

Technical Data Sheet

Compressor model **GU80TB**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R134a**

APPLICATION

Application High Back Pressure
 Refrigerant R134a
 Evaporating Temp. -15,0 °C to 10,0 °C
 Expansion Capillar/Valve
 Comp. Cooling Fan cooled
 Max. ambient temp. 43,0 °C
 Compatible refriger. R1234yf

COMPRESSOR

Displacement 8,10 cm³
 Diameter 24,30 mm
 Stroke 17,50 mm
 Net Weight 9,23 Kg
 Oil type POE
 Oil charge 220 cm³

MOTOR

Nominal Power 1/4 hp
 Voltage/Frequency 220-240V 50Hz
 Voltage range 187-264 V
 Type CSIR
 Phase number 1 PH
 Locked Rotor Amps (LRA) 13,00 A
 Max. Cont. Current (MCC) 3,10 A
 Main W. resist. at 25°C 9,69 Ω
 Start W. resist. at 25°C 35,59 Ω

NOMINAL PERFORMANCE

| | ASHRAE | CECOMAF |
|------------------|--------------|--------------|
| Cooling Capacity | 714 kCal/h | 686 W |
| COP | 2,31 W/W | 1,98 W/W |
| EER | 1,98 kCal/Wh | 1,71 kCal/Wh |
| Input Power | 360 W | 346 W |
| Current | 2,20 A | 2,14 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

| | | | | |
|-------------------------|-------------------|--|--|--|
| Starting capacitor | 60-61 µF 330 V | | | |
| Relay | Option 1 | | | |
| Reference | QLZ-5.8A | | | |
| Pick-Up | 5.80 A | | | |
| Drop-Out | 4.95 A | | | |
| Protector | Option 1 | | | |
| Reference | B85-105 | | | |
| 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 | -15 | 326 | 214 | 1,75 | 1,77 | 1,52 |
| 40 | -10 | 397 | 228 | 1,78 | 2,03 | 1,75 |
| 40 | -5 | 492 | 246 | 1,81 | 2,33 | 2,00 |
| 40 | 0 | 609 | 268 | 1,87 | 2,65 | 2,28 |
| 40 | 5 | 750 | 294 | 1,95 | 2,97 | 2,55 |
| 40 | 7,2 | 819 | 307 | 1,99 | 3,10 | 2,67 |
| 40 | 10 | 913 | 325 | 2,05 | 3,27 | 2,81 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 45 | -15 | 307 | 221 | 1,76 | 1,62 | 1,39 |
| 45 | -10 | 375 | 237 | 1,80 | 1,84 | 1,58 |
| 45 | -5 | 466 | 257 | 1,84 | 2,11 | 1,81 |
| 45 | 0 | 580 | 282 | 1,91 | 2,39 | 2,06 |
| 45 | 5 | 716 | 311 | 2,00 | 2,68 | 2,31 |
| 45 | 7,2 | 784 | 325 | 2,05 | 2,81 | 2,41 |
| 45 | 10 | 876 | 344 | 2,13 | 2,97 | 2,55 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 50 | -15 | 288 | 227 | 1,78 | 1,47 | 1,27 |
| 50 | -10 | 352 | 246 | 1,82 | 1,67 | 1,43 |
| 50 | -5 | 440 | 269 | 1,87 | 1,90 | 1,64 |
| 50 | 0 | 550 | 296 | 1,95 | 2,16 | 1,86 |
| 50 | 5 | 683 | 327 | 2,06 | 2,43 | 2,09 |
| 50 | 7,2 | 749 | 342 | 2,12 | 2,54 | 2,19 |
| 50 | 10 | 839 | 363 | 2,21 | 2,69 | 2,31 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 55 | -15 | 269 | 234 | 1,79 | 1,34 | 1,15 |
| 55 | -10 | 330 | 255 | 1,84 | 1,50 | 1,29 |
| 55 | -5 | 413 | 280 | 1,90 | 1,71 | 1,47 |
| 55 | 0 | 520 | 310 | 2,00 | 1,95 | 1,68 |
| 55 | 5 | 650 | 344 | 2,13 | 2,20 | 1,89 |
| 55 | 7,2 | 714 | 360 | 2,20 | 2,31 | 1,98 |
| 55 | 10 | 802 | 382 | 2,30 | 2,44 | 2,10 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 60 | -15 | 250 | 241 | 1,80 | 1,21 | 1,04 |
| 60 | -10 | 307 | 264 | 1,86 | 1,35 | 1,16 |
| 60 | -5 | 387 | 292 | 1,94 | 1,54 | 1,33 |
| 60 | 0 | 490 | 324 | 2,05 | 1,76 | 1,51 |
| 60 | 5 | 616 | 360 | 2,20 | 1,99 | 1,71 |
| 60 | 7,2 | 679 | 378 | 2,28 | 2,09 | 1,80 |
| 60 | 10 | 765 | 401 | 2,40 | 2,22 | 1,91 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 65 | -15 | 231 | 247 | 1,82 | 1,09 | 0,93 |
| 65 | -10 | 284 | 273 | 1,88 | 1,21 | 1,04 |
| 65 | -5 | 361 | 304 | 1,98 | 1,38 | 1,19 |
| 65 | 0 | 460 | 338 | 2,11 | 1,58 | 1,36 |
| 65 | 5 | 583 | 377 | 2,28 | 1,80 | 1,55 |
| 65 | 7,2 | 644 | 395 | 2,37 | 1,89 | 1,63 |
| 65 | 10 | 728 | 420 | 2,50 | 2,02 | 1,73 |

CECOMAF

| Tc °C | Te °C | Cooling Capacity W | Consumption W | Current A | COP W/W | EER kCal/Wh |
|----------|----------|--------------------------|------------------|--------------|------------|----------------|
| 40 | -15 | 351 | 215 | 1,76 | 1,63 | 1,41 |
| 40 | -10 | 429 | 229 | 1,78 | 1,87 | 1,62 |
| 40 | -5 | 531 | 247 | 1,82 | 2,15 | 1,86 |
| 40 | 0 | 657 | 269 | 1,87 | 2,44 | 2,11 |
| 40 | 5 | 808 | 296 | 1,95 | 2,73 | 2,36 |
| 40 | 7,2 | 881 | 309 | 2,00 | 2,85 | 2,46 |
| 40 | 10 | 982 | 327 | 2,06 | 3,01 | 2,60 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 45 | -15 | 329 | 222 | 1,77 | 1,48 | 1,28 |
| 45 | -10 | 402 | 238 | 1,80 | 1,69 | 1,46 |
| 45 | -5 | 500 | 259 | 1,85 | 1,93 | 1,67 |
| 45 | 0 | 621 | 283 | 1,91 | 2,19 | 1,89 |
| 45 | 5 | 767 | 313 | 2,01 | 2,45 | 2,12 |
| 45 | 7,2 | 839 | 327 | 2,06 | 2,57 | 2,22 |
| 45 | 10 | 937 | 346 | 2,14 | 2,71 | 2,34 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 50 | -15 | 307 | 229 | 1,78 | 1,34 | 1,16 |
| 50 | -10 | 375 | 247 | 1,82 | 1,52 | 1,31 |
| 50 | -5 | 468 | 270 | 1,88 | 1,73 | 1,50 |
| 50 | 0 | 585 | 298 | 1,96 | 1,97 | 1,70 |
| 50 | 5 | 727 | 329 | 2,07 | 2,21 | 1,91 |
| 50 | 7,2 | 797 | 345 | 2,13 | 2,31 | 2,00 |
| 50 | 10 | 892 | 365 | 2,22 | 2,44 | 2,11 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 55 | -15 | 285 | 235 | 1,79 | 1,21 | 1,04 |
| 55 | -10 | 349 | 257 | 1,84 | 1,36 | 1,17 |
| 55 | -5 | 437 | 282 | 1,91 | 1,55 | 1,34 |
| 55 | 0 | 550 | 312 | 2,01 | 1,76 | 1,52 |
| 55 | 5 | 686 | 346 | 2,14 | 1,98 | 1,71 |
| 55 | 7,2 | 754 | 362 | 2,21 | 2,08 | 1,80 |
| 55 | 10 | 847 | 384 | 2,32 | 2,20 | 1,90 |

| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 60 | -15 | 262 | 242 | 1,81 | 1,08 | 0,94 |
| 60 | -10 | 322 | 266 | 1,86 | 1,21 | 1,05 |
| 60 | -5 | 406 | 294 | 1,95 | 1,38 | 1,19 |
| 60 | 0 | 514 | 326 | 2,06 | 1,58 | 1,36 |
| 60 | 5 | 646 | 363 | 2,21 | 1,78 | 1,54 |
| 60 | 7,2 | 712 | 380 | 2,29 | 1,87 | 1,62 |
| 60 | 10 | 802 | 404 | 2,41 | 1,99 | 1,72 |

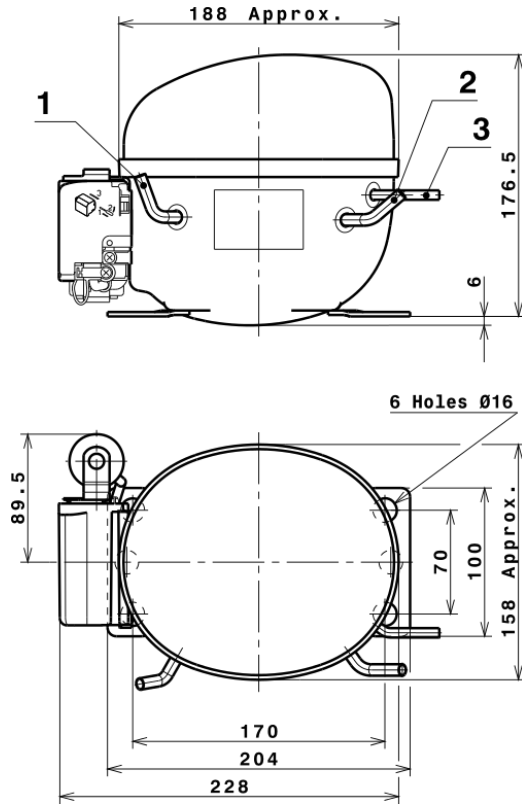
| | | | | | | |
|----|-----|-----|-----|------|------|------|
| 65 | -15 | 240 | 249 | 1,82 | 0,97 | 0,83 |
| 65 | -10 | 295 | 275 | 1,89 | 1,07 | 0,93 |
| 65 | -5 | 374 | 305 | 1,98 | 1,23 | 1,06 |
| 65 | 0 | 478 | 340 | 2,12 | 1,40 | 1,21 |
| 65 | 5 | 605 | 379 | 2,29 | 1,60 | 1,38 |
| 65 | 7,2 | 669 | 398 | 2,38 | 1,68 | 1,45 |
| 65 | 10 | 757 | 423 | 2,52 | 1,79 | 1,55 |

EN12900

| X | Cooling Capacity (W) | Consumption (W) | Current (A) | Mass Flow (kg/h) |
|---|----------------------|-----------------|---------------|---------------------|
| 1 | 948,6408284527 | 159,6424702828 | 1,4180212247 | 15,139990410484 |
| 2 | 35,2317332624 | 0,9817185154 | -0,0055871488 | 0,61795753425367 |
| 3 | -7,5024792783 | 2,9151231604 | 0,0112355793 | -0,019040270459349 |
| 4 | 0,4757599016 | 0,0906721546 | 0,0006901736 | 0,013760314053808 |
| 5 | -0,1970732496 | 0,1028793436 | 0,0005708599 | 0,00093507081752188 |

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

COMPRESSOR DIMENSIONS

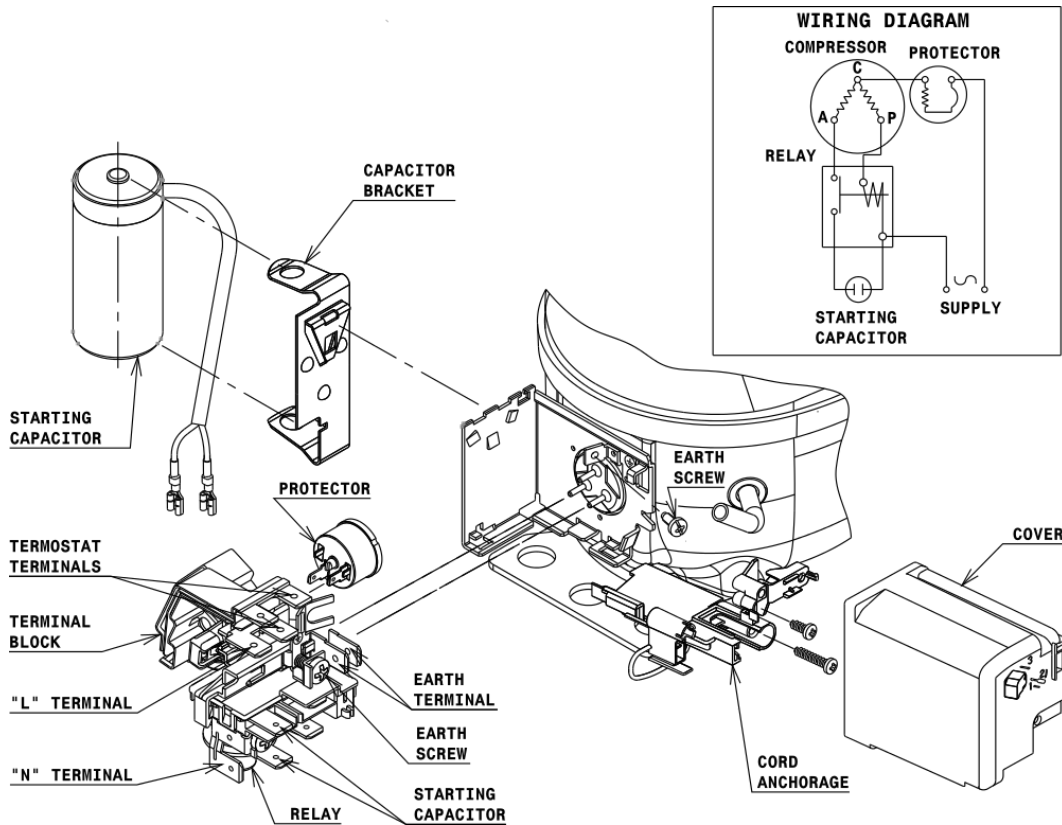


DESIGNATION INTERNAL DIAM.

| DESIGNATION | INTERNAL DIAM. |
|-------------|----------------|
| 1 Service | 6,2 mm |
| 2 Suction | 6,2 mm |
| 3 Discharge | 4,9 mm |

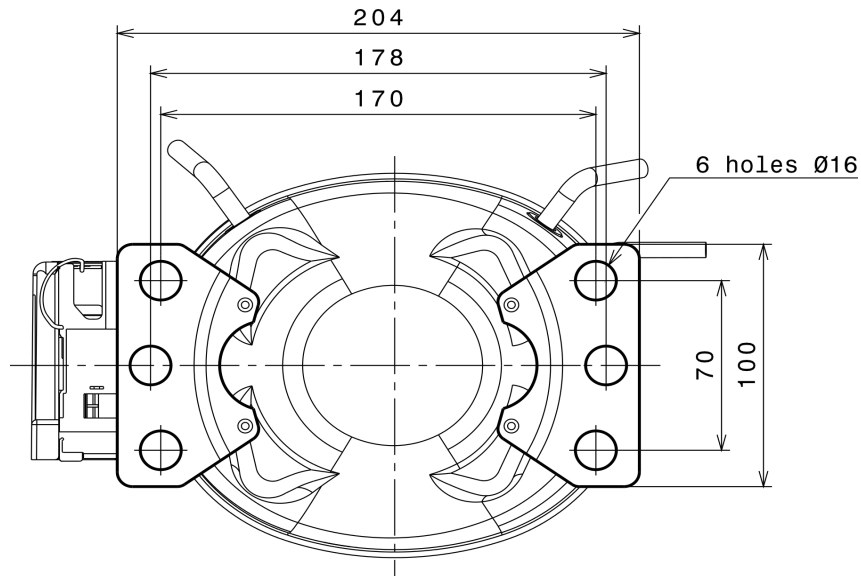
WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

CSIR CONNECTION (U range)



Technical Data Sheet

FIXINGS



SILENT BLOCKS (MOUNTING ACCESSORIES)

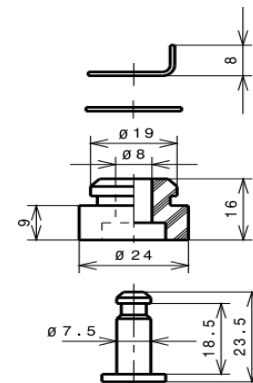
STANDARD

$\varnothing 16$ holes (170x70 net)



SNAP-ON

$\varnothing 16$ holes (170x70 net)



SOA

SOA R134a HBP

