

# Technical Data Sheet

Compressor model **GU45TG**  
Voltage **200-230/220-240V 50/60Hz ~1**  
Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

|                      |                           |              |                      |                          |               |
|----------------------|---------------------------|--------------|----------------------|--------------------------|---------------|
| Application          | High-Medium Back Pressure | Displacement | 4,50 cm <sup>3</sup> | Nominal Power            | 1/6 hp        |
| Refrigerant          | R134a                     | Diameter     | 22,00 mm             | Voltage/Frequency        | 200-230V 50Hz |
| Evaporating Temp.    | -25,0 °C to 10,0 °C       | Stroke       | 11,88 mm             | Voltage range            | 170-253 V     |
| Expansion            | Capillar/Valve            | Net Weight   | 8,60 Kg              | Type                     | CSIR          |
| Comp. Cooling        | Fan cooled                | Oil type     | ISO VG 22 ESTER      | Phase number             | 1 PH          |
| Max. ambient temp.   | 43,0 °C                   | Oil charge   | 220 cm <sup>3</sup>  | Locked Rotor Amps (LRA)  | 8,90 A        |
| Compatible refriger. | R1234yf                   |              |                      | Main W. resist. at 25°C  | 17,00 Ω       |
|                      |                           |              |                      | Start W. resist. at 25°C | 40,30 Ω       |

## NOMINAL PERFORMANCE

|                  | ASHRAE       | CECOMAF      |
|------------------|--------------|--------------|
| Cooling Capacity | 404 kCal/h   | 393 W        |
| COP              | 2,40 W/W     | 2,07 W/W     |
| EER              | 2,06 kCal/Wh | 1,79 kCal/Wh |
| Input Power      | 196 W        | 190 W        |
| Current          | 1,29 A       | 1,26 A       |

## APPROVALS



## TEST CYCLE CONDITIONS

|                                       | ASHRAE<br>HMBP (D) | CECOMAF<br>HMBP (C) |
|---------------------------------------|--------------------|---------------------|
| Evaporating temp. (T <sub>e</sub> )   | 7,2 °C             | 5,0 °C              |
| Condensing temp. (T <sub>c</sub> )    | 55,0 °C            | 55,0 °C             |
| Liquid temp. (T <sub>liq.</sub> )     | 46,0 °C            | 55,0 °C             |
| Ambient temp. (T <sub>amb.</sub> )    | 35,0 °C            | 32,0 °C             |
| Suction temp. (T <sub>suction</sub> ) | 35,0 °C            | 32,0 °C             |
| Voltage/Frequency                     | 200 V 50 Hz        | 200 V 50 Hz         |

## ELECTRICAL COMPONENTS

|                         |                   |  |  |  |
|-------------------------|-------------------|--|--|--|
| Starting capacitor      | 50 µF 330 V       |  |  |  |
| Relay                   | Option 1          |  |  |  |
| Reference               | QLZ-4.0A          |  |  |  |
| Pick-Up                 | 4 V               |  |  |  |
| Drop-Out                | 3.4 V             |  |  |  |
| Protector               | Option 1          |  |  |  |
| Reference               | B85-130           |  |  |  |
| Current                 | 9,00 A            |  |  |  |
| Time check              | 7,5-16 seg        |  |  |  |
| Disc temp. (Open/Close) | 130,00 / 62,00 °C |  |  |  |

## ASHRAE

| Tc<br>°C | Te<br>°C | Cooling<br>Capacity<br>kCal/h | Consumption<br>W | Current<br>A | COP<br>W/W | EER<br>kCal/Wh |
|----------|----------|-------------------------------|------------------|--------------|------------|----------------|
| 40       | -25      | 114                           | 92               | 0,88         | 1,44       | 1,24           |
| 40       | -20      | 152                           | 103              | 0,92         | 1,72       | 1,48           |
| 40       | -15      | 197                           | 114              | 0,95         | 2,02       | 1,74           |
| 40       | -10      | 250                           | 124              | 0,99         | 2,34       | 2,01           |
| 40       | -5       | 311                           | 135              | 1,03         | 2,67       | 2,30           |
| 40       | 0        | 379                           | 146              | 1,07         | 3,01       | 2,59           |
| 40       | 5        | 454                           | 157              | 1,12         | 3,36       | 2,89           |
| 40       | 7,2      | 490                           | 162              | 1,14         | 3,52       | 3,02           |
| 40       | 10       | 537                           | 168              | 1,16         | 3,72       | 3,20           |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 45 | -25 | 105 | 94  | 0,89 | 1,30 | 1,12 |
| 45 | -20 | 140 | 106 | 0,93 | 1,54 | 1,32 |
| 45 | -15 | 182 | 118 | 0,97 | 1,79 | 1,54 |
| 45 | -10 | 232 | 131 | 1,01 | 2,07 | 1,78 |
| 45 | -5  | 290 | 143 | 1,06 | 2,36 | 2,03 |
| 45 | 0   | 355 | 155 | 1,11 | 2,65 | 2,28 |
| 45 | 5   | 427 | 168 | 1,16 | 2,96 | 2,54 |
| 45 | 7,2 | 461 | 173 | 1,19 | 3,10 | 2,66 |
| 45 | 10  | 507 | 180 | 1,22 | 3,27 | 2,81 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 50 | -25 | 96  | 95  | 0,89 | 1,17 | 1,01 |
| 50 | -20 | 128 | 109 | 0,94 | 1,36 | 1,17 |
| 50 | -15 | 167 | 123 | 0,99 | 1,58 | 1,36 |
| 50 | -10 | 214 | 137 | 1,04 | 1,82 | 1,57 |
| 50 | -5  | 269 | 151 | 1,09 | 2,07 | 1,78 |
| 50 | 0   | 330 | 165 | 1,15 | 2,33 | 2,01 |
| 50 | 5   | 400 | 179 | 1,21 | 2,60 | 2,24 |
| 50 | 7,2 | 433 | 185 | 1,24 | 2,72 | 2,34 |
| 50 | 10  | 477 | 192 | 1,27 | 2,88 | 2,48 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 55 | -25 | 87  | 97  | 0,90 | 1,04 | 0,90 |
| 55 | -20 | 116 | 112 | 0,95 | 1,20 | 1,03 |
| 55 | -15 | 152 | 128 | 1,00 | 1,39 | 1,19 |
| 55 | -10 | 196 | 143 | 1,06 | 1,59 | 1,37 |
| 55 | -5  | 247 | 158 | 1,12 | 1,82 | 1,56 |
| 55 | 0   | 306 | 174 | 1,19 | 2,05 | 1,76 |
| 55 | 5   | 372 | 189 | 1,26 | 2,29 | 1,97 |
| 55 | 7,2 | 404 | 196 | 1,29 | 2,40 | 2,06 |
| 55 | 10  | 446 | 205 | 1,33 | 2,54 | 2,18 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 60 | -25 | 78  | 99  | 0,91 | 0,92 | 0,79 |
| 60 | -20 | 104 | 115 | 0,96 | 1,05 | 0,90 |
| 60 | -15 | 137 | 132 | 1,02 | 1,20 | 1,04 |
| 60 | -10 | 178 | 149 | 1,08 | 1,39 | 1,19 |
| 60 | -5  | 226 | 166 | 1,15 | 1,58 | 1,36 |
| 60 | 0   | 282 | 183 | 1,23 | 1,79 | 1,54 |
| 60 | 5   | 345 | 200 | 1,31 | 2,01 | 1,73 |
| 60 | 7,2 | 375 | 207 | 1,35 | 2,11 | 1,81 |
| 60 | 10  | 416 | 217 | 1,39 | 2,23 | 1,92 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 65 | -25 | 69  | 100 | 0,91 | 0,80 | 0,69 |
| 65 | -20 | 92  | 119 | 0,97 | 0,90 | 0,77 |
| 65 | -15 | 122 | 137 | 1,04 | 1,04 | 0,89 |
| 65 | -10 | 160 | 155 | 1,11 | 1,20 | 1,03 |
| 65 | -5  | 205 | 174 | 1,19 | 1,37 | 1,18 |
| 65 | 0   | 258 | 192 | 1,27 | 1,56 | 1,34 |
| 65 | 5   | 318 | 211 | 1,36 | 1,76 | 1,51 |
| 65 | 7,2 | 347 | 219 | 1,40 | 1,84 | 1,59 |
| 65 | 10  | 386 | 229 | 1,46 | 1,96 | 1,68 |

## CECOMAF

| Tc<br>°C | Te<br>°C | Cooling<br>Capacity<br>W | Consumption<br>W | Current<br>A | COP<br>W/W | EER<br>kCal/Wh |
|----------|----------|--------------------------|------------------|--------------|------------|----------------|
| 40       | -25      | 123                      | 92               | 0,89         | 1,33       | 1,15           |
| 40       | -20      | 164                      | 103              | 0,92         | 1,59       | 1,37           |
| 40       | -15      | 213                      | 114              | 0,96         | 1,87       | 1,61           |
| 40       | -10      | 271                      | 125              | 0,99         | 2,16       | 1,87           |
| 40       | -5       | 336                      | 136              | 1,03         | 2,46       | 2,13           |
| 40       | 0        | 408                      | 147              | 1,08         | 2,78       | 2,40           |
| 40       | 5        | 489                      | 158              | 1,12         | 3,09       | 2,67           |
| 40       | 7,2      | 527                      | 163              | 1,14         | 3,23       | 2,79           |
| 40       | 10       | 578                      | 169              | 1,17         | 3,41       | 2,95           |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 45 | -25 | 113 | 94  | 0,89 | 1,20 | 1,03 |
| 45 | -20 | 150 | 107 | 0,93 | 1,41 | 1,22 |
| 45 | -15 | 196 | 119 | 0,97 | 1,65 | 1,42 |
| 45 | -10 | 249 | 131 | 1,02 | 1,90 | 1,64 |
| 45 | -5  | 311 | 144 | 1,06 | 2,16 | 1,87 |
| 45 | 0   | 380 | 156 | 1,11 | 2,43 | 2,10 |
| 45 | 5   | 457 | 169 | 1,17 | 2,71 | 2,34 |
| 45 | 7,2 | 494 | 174 | 1,19 | 2,83 | 2,45 |
| 45 | 10  | 542 | 181 | 1,22 | 2,99 | 2,58 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 50 | -25 | 102 | 96  | 0,90 | 1,07 | 0,92 |
| 50 | -20 | 136 | 110 | 0,94 | 1,24 | 1,07 |
| 50 | -15 | 178 | 124 | 0,99 | 1,44 | 1,25 |
| 50 | -10 | 228 | 138 | 1,04 | 1,66 | 1,43 |
| 50 | -5  | 286 | 152 | 1,09 | 1,89 | 1,63 |
| 50 | 0   | 352 | 166 | 1,15 | 2,12 | 1,84 |
| 50 | 5   | 425 | 180 | 1,21 | 2,37 | 2,05 |
| 50 | 7,2 | 460 | 186 | 1,24 | 2,48 | 2,14 |
| 50 | 10  | 507 | 194 | 1,28 | 2,62 | 2,26 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 55 | -25 | 92  | 98  | 0,90 | 0,94 | 0,82 |
| 55 | -20 | 123 | 113 | 0,95 | 1,09 | 0,94 |
| 55 | -15 | 161 | 128 | 1,01 | 1,25 | 1,08 |
| 55 | -10 | 207 | 144 | 1,06 | 1,44 | 1,25 |
| 55 | -5  | 261 | 159 | 1,13 | 1,64 | 1,42 |
| 55 | 0   | 323 | 175 | 1,19 | 1,85 | 1,60 |
| 55 | 5   | 393 | 190 | 1,26 | 2,07 | 1,79 |
| 55 | 7,2 | 427 | 197 | 1,30 | 2,16 | 1,87 |
| 55 | 10  | 471 | 206 | 1,34 | 2,29 | 1,98 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 60 | -25 | 82  | 99  | 0,91 | 0,82 | 0,71 |
| 60 | -20 | 109 | 116 | 0,96 | 0,94 | 0,81 |
| 60 | -15 | 144 | 133 | 1,02 | 1,08 | 0,93 |
| 60 | -10 | 186 | 150 | 1,09 | 1,24 | 1,07 |
| 60 | -5  | 237 | 167 | 1,16 | 1,42 | 1,22 |
| 60 | 0   | 295 | 184 | 1,23 | 1,60 | 1,39 |
| 60 | 5   | 361 | 201 | 1,31 | 1,80 | 1,55 |
| 60 | 7,2 | 393 | 209 | 1,35 | 1,88 | 1,63 |
| 60 | 10  | 436 | 218 | 1,40 | 2,00 | 1,72 |

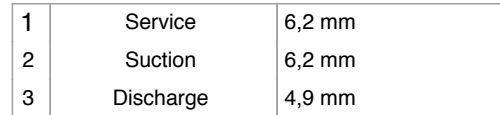
|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 65 | -25 | 72  | 101 | 0,91 | 0,71 | 0,61 |
| 65 | -20 | 95  | 119 | 0,97 | 0,80 | 0,69 |
| 65 | -15 | 126 | 138 | 1,04 | 0,92 | 0,79 |
| 65 | -10 | 165 | 156 | 1,11 | 1,06 | 0,91 |
| 65 | -5  | 212 | 175 | 1,19 | 1,21 | 1,05 |
| 65 | 0   | 267 | 193 | 1,28 | 1,38 | 1,19 |
| 65 | 5   | 330 | 212 | 1,37 | 1,56 | 1,34 |
| 65 | 7,2 | 360 | 220 | 1,41 | 1,63 | 1,41 |
| 65 | 10  | 400 | 231 | 1,47 | 1,74 | 1,50 |

## EN12900

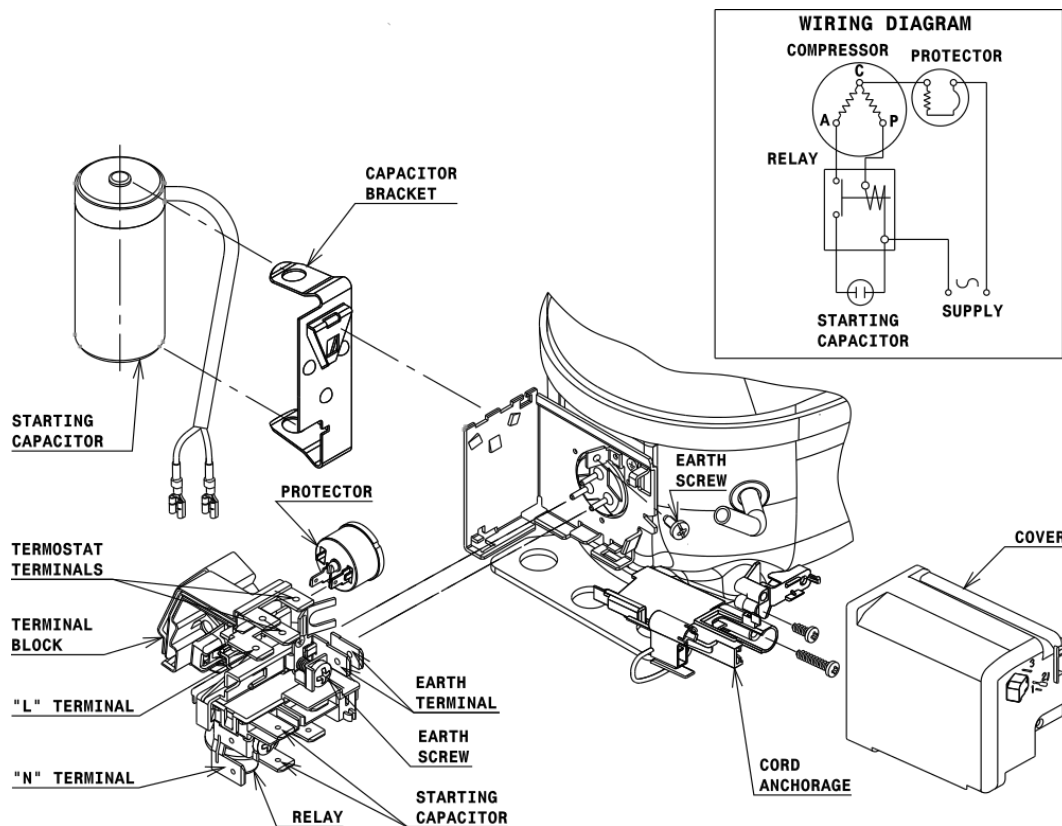
| X | Cooling Capacity (W) | Consumption (W) | Current (A)   | Mass Flow (kg/h)     |
|---|----------------------|-----------------|---------------|----------------------|
| 1 | 637,0493678920       | 75,0621117544   | 0,7380336870  | 10,747631556125      |
| 2 | 21,2145135383        | -0,1870778302   | -0,0020851680 | 0,39790437153113     |
| 3 | -5,8444836193        | 1,8974559508    | 0,0086354414  | -0,044063074890168   |
| 4 | 0,1549859146         | 0,0017693125    | 0,0000962170  | 0,0045012834969043   |
| 5 | -0,1509253763        | 0,0621957164    | 0,0003032130  | -0,00080223958022812 |

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

| DESIGNATION | INTERNAL DIAM. |
|-------------|----------------|
|-------------|----------------|

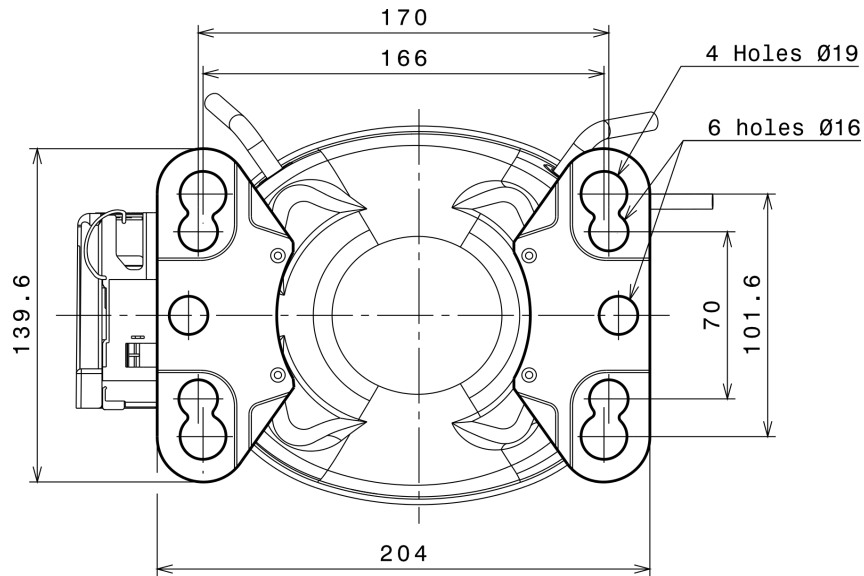


### CSIR CONNECTION (U range)



# Technical Data Sheet

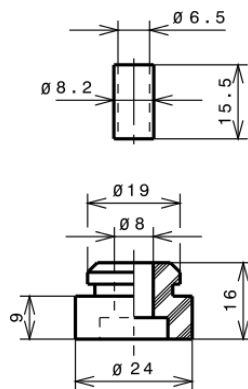
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

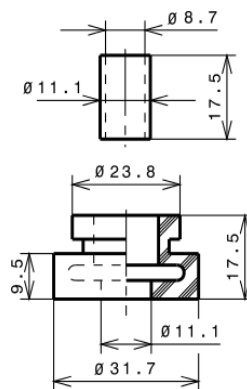
### STANDARD

Ø16 holes (170x70 net)



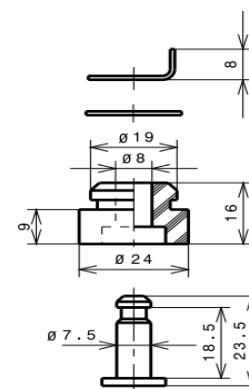
### AMERICAN FEET

Ø19 holes (166x101.6 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a HMBP

