

Technical Data Sheet

Compressor model **GP14FE**
 Voltage **115V 60Hz ~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 cm³
 Diameter 31,19 mm
 Stroke 18,54 mm
 Net Weight 12,35 Kg
 Oil type ISO VG 32 ESTER
 Oil charge 350 cm³

MOTOR

Nominal Power 3/8 hp
 Voltage/Frequency 115V 60Hz
 Voltage range 98-127 V
 Type CSIR
 Phase number 1 PH
 Locked Rotor Amps (LRA) 44,50 A
 Max. Cont. Current (MCC) 9,00 A
 Main W. resist. at 25°C 0,84 Ω
 Start W. resist. at 25°C 3,96 Ω

NOMINAL PERFORMANCE

| | ASHRAE | CECOMAF |
|------------------|--------------|--------------|
| Cooling Capacity | 316 kCal/h | 267 W |
| COP | 1,11 W/W | 0,84 W/W |
| EER | 0,95 kCal/Wh | 0,73 kCal/Wh |
| Input Power | 332 W | 317 W |
| Current | 6,02 A | 5,96 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 | 115 V 60 Hz | 115 V 60 Hz |

ELECTRICAL COMPONENTS

| | | | | |
|-------------------------|-------------------|--|--|--|
| Starting capacitor | 250 µF 160 V | | | |
| Relay | Option 1 | | | |
| Reference | 2014 184. | | | |
| Pick-Up | 18,70 A | | | |
| Drop-Out | 15,60 A | | | |
| Protector | Option 1 | | | |
| Reference | T0534 | | | |
| Current | 20,00 A | | | |
| Time check | 7,5-14 seg | | | |
| Disc temp. (Open/Close) | 105,00 / 52,00 °C | | | |

ASHRAE

| Tc °C | Te °C | Cooling Capacity kCal/h | Consumption W | Current A | COP W/W | EER kCal/Wh |
|----------|----------|-------------------------------|------------------|--------------|------------|----------------|
| 40 | -35 | 147 | 245 | 5,71 | 0,70 | 0,60 |
| 40 | -30 | 223 | 279 | 5,82 | 0,93 | 0,80 |
| 40 | -25 | 314 | 314 | 5,95 | 1,16 | 1,00 |
| 40 | -23,3 | 349 | 327 | 6,00 | 1,24 | 1,07 |
| 40 | -20 | 422 | 352 | 6,10 | 1,40 | 1,20 |
| 40 | -15 | 547 | 391 | 6,26 | 1,63 | 1,40 |
| 40 | -10 | 687 | 432 | 6,44 | 1,85 | 1,59 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 45 | -35 | 140 | 241 | 5,70 | 0,68 | 0,58 |
| 45 | -30 | 214 | 277 | 5,82 | 0,90 | 0,77 |
| 45 | -25 | 304 | 315 | 5,96 | 1,12 | 0,96 |
| 45 | -23,3 | 338 | 328 | 6,01 | 1,20 | 1,03 |
| 45 | -20 | 410 | 355 | 6,11 | 1,34 | 1,15 |
| 45 | -15 | 533 | 397 | 6,28 | 1,56 | 1,34 |
| 45 | -10 | 671 | 441 | 6,48 | 1,77 | 1,52 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 50 | -35 | 133 | 236 | 5,68 | 0,65 | 0,56 |
| 50 | -30 | 205 | 275 | 5,81 | 0,87 | 0,75 |
| 50 | -25 | 293 | 316 | 5,96 | 1,08 | 0,93 |
| 50 | -23,3 | 327 | 330 | 6,01 | 1,15 | 0,99 |
| 50 | -20 | 398 | 359 | 6,12 | 1,29 | 1,11 |
| 50 | -15 | 519 | 403 | 6,31 | 1,50 | 1,29 |
| 50 | -10 | 656 | 449 | 6,52 | 1,70 | 1,46 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 55 | -35 | 126 | 232 | 5,67 | 0,63 | 0,54 |
| 55 | -30 | 196 | 273 | 5,81 | 0,83 | 0,72 |
| 55 | -25 | 283 | 317 | 5,96 | 1,04 | 0,89 |
| 55 | -23,3 | 316 | 332 | 6,02 | 1,11 | 0,95 |
| 55 | -20 | 386 | 362 | 6,14 | 1,24 | 1,07 |
| 55 | -15 | 505 | 409 | 6,34 | 1,43 | 1,23 |
| 55 | -10 | 640 | 458 | 6,56 | 1,63 | 1,40 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 60 | -35 | 119 | 228 | 5,66 | 0,61 | 0,52 |
| 60 | -30 | 188 | 272 | 5,80 | 0,80 | 0,69 |
| 60 | -25 | 272 | 318 | 5,97 | 1,00 | 0,86 |
| 60 | -23,3 | 305 | 334 | 6,03 | 1,06 | 0,91 |
| 60 | -20 | 373 | 366 | 6,15 | 1,19 | 1,02 |
| 60 | -15 | 491 | 415 | 6,36 | 1,37 | 1,18 |
| 60 | -10 | 624 | 467 | 6,60 | 1,56 | 1,34 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 65 | -35 | 112 | 223 | 5,64 | 0,58 | 0,50 |
| 65 | -30 | 179 | 270 | 5,79 | 0,77 | 0,66 |
| 65 | -25 | 262 | 319 | 5,97 | 0,96 | 0,82 |
| 65 | -23,3 | 294 | 336 | 6,03 | 1,02 | 0,88 |
| 65 | -20 | 361 | 369 | 6,17 | 1,14 | 0,98 |
| 65 | -15 | 477 | 421 | 6,39 | 1,32 | 1,13 |
| 65 | -10 | 609 | 475 | 6,64 | 1,49 | 1,28 |

CECOMAF

| Tc °C | Te °C | Cooling Capacity W | Consumption W | Current A | COP W/W | EER kCal/Wh |
|----------|----------|--------------------------|------------------|--------------|------------|----------------|
| 40 | -35 | 160 | 245 | 5,71 | 0,65 | 0,56 |
| 40 | -30 | 247 | 279 | 5,82 | 0,89 | 0,77 |
| 40 | -25 | 350 | 314 | 5,95 | 1,11 | 0,96 |
| 40 | -23,3 | 388 | 327 | 6,00 | 1,19 | 1,03 |
| 40 | -20 | 467 | 352 | 6,10 | 1,33 | 1,15 |
| 40 | -15 | 600 | 391 | 6,26 | 1,53 | 1,33 |
| 40 | -10 | 748 | 432 | 6,44 | 1,73 | 1,50 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 45 | -35 | 146 | 241 | 5,70 | 0,61 | 0,53 |
| 45 | -30 | 227 | 277 | 5,82 | 0,82 | 0,71 |
| 45 | -25 | 322 | 315 | 5,96 | 1,02 | 0,88 |
| 45 | -23,3 | 358 | 328 | 6,01 | 1,09 | 0,94 |
| 45 | -20 | 433 | 355 | 6,11 | 1,22 | 1,05 |
| 45 | -15 | 559 | 397 | 6,28 | 1,41 | 1,22 |
| 45 | -10 | 700 | 441 | 6,48 | 1,59 | 1,37 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 50 | -35 | 133 | 236 | 5,68 | 0,56 | 0,49 |
| 50 | -30 | 206 | 275 | 5,81 | 0,75 | 0,65 |
| 50 | -25 | 295 | 316 | 5,96 | 0,93 | 0,81 |
| 50 | -23,3 | 328 | 330 | 6,01 | 0,99 | 0,86 |
| 50 | -20 | 398 | 359 | 6,12 | 1,11 | 0,96 |
| 50 | -15 | 517 | 403 | 6,31 | 1,28 | 1,11 |
| 50 | -10 | 652 | 449 | 6,52 | 1,45 | 1,25 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 55 | -35 | 119 | 232 | 5,67 | 0,51 | 0,44 |
| 55 | -30 | 186 | 273 | 5,81 | 0,68 | 0,59 |
| 55 | -25 | 267 | 317 | 5,96 | 0,84 | 0,73 |
| 55 | -23,3 | 298 | 332 | 6,02 | 0,90 | 0,78 |
| 55 | -20 | 364 | 362 | 6,14 | 1,01 | 0,87 |
| 55 | -15 | 476 | 409 | 6,34 | 1,16 | 1,01 |
| 55 | -10 | 603 | 458 | 6,56 | 1,32 | 1,14 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 60 | -35 | 105 | 228 | 5,66 | 0,46 | 0,40 |
| 60 | -30 | 165 | 272 | 5,80 | 0,61 | 0,52 |
| 60 | -25 | 240 | 318 | 5,97 | 0,75 | 0,65 |
| 60 | -23,3 | 269 | 334 | 6,03 | 0,81 | 0,70 |
| 60 | -20 | 330 | 366 | 6,15 | 0,90 | 0,78 |
| 60 | -15 | 435 | 415 | 6,36 | 1,05 | 0,91 |
| 60 | -10 | 555 | 467 | 6,60 | 1,19 | 1,03 |

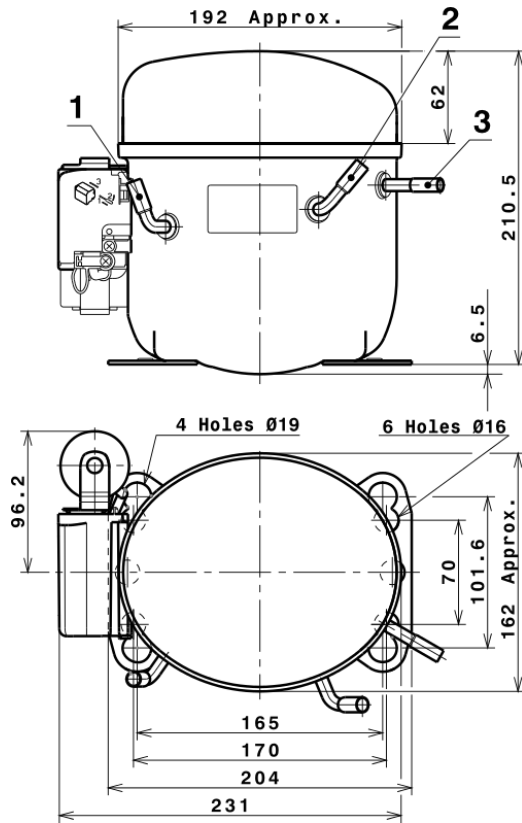
| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 65 | -35 | 92 | 223 | 5,64 | 0,41 | 0,36 |
| 65 | -30 | 144 | 270 | 5,79 | 0,54 | 0,46 |
| 65 | -25 | 212 | 319 | 5,97 | 0,67 | 0,58 |
| 65 | -23,3 | 239 | 336 | 6,03 | 0,71 | 0,62 |
| 65 | -20 | 295 | 369 | 6,17 | 0,80 | 0,69 |
| 65 | -15 | 394 | 421 | 6,39 | 0,93 | 0,81 |
| 65 | -10 | 507 | 475 | 6,64 | 1,07 | 0,92 |

EN12900

| X | Cooling Capacity (W) | Consumption (W) | Current (A) | Mass Flow (kg/h) |
|---|----------------------|-----------------|--------------|---------------------|
| 1 | 1.580,0298913311 | 419,3897584316 | 6,4352182176 | 28,028602343481 |
| 2 | 47,8936632293 | 5,1998355675 | 0,0327972242 | 0,94845184330386 |
| 3 | -12,7156804129 | 2,8387757397 | 0,0128409936 | -0,091524710896286 |
| 4 | 0,2970847379 | 0,0394161501 | 0,0004538176 | 0,0080987678533195 |
| 5 | -0,2844783717 | 0,1064022346 | 0,0004486671 | -0,0016778466339645 |

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

COMPRESSOR DIMENSIONS



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

