

Technical Data Sheet

Compressor model **GP14FB**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R134a**

APPLICATION

| | |
|----------------------|----------------------|
| Application | Low Back Pressure |
| Refrigerant | R134a |
| Evaporating Temp. | -35,0 °C to -10,0 °C |
| Expansion | Capillar/Valve |
| Comp. Cooling | Fan cooled |
| Max. ambient temp. | 43,0 °C |
| Compatible refriger. | R1234yf |

COMPRESSOR

| | |
|--------------|-----------------------|
| Displacement | 14,17 cm ³ |
| Diameter | 31,19 mm |
| Stroke | 18,54 mm |
| Net Weight | 10,36 Kg |
| Oil type | ISO VG 32 ESTER |
| Oil charge | 470 cm ³ |

MOTOR

| | |
|--------------------------|---------------|
| Nominal Power | 3/8 hp |
| Voltage/Frequency | 220-240V 50Hz |
| Voltage range | 187-255 V |
| Type | CSIR |
| Phase number | 1 PH |
| Locked Rotor Amps (LRA) | 12,50 A |
| Max. Cont. Current (MCC) | 2,50 A |
| Main W. resist. at 25°C | 9,93 Ω |
| Start W. resist. at 25°C | 15,17 Ω |

NOMINAL PERFORMANCE

| | ASHRAE | CECOMAF |
|------------------|--------------|--------------|
| Cooling Capacity | 269 kCal/h | 228 W |
| COP | 1,16 W/W | 0,90 W/W |
| EER | 1,00 kCal/Wh | 0,77 kCal/Wh |
| Input Power | 270 W | 254 W |
| Current | 1,80 A | 1,75 A |

APPROVALS



TEST CYCLE CONDITIONS

| | ASHRAE LBP (B) | CECOMAF LBP (A) |
|---------------------------------------|-------------------|--------------------|
| Evaporating temp. (T _e) | -23,3 °C | -25,0 °C |
| Condensing temp. (T _c) | 55,0 °C | 55,0 °C |
| Liquid temp. (T _{liq.}) | 32,0 °C | 55,0 °C |
| Ambient temp. (T _{amb.}) | 32,0 °C | 32,0 °C |
| Suction temp. (T _{suction}) | 32,0 °C | 32,0 °C |
| Voltage/Frequency | 220 V 50 Hz | 220 V 50 Hz |

ELECTRICAL COMPONENTS

| | | | | |
|-------------------------|-------------------|----------|--|--|
| Starting capacitor | 72- 88 μF 330 V | | | |
| Relay | Option 1 | Option 2 | | |
| Reference | 2014 135. | QLZ-5.8A | | |
| Pick-Up | 5,80 A | 5.80 A | | |
| Drop-Out | 4,95 A | 4.95 A | | |
| Protector | Option 1 | | | |
| Reference | T0057 | | | |
| Current | 8,50 A | | | |
| Time check | 7,5-14 seg | | | |
| Disc temp. (Open/Close) | 105,00 / 61,00 °C | | | |

ASHRAE

| Tc °C | Te °C | Cooling Capacity kCal/h | Consumption W | Current A | COP W/W | EER kCal/Wh |
|----------|----------|-------------------------------|------------------|--------------|------------|----------------|
| 40 | -35 | 126 | 174 | 1,52 | 0,84 | 0,72 |
| 40 | -30 | 191 | 209 | 1,61 | 1,06 | 0,91 |
| 40 | -25 | 269 | 247 | 1,73 | 1,26 | 1,09 |
| 40 | -23,3 | 298 | 261 | 1,77 | 1,33 | 1,14 |
| 40 | -20 | 359 | 288 | 1,86 | 1,45 | 1,25 |
| 40 | -15 | 462 | 333 | 2,02 | 1,62 | 1,39 |
| 40 | -10 | 578 | 380 | 2,22 | 1,77 | 1,52 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 45 | -35 | 119 | 171 | 1,51 | 0,81 | 0,70 |
| 45 | -30 | 183 | 209 | 1,61 | 1,02 | 0,88 |
| 45 | -25 | 259 | 249 | 1,73 | 1,21 | 1,04 |
| 45 | -23,3 | 288 | 264 | 1,78 | 1,27 | 1,09 |
| 45 | -20 | 349 | 293 | 1,88 | 1,38 | 1,19 |
| 45 | -15 | 451 | 340 | 2,05 | 1,54 | 1,33 |
| 45 | -10 | 565 | 390 | 2,26 | 1,69 | 1,45 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 50 | -35 | 112 | 168 | 1,51 | 0,78 | 0,67 |
| 50 | -30 | 175 | 208 | 1,61 | 0,98 | 0,84 |
| 50 | -25 | 250 | 251 | 1,74 | 1,16 | 0,99 |
| 50 | -23,3 | 279 | 267 | 1,79 | 1,21 | 1,04 |
| 50 | -20 | 338 | 298 | 1,90 | 1,32 | 1,14 |
| 50 | -15 | 439 | 347 | 2,08 | 1,47 | 1,26 |
| 50 | -10 | 553 | 400 | 2,31 | 1,61 | 1,38 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 55 | -35 | 105 | 165 | 1,50 | 0,74 | 0,64 |
| 55 | -30 | 167 | 208 | 1,61 | 0,93 | 0,80 |
| 55 | -25 | 241 | 254 | 1,75 | 1,10 | 0,95 |
| 55 | -23,3 | 269 | 270 | 1,80 | 1,16 | 1,00 |
| 55 | -20 | 328 | 303 | 1,91 | 1,26 | 1,08 |
| 55 | -15 | 428 | 355 | 2,11 | 1,40 | 1,21 |
| 55 | -10 | 540 | 410 | 2,35 | 1,53 | 1,32 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 60 | -35 | 98 | 162 | 1,49 | 0,70 | 0,60 |
| 60 | -30 | 158 | 207 | 1,61 | 0,89 | 0,76 |
| 60 | -25 | 232 | 256 | 1,75 | 1,05 | 0,91 |
| 60 | -23,3 | 259 | 273 | 1,81 | 1,10 | 0,95 |
| 60 | -20 | 317 | 307 | 1,93 | 1,20 | 1,03 |
| 60 | -15 | 416 | 362 | 2,14 | 1,34 | 1,15 |
| 60 | -10 | 527 | 420 | 2,40 | 1,46 | 1,26 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 65 | -35 | 91 | 159 | 1,49 | 0,67 | 0,57 |
| 65 | -30 | 150 | 207 | 1,61 | 0,84 | 0,73 |
| 65 | -25 | 222 | 258 | 1,76 | 1,00 | 0,86 |
| 65 | -23,3 | 250 | 276 | 1,82 | 1,05 | 0,90 |
| 65 | -20 | 307 | 312 | 1,95 | 1,14 | 0,98 |
| 65 | -15 | 404 | 370 | 2,17 | 1,27 | 1,09 |
| 65 | -10 | 515 | 430 | 2,44 | 1,39 | 1,20 |

CECOMAF

| Tc °C | Te °C | Cooling Capacity W | Consumption W | Current A | COP W/W | EER kCal/Wh |
|----------|----------|--------------------------|------------------|--------------|------------|----------------|
| 40 | -35 | 137 | 174 | 1,52 | 0,79 | 0,68 |
| 40 | -30 | 212 | 209 | 1,61 | 1,01 | 0,88 |
| 40 | -25 | 298 | 247 | 1,73 | 1,21 | 1,04 |
| 40 | -23,3 | 330 | 261 | 1,77 | 1,27 | 1,10 |
| 40 | -20 | 397 | 288 | 1,86 | 1,38 | 1,19 |
| 40 | -15 | 507 | 333 | 2,02 | 1,52 | 1,32 |
| 40 | -10 | 629 | 380 | 2,22 | 1,66 | 1,43 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 45 | -35 | 125 | 171 | 1,51 | 0,73 | 0,63 |
| 45 | -30 | 194 | 209 | 1,61 | 0,93 | 0,80 |
| 45 | -25 | 275 | 249 | 1,73 | 1,10 | 0,95 |
| 45 | -23,3 | 305 | 264 | 1,78 | 1,16 | 1,00 |
| 45 | -20 | 368 | 293 | 1,88 | 1,25 | 1,08 |
| 45 | -15 | 472 | 340 | 2,05 | 1,39 | 1,20 |
| 45 | -10 | 589 | 390 | 2,26 | 1,51 | 1,31 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 50 | -35 | 112 | 168 | 1,51 | 0,67 | 0,58 |
| 50 | -30 | 176 | 208 | 1,61 | 0,84 | 0,73 |
| 50 | -25 | 251 | 251 | 1,74 | 1,00 | 0,86 |
| 50 | -23,3 | 280 | 267 | 1,79 | 1,05 | 0,90 |
| 50 | -20 | 339 | 298 | 1,90 | 1,14 | 0,98 |
| 50 | -15 | 438 | 347 | 2,08 | 1,26 | 1,09 |
| 50 | -10 | 549 | 400 | 2,31 | 1,37 | 1,19 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 55 | -35 | 99 | 165 | 1,50 | 0,60 | 0,52 |
| 55 | -30 | 157 | 208 | 1,61 | 0,76 | 0,65 |
| 55 | -25 | 228 | 254 | 1,75 | 0,90 | 0,77 |
| 55 | -23,3 | 254 | 270 | 1,80 | 0,94 | 0,81 |
| 55 | -20 | 310 | 303 | 1,91 | 1,02 | 0,88 |
| 55 | -15 | 403 | 355 | 2,11 | 1,14 | 0,98 |
| 55 | -10 | 509 | 410 | 2,35 | 1,24 | 1,07 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 60 | -35 | 87 | 162 | 1,49 | 0,53 | 0,46 |
| 60 | -30 | 139 | 207 | 1,61 | 0,67 | 0,58 |
| 60 | -25 | 204 | 256 | 1,75 | 0,80 | 0,69 |
| 60 | -23,3 | 229 | 273 | 1,81 | 0,84 | 0,72 |
| 60 | -20 | 280 | 307 | 1,93 | 0,91 | 0,79 |
| 60 | -15 | 369 | 362 | 2,14 | 1,02 | 0,88 |
| 60 | -10 | 469 | 420 | 2,40 | 1,12 | 0,96 |

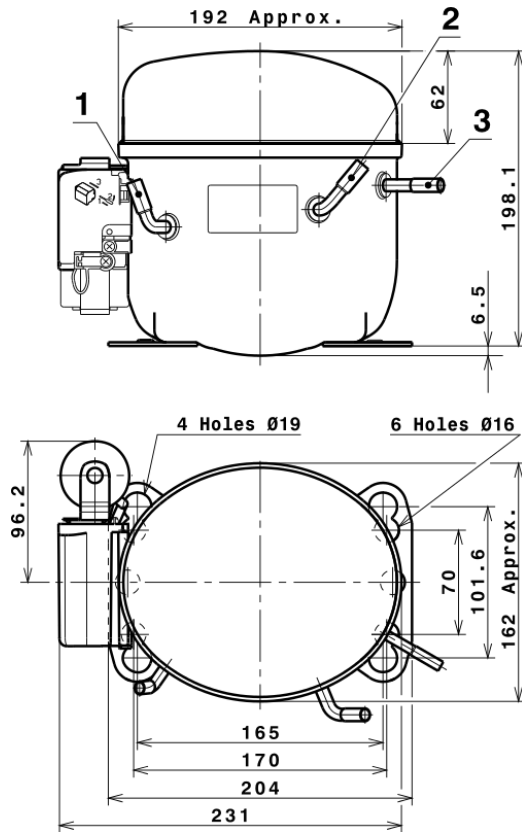
| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 65 | -35 | 74 | 159 | 1,49 | 0,47 | 0,40 |
| 65 | -30 | 121 | 207 | 1,61 | 0,59 | 0,51 |
| 65 | -25 | 180 | 258 | 1,76 | 0,70 | 0,60 |
| 65 | -23,3 | 203 | 276 | 1,82 | 0,74 | 0,64 |
| 65 | -20 | 251 | 312 | 1,95 | 0,80 | 0,70 |
| 65 | -15 | 334 | 370 | 2,17 | 0,90 | 0,78 |
| 65 | -10 | 429 | 430 | 2,44 | 1,00 | 0,86 |

EN12900

| X | Cooling Capacity (W) | Consumption (W) | Current (A) | Mass Flow (kg/h) |
|---|----------------------|-----------------|--------------|---------------------|
| 1 | 1.313,3062546886 | 371,8643004073 | 2,2400062925 | 23,183650977352 |
| 2 | 38,8948176554 | 7,1189994367 | 0,0417383174 | 0,76352824874081 |
| 3 | -10,4748620639 | 3,1120700126 | 0,0134840162 | -0,071493264201953 |
| 4 | 0,2325012066 | 0,0649455057 | 0,0006633742 | 0,0063688099718568 |
| 5 | -0,2264579581 | 0,1064277635 | 0,0004284969 | -0,0011056208537831 |

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

COMPRESSOR DIMENSIONS

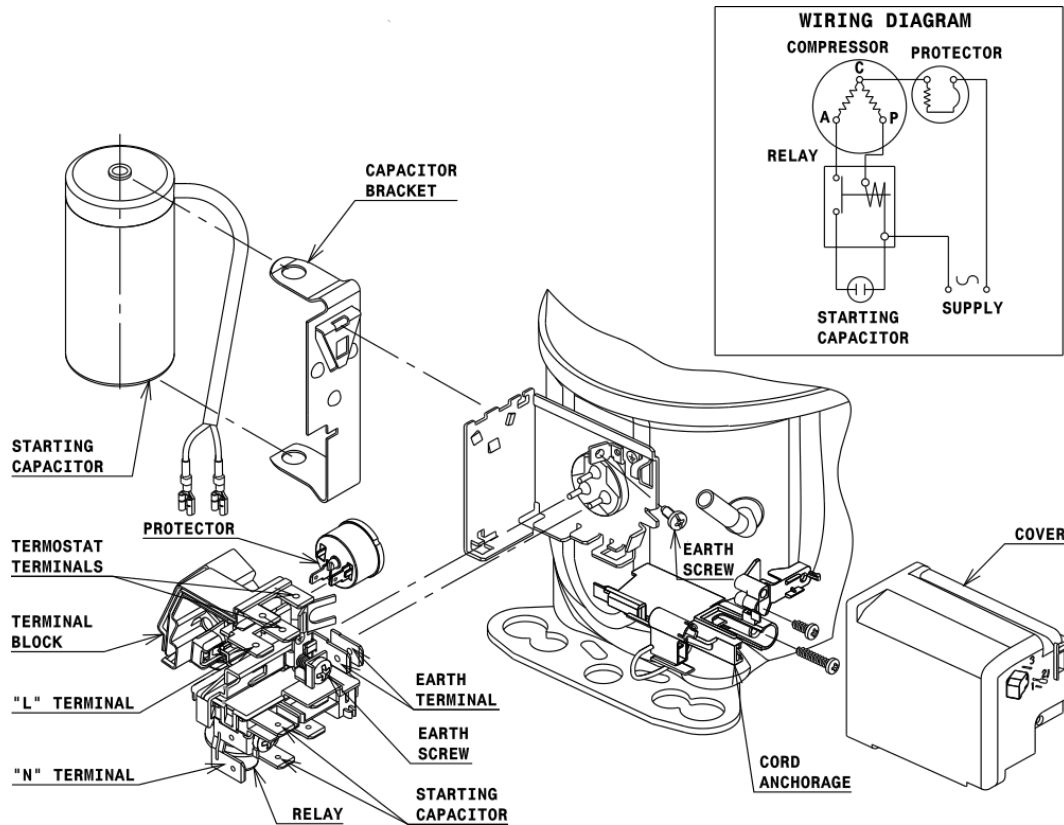


DESIGNATION INTERNAL DIAM.

| DESIGNATION | INTERNAL DIAM. |
|-------------|----------------|
| 1 Suction | 8,1 mm |
| 2 Service | 8,1 mm |
| 3 Discharge | 6,5 mm |

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (L, P ranges)



Technical Data Sheet

FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

STANDARD

Ø16 holes (170x70 net)



AMERICAN FEET

Ø19 holes (165x101.6 net)



SNAP-ON

Ø16 holes (170x70 net)



SOA

SOA R134a LBP

