

# Technical Data Sheet

Compressor model **GUY60RAb**  
 Voltage **220-240V 50Hz ~1**  
 Refrigerant **R134a**

## APPLICATION

## COMPRESSOR

## MOTOR

|                      |                           |              |                      |                          |               |
|----------------------|---------------------------|--------------|----------------------|--------------------------|---------------|
| Application          | High-Medium Back Pressure | Displacement | 6,00 cm <sup>3</sup> | Nominal Power            | 1/5 hp        |
| Refrigerant          | R134a                     | Diameter     | 21,99 mm             | Voltage/Frequency        | 220-240V 50Hz |
| Evaporating Temp.    | -25,0 °C to 10,0 °C       | Stroke       | 16,00 mm             | Voltage range            | 187-255 V     |
| Expansion            | Capillar/Valve            | Net Weight   | 9,16 Kg              | Type                     | CSR           |
| Comp. Cooling        | Fan cooled                | Oil type     | ISO VG 32 ESTER      | Phase number             | 1 PH          |
| Max. ambient temp.   | 43,0 °C                   | Oil charge   | 200 cm <sup>3</sup>  | Locked Rotor Amps (LRA)  | 9,00 A        |
| Compatible refriger. | R1234yf                   |              |                      | Max. Cont. Current (MCC) | 2,00 A        |
|                      |                           |              |                      | Main W. resist. at 25°C  | 14,60 Ω       |
|                      |                           |              |                      | Start W. resist. at 25°C | 37,50 Ω       |

## NOMINAL PERFORMANCE

## APPROVALS

|                  | ASHRAE       | CECOMAF      |
|------------------|--------------|--------------|
| Cooling Capacity | 560 kCal/h   | 545 W        |
| COP              | 2,95 W/W     | 2,53 W/W     |
| EER              | 2,53 kCal/Wh | 2,18 kCal/Wh |
| Input Power      | 221 W        | 216 W        |
| Current          | 1,06 A       | 1,03 A       |

## 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                     | 220 V 50 Hz        | 220 V 50 Hz         |

## ELECTRICAL COMPONENTS

|                         |                    |  |  |
|-------------------------|--------------------|--|--|
| Starting capacitor      | 47- 56 μF 330 V    |  |  |
| Run capacitor           | 5 μF 400 V         |  |  |
| Relay                   | Option 1           |  |  |
| Reference               | 2014 118. + NTC15Ω |  |  |
| Pick-Up                 | 3.80 A             |  |  |
| Drop-Out                | 3.25 A             |  |  |
| Protector               | Option 1           |  |  |
| Reference               | T0304              |  |  |
| Current                 | 6,50 A             |  |  |
| Time check              | 7,5-14 seg         |  |  |
| Disc temp. (Open/Close) | 105,00 / 61,00 °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      | 158                           | 109              | 0,56         | 1,69       | 1,45           |
| 40       | -20      | 211                           | 122              | 0,62         | 2,01       | 1,73           |
| 40       | -15      | 274                           | 135              | 0,67         | 2,36       | 2,03           |
| 40       | -10      | 347                           | 147              | 0,72         | 2,74       | 2,36           |
| 40       | -5       | 430                           | 159              | 0,77         | 3,15       | 2,71           |
| 40       | 0        | 524                           | 170              | 0,82         | 3,58       | 3,08           |
| 40       | 5        | 629                           | 181              | 0,87         | 4,03       | 3,47           |
| 40       | 7,2      | 678                           | 186              | 0,90         | 4,24       | 3,65           |
| 40       | 10       | 744                           | 192              | 0,92         | 4,51       | 3,87           |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 45 | -25 | 145 | 111 | 0,57 | 1,51 | 1,30 |
| 45 | -20 | 193 | 126 | 0,63 | 1,79 | 1,54 |
| 45 | -15 | 252 | 140 | 0,69 | 2,10 | 1,80 |
| 45 | -10 | 322 | 154 | 0,75 | 2,43 | 2,09 |
| 45 | -5  | 401 | 167 | 0,81 | 2,79 | 2,40 |
| 45 | 0   | 491 | 180 | 0,87 | 3,18 | 2,73 |
| 45 | 5   | 591 | 192 | 0,92 | 3,58 | 3,07 |
| 45 | 7,2 | 639 | 198 | 0,95 | 3,76 | 3,23 |
| 45 | 10  | 702 | 204 | 0,98 | 3,99 | 3,43 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 50 | -25 | 132 | 114 | 0,58 | 1,35 | 1,16 |
| 50 | -20 | 176 | 130 | 0,65 | 1,58 | 1,36 |
| 50 | -15 | 231 | 145 | 0,71 | 1,85 | 1,59 |
| 50 | -10 | 296 | 160 | 0,78 | 2,15 | 1,85 |
| 50 | -5  | 372 | 175 | 0,85 | 2,47 | 2,12 |
| 50 | 0   | 458 | 189 | 0,91 | 2,81 | 2,42 |
| 50 | 5   | 554 | 203 | 0,98 | 3,17 | 2,72 |
| 50 | 7,2 | 599 | 209 | 1,00 | 3,33 | 2,86 |
| 50 | 10  | 660 | 217 | 1,04 | 3,54 | 3,04 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 55 | -25 | 119 | 116 | 0,59 | 1,19 | 1,03 |
| 55 | -20 | 159 | 133 | 0,66 | 1,39 | 1,19 |
| 55 | -15 | 210 | 150 | 0,74 | 1,62 | 1,40 |
| 55 | -10 | 271 | 167 | 0,81 | 1,89 | 1,62 |
| 55 | -5  | 342 | 183 | 0,88 | 2,17 | 1,87 |
| 55 | 0   | 424 | 199 | 0,96 | 2,48 | 2,13 |
| 55 | 5   | 516 | 214 | 1,03 | 2,80 | 2,41 |
| 55 | 7,2 | 560 | 221 | 1,06 | 2,95 | 2,53 |
| 55 | 10  | 619 | 229 | 1,10 | 3,14 | 2,70 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 60 | -25 | 106 | 118 | 0,60 | 1,04 | 0,90 |
| 60 | -20 | 142 | 137 | 0,68 | 1,21 | 1,04 |
| 60 | -15 | 189 | 156 | 0,76 | 1,41 | 1,21 |
| 60 | -10 | 246 | 174 | 0,84 | 1,65 | 1,41 |
| 60 | -5  | 313 | 191 | 0,92 | 1,90 | 1,64 |
| 60 | 0   | 391 | 209 | 1,00 | 2,18 | 1,87 |
| 60 | 5   | 479 | 225 | 1,08 | 2,47 | 2,12 |
| 60 | 7,2 | 521 | 233 | 1,12 | 2,60 | 2,24 |
| 60 | 10  | 577 | 242 | 1,16 | 2,78 | 2,39 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 65 | -25 | 93  | 121 | 0,61 | 0,90 | 0,77 |
| 65 | -20 | 125 | 141 | 0,70 | 1,03 | 0,89 |
| 65 | -15 | 168 | 161 | 0,78 | 1,21 | 1,04 |
| 65 | -10 | 220 | 180 | 0,87 | 1,42 | 1,22 |
| 65 | -5  | 284 | 199 | 0,96 | 1,65 | 1,42 |
| 65 | 0   | 357 | 218 | 1,05 | 1,90 | 1,64 |
| 65 | 5   | 441 | 236 | 1,13 | 2,17 | 1,87 |
| 65 | 7,2 | 481 | 244 | 1,17 | 2,29 | 1,97 |
| 65 | 10  | 535 | 254 | 1,22 | 2,45 | 2,11 |

## 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      | 170                      | 110              | 0,56         | 1,55       | 1,34           |
| 40       | -20      | 227                      | 123              | 0,62         | 1,85       | 1,60           |
| 40       | -15      | 296                      | 135              | 0,67         | 2,18       | 1,89           |
| 40       | -10      | 375                      | 148              | 0,73         | 2,54       | 2,19           |
| 40       | -5       | 465                      | 160              | 0,78         | 2,91       | 2,51           |
| 40       | 0        | 565                      | 171              | 0,83         | 3,30       | 2,85           |
| 40       | 5        | 677                      | 182              | 0,88         | 3,71       | 3,21           |
| 40       | 7,2      | 730                      | 187              | 0,90         | 3,90       | 3,37           |
| 40       | 10       | 800                      | 193              | 0,93         | 4,14       | 3,58           |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 45 | -25 | 155 | 112 | 0,57 | 1,39 | 1,20 |
| 45 | -20 | 208 | 127 | 0,63 | 1,64 | 1,42 |
| 45 | -15 | 271 | 141 | 0,69 | 1,93 | 1,66 |
| 45 | -10 | 345 | 154 | 0,75 | 2,23 | 1,93 |
| 45 | -5  | 430 | 168 | 0,81 | 2,56 | 2,21 |
| 45 | 0   | 526 | 181 | 0,87 | 2,91 | 2,51 |
| 45 | 5   | 633 | 194 | 0,93 | 3,27 | 2,83 |
| 45 | 7,2 | 684 | 199 | 0,96 | 3,44 | 2,97 |
| 45 | 10  | 751 | 206 | 0,99 | 3,65 | 3,15 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 50 | -25 | 141 | 114 | 0,58 | 1,23 | 1,06 |
| 50 | -20 | 188 | 130 | 0,65 | 1,44 | 1,25 |
| 50 | -15 | 247 | 146 | 0,72 | 1,69 | 1,46 |
| 50 | -10 | 316 | 161 | 0,78 | 1,96 | 1,69 |
| 50 | -5  | 396 | 176 | 0,85 | 2,25 | 1,94 |
| 50 | 0   | 487 | 191 | 0,92 | 2,56 | 2,21 |
| 50 | 5   | 589 | 205 | 0,98 | 2,88 | 2,49 |
| 50 | 7,2 | 638 | 211 | 1,01 | 3,03 | 2,61 |
| 50 | 10  | 702 | 218 | 1,05 | 3,22 | 2,78 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 55 | -25 | 126 | 117 | 0,59 | 1,08 | 0,93 |
| 55 | -20 | 169 | 134 | 0,67 | 1,26 | 1,09 |
| 55 | -15 | 222 | 151 | 0,74 | 1,47 | 1,27 |
| 55 | -10 | 287 | 168 | 0,81 | 1,71 | 1,47 |
| 55 | -5  | 362 | 184 | 0,89 | 1,96 | 1,70 |
| 55 | 0   | 448 | 200 | 0,96 | 2,24 | 1,93 |
| 55 | 5   | 545 | 216 | 1,03 | 2,53 | 2,18 |
| 55 | 7,2 | 591 | 222 | 1,07 | 2,66 | 2,30 |
| 55 | 10  | 653 | 231 | 1,11 | 2,83 | 2,44 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 60 | -25 | 111 | 119 | 0,60 | 0,93 | 0,81 |
| 60 | -20 | 149 | 138 | 0,68 | 1,08 | 0,93 |
| 60 | -15 | 198 | 156 | 0,76 | 1,26 | 1,09 |
| 60 | -10 | 257 | 175 | 0,84 | 1,47 | 1,27 |
| 60 | -5  | 328 | 192 | 0,93 | 1,70 | 1,47 |
| 60 | 0   | 409 | 210 | 1,01 | 1,95 | 1,68 |
| 60 | 5   | 501 | 227 | 1,09 | 2,21 | 1,91 |
| 60 | 7,2 | 545 | 234 | 1,12 | 2,33 | 2,01 |
| 60 | 10  | 604 | 243 | 1,17 | 2,48 | 2,15 |

|    |     |     |     |      |      |      |
|----|-----|-----|-----|------|------|------|
| 65 | -25 | 96  | 121 | 0,61 | 0,79 | 0,69 |
| 65 | -20 | 129 | 142 | 0,70 | 0,91 | 0,79 |
| 65 | -15 | 173 | 162 | 0,79 | 1,07 | 0,93 |
| 65 | -10 | 228 | 181 | 0,87 | 1,26 | 1,09 |
| 65 | -5  | 294 | 201 | 0,96 | 1,46 | 1,26 |
| 65 | 0   | 370 | 219 | 1,05 | 1,69 | 1,46 |
| 65 | 5   | 457 | 238 | 1,14 | 1,92 | 1,66 |
| 65 | 7,2 | 499 | 246 | 1,18 | 2,03 | 1,75 |
| 65 | 10  | 556 | 256 | 1,23 | 2,17 | 1,88 |

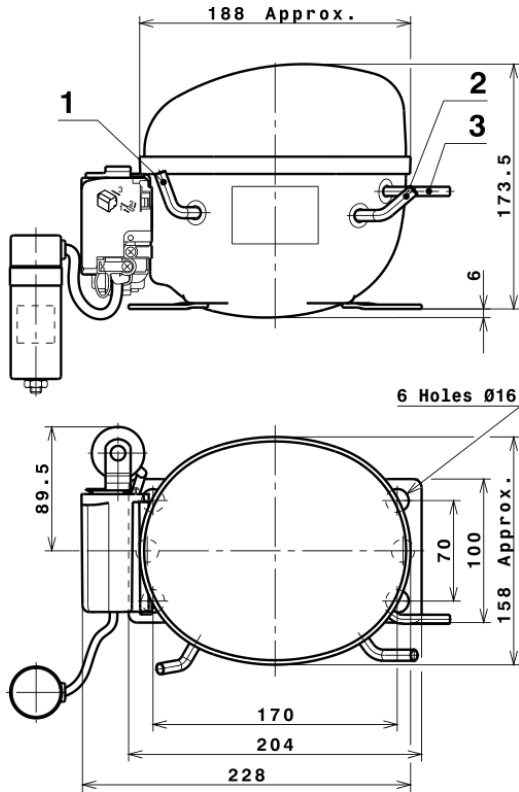
## EN12900

| X | Cooling Capacity (W) | Consumption (W) | Current (A)   | Mass Flow (kg/h)     |
|---|----------------------|-----------------|---------------|----------------------|
| 1 | 880,4683052673       | 96,4401507252   | 0,4737933637  | 14,842126285258      |
| 2 | 29,1145563943        | -0,0281589360   | -0,0007022235 | 0,54450770825998     |
| 3 | -8,0590082321        | 1,9816497768    | 0,0093104621  | -0,060184628403011   |
| 4 | 0,2141604466         | -0,0068952638   | 0,0000037895  | 0,0062231650552071   |
| 5 | -0,2031898978        | 0,0600824607    | 0,0002926539  | -0,00096549518741277 |

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

# Technical Data Sheet

## COMPRESSOR DIMENSIONS

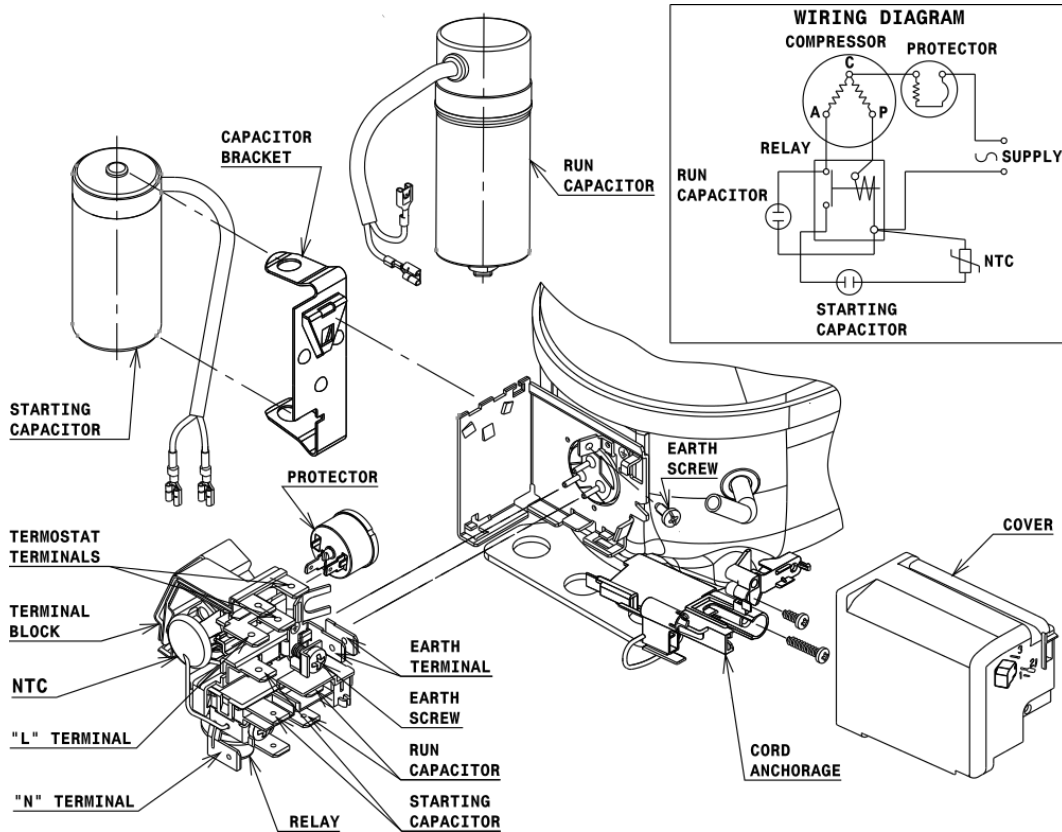


## DESIGNATION INTERNAL DIAM.

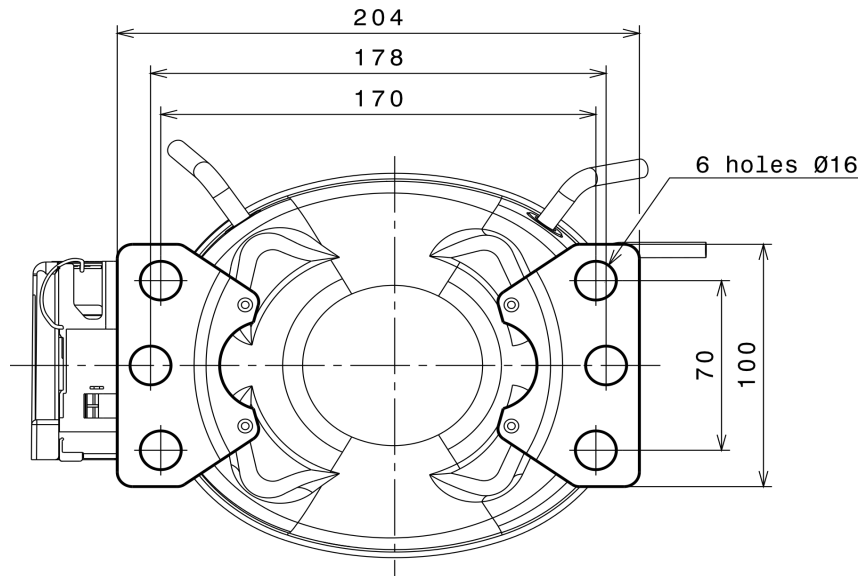
|   |           |        |
|---|-----------|--------|
| 1 | Service   | 6,2 mm |
| 2 | Suction   | 6,2 mm |
| 3 | Discharge | 4,9 mm |

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### CSR CONNECTION (CURRENT RELAY + NTC) (U range)



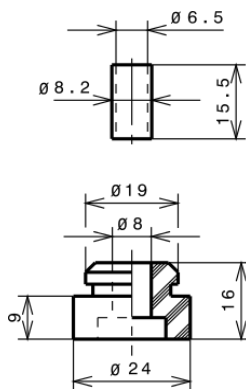
## FIXINGS



## SILENT BLOCKS (MOUNTING ACCESSORIES)

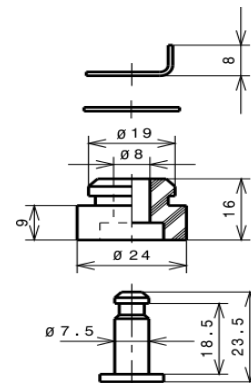
### STANDARD

Ø16 holes (170x70 net)



### SNAP-ON

Ø16 holes (170x70 net)



## SOA

SOA R134a HMBP

