 | 1,03 |
| 65 | 10 | 148 | 113 | 1,14 | 1,31 | 1,13 |

EN12900

| X | Cooling Capacity (W) | Consumption (W) | Current (A) | Mass Flow (kg/h) |
|---|----------------------|-----------------|---------------|---------------------|
| 1 | 300,4719058078 | 41,3128808775 | 0,0527184852 | 5,3913207415292 |
| 2 | 11,9180107330 | -0,8051250174 | -0,0234716070 | 0,23010583500869 |
| 3 | -3,3412225572 | 0,8515429545 | 0,0101268284 | -0,042234361520896 |
| 4 | 0,1265884719 | 0,0081357662 | 0,0008382632 | 0,0036136697628762 |
| 5 | -0,1117311406 | 0,0407636452 | 0,0007547816 | -0,0013106291354752 |

| | |
|----------|---|
| Equation | $x_1 + x_2Te + x_3Tc + x_4Te^2 + x_5TeTc$ |
|----------|---|

COMPRESSOR DIMENSIONS

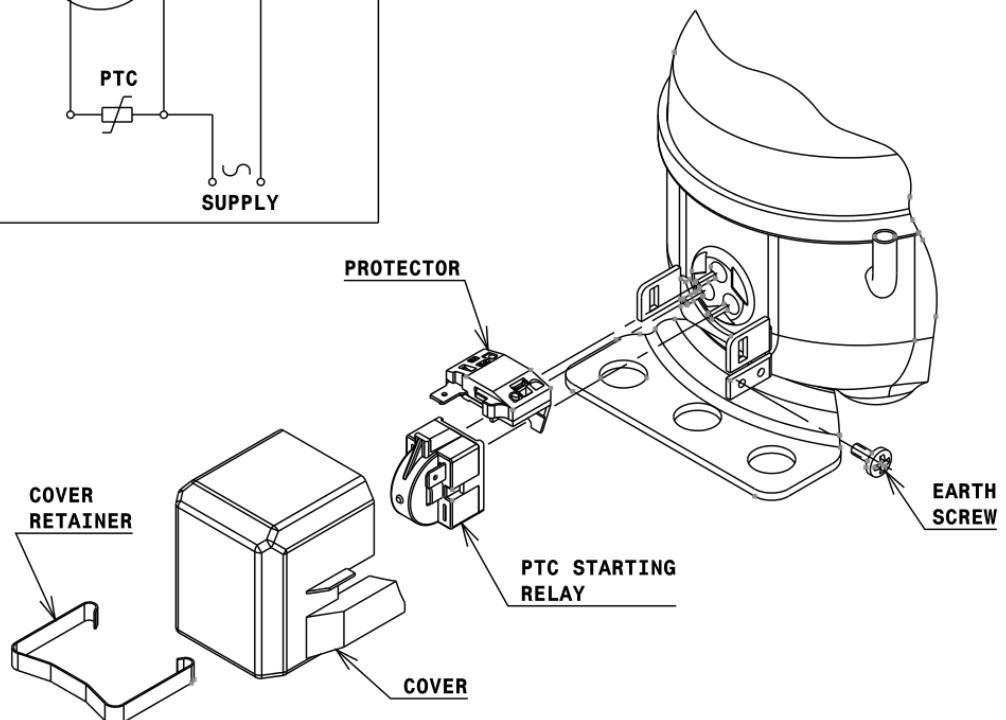
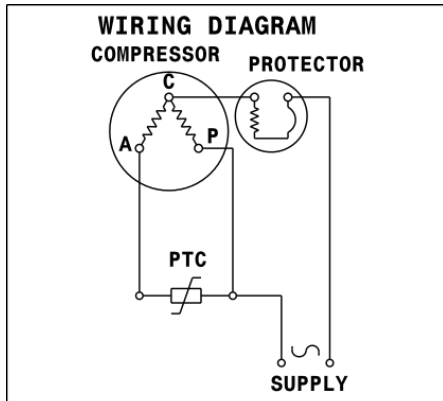


DESIGNATION INTERNAL DIAM.

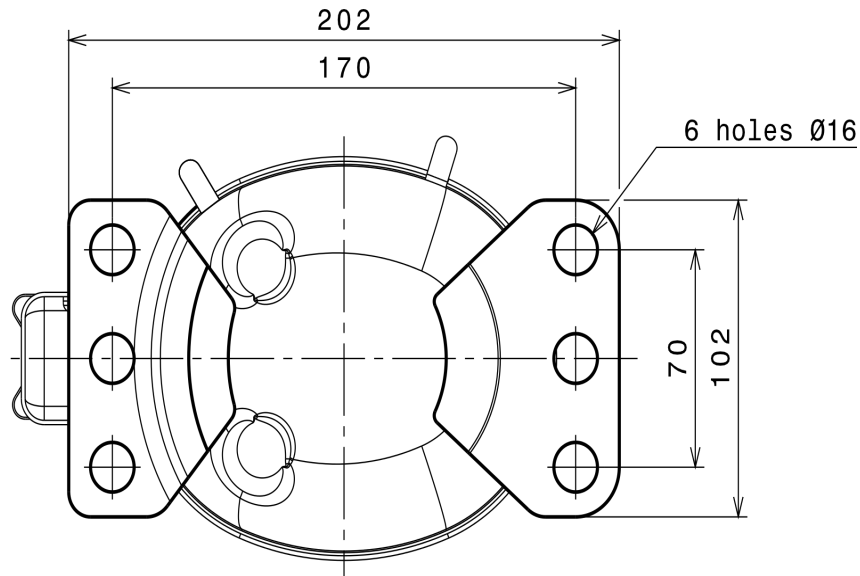
| DESIGNATION | INTERNAL DIAM. |
|-------------|----------------|
| 1 Suction | 6,1 mm |
| 2 Service | 6,1 mm |
| 3 Discharge | 5,1 mm |

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

RSIR CONNECTION (PTC) (B, Small L ranges)



FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø16 holes (170x70 net)



SOA

SOA R134a HBP

