

Technical Data Sheet

Compressor model **NLY60CAb**
 Voltage **220-240V 50Hz ~1**
 Refrigerant **R290**

APPLICATION

| | |
|--------------------|----------------------|
| Application | Low Back Pressure |
| Refrigerant | R290 |
| Evaporating Temp. | -40,0 °C to -10,0 °C |
| Expansion | Capillar |
| Comp. Cooling | Fan cooled |
| Max. ambient temp. | 43,0 °C |

COMPRESSOR

| | |
|--------------|----------------------|
| Displacement | 5,98 cm ³ |
| Diameter | 20,88 mm |
| Stroke | 17,47 mm |
| Net Weight | 10,90 Kg |
| Oil type | ISO VG 46 MINER |
| Oil charge | 300 cm ³ |

MOTOR

| | |
|--------------------------|---------------|
| Nominal Power | 1/5 hp |
| Voltage/Frequency | 220-240V 50Hz |
| Voltage range | 187-264 V |
| Type | RSCR |
| Phase number | 1 PH |
| Locked Rotor Amps (LRA) | 10,00 A |
| Max. Cont. Current (MCC) | 2,50 A |
| Main W. resist. at 25°C | 9,58 Ω |
| Start W. resist. at 25°C | 17,00 Ω |

NOMINAL PERFORMANCE

| | ASHRAE | CECOMAF |
|------------------|--------------|--------------|
| Cooling Capacity | 230 kCal/h | 198 W |
| COP | 1,42 W/W | 1,10 W/W |
| EER | 1,22 kCal/Wh | 0,95 kCal/Wh |
| Input Power | 188 W | 181 W |
| Current | 1,05 A | 1,02 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

| | | | | |
|-------------------------|-------------------|-------------------|-------------------|--|
| Run capacitor | 5 µF 400 V | | | |
| Relay | Option 1 | | | |
| Reference | PTC K100 | | | |
| Voltage | 200-240 V | | | |
| Resistance | 14.00 Ω | | | |
| Protector | Option 1 | Option 2 | Option 3 | |
| Reference | 4TM205NFBYY | T0462 | AE37FJ | |
| Current | 6,00 A | 6,20 A | 5,90 A | |
| Time check | 5-15 seg | 7,5-14 seg | 7,5-14 seg | |
| Disc temp. (Open/Close) | 120,00 / 61,00 °C | 110,00 / 62,00 °C | 115,00 / 62,00 °C | |

This product is approved for R290 and R600a regarding explosion safety according to standard EN 60335-1 and EN 60335-2-34

ASHRAE

| Tc °C | Te °C | Cooling Capacity kCal/h | Consumption W | Current A | COP W/W | EER kCal/Wh |
|----------|----------|-------------------------------|------------------|--------------|------------|----------------|
| 40 | -40 | 107 | 123 | 0,79 | 1,01 | 0,87 |
| 40 | -35 | 142 | 137 | 0,84 | 1,21 | 1,04 |
| 40 | -30 | 187 | 152 | 0,90 | 1,44 | 1,24 |
| 40 | -25 | 242 | 167 | 0,96 | 1,68 | 1,45 |
| 40 | -23,3 | 262 | 172 | 0,98 | 1,77 | 1,52 |
| 40 | -20 | 305 | 183 | 1,03 | 1,94 | 1,67 |
| 40 | -15 | 378 | 201 | 1,10 | 2,19 | 1,89 |
| 40 | -10 | 460 | 219 | 1,18 | 2,45 | 2,11 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 45 | -40 | 101 | 124 | 0,79 | 0,95 | 0,81 |
| 45 | -35 | 135 | 139 | 0,85 | 1,13 | 0,97 |
| 45 | -30 | 179 | 155 | 0,91 | 1,34 | 1,15 |
| 45 | -25 | 232 | 172 | 0,98 | 1,57 | 1,35 |
| 45 | -23,3 | 252 | 178 | 1,01 | 1,65 | 1,42 |
| 45 | -20 | 293 | 189 | 1,06 | 1,80 | 1,55 |
| 45 | -15 | 365 | 208 | 1,14 | 2,04 | 1,76 |
| 45 | -10 | 445 | 227 | 1,22 | 2,28 | 1,96 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 50 | -40 | 96 | 125 | 0,80 | 0,89 | 0,76 |
| 50 | -35 | 128 | 141 | 0,86 | 1,06 | 0,91 |
| 50 | -30 | 170 | 159 | 0,93 | 1,25 | 1,07 |
| 50 | -25 | 221 | 177 | 1,00 | 1,46 | 1,25 |
| 50 | -23,3 | 241 | 183 | 1,03 | 1,53 | 1,32 |
| 50 | -20 | 282 | 195 | 1,08 | 1,68 | 1,44 |
| 50 | -15 | 351 | 215 | 1,17 | 1,90 | 1,63 |
| 50 | -10 | 430 | 236 | 1,26 | 2,12 | 1,83 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 55 | -40 | 90 | 126 | 0,80 | 0,83 | 0,71 |
| 55 | -35 | 121 | 144 | 0,87 | 0,98 | 0,84 |
| 55 | -30 | 161 | 162 | 0,94 | 1,16 | 1,00 |
| 55 | -25 | 211 | 181 | 1,02 | 1,35 | 1,16 |
| 55 | -23,3 | 230 | 188 | 1,05 | 1,42 | 1,22 |
| 55 | -20 | 270 | 201 | 1,11 | 1,56 | 1,34 |
| 55 | -15 | 338 | 222 | 1,20 | 1,77 | 1,52 |
| 55 | -10 | 415 | 244 | 1,30 | 1,98 | 1,70 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 60 | -40 | 84 | 127 | 0,80 | 0,77 | 0,67 |
| 60 | -35 | 114 | 146 | 0,88 | 0,91 | 0,78 |
| 60 | -30 | 153 | 166 | 0,96 | 1,07 | 0,92 |
| 60 | -25 | 201 | 186 | 1,04 | 1,26 | 1,08 |
| 60 | -23,3 | 219 | 193 | 1,07 | 1,32 | 1,13 |
| 60 | -20 | 258 | 207 | 1,13 | 1,45 | 1,24 |
| 60 | -15 | 324 | 230 | 1,23 | 1,64 | 1,41 |
| 60 | -10 | 400 | 253 | 1,34 | 1,84 | 1,58 |

CECOMAF

| Tc °C | Te °C | Cooling Capacity W | Consumption W | Current A | COP W/W | EER kCal/Wh |
|----------|----------|--------------------------|------------------|--------------|------------|----------------|
| 40 | -40 | 115 | 123 | 0,79 | 0,94 | 0,81 |
| 40 | -35 | 158 | 137 | 0,84 | 1,15 | 1,00 |
| 40 | -30 | 209 | 152 | 0,90 | 1,38 | 1,19 |
| 40 | -25 | 269 | 167 | 0,96 | 1,61 | 1,39 |
| 40 | -23,3 | 291 | 172 | 0,98 | 1,69 | 1,46 |
| 40 | -20 | 337 | 183 | 1,03 | 1,84 | 1,59 |
| 40 | -15 | 414 | 201 | 1,10 | 2,06 | 1,78 |
| 40 | -10 | 499 | 219 | 1,18 | 2,28 | 1,97 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 45 | -40 | 105 | 124 | 0,79 | 0,85 | 0,73 |
| 45 | -35 | 143 | 139 | 0,85 | 1,03 | 0,89 |
| 45 | -30 | 190 | 155 | 0,91 | 1,23 | 1,06 |
| 45 | -25 | 245 | 172 | 0,98 | 1,43 | 1,23 |
| 45 | -23,3 | 266 | 178 | 1,01 | 1,50 | 1,29 |
| 45 | -20 | 309 | 189 | 1,06 | 1,63 | 1,41 |
| 45 | -15 | 381 | 208 | 1,14 | 1,84 | 1,59 |
| 45 | -10 | 462 | 227 | 1,22 | 2,04 | 1,76 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 50 | -40 | 95 | 125 | 0,80 | 0,76 | 0,66 |
| 50 | -35 | 129 | 141 | 0,86 | 0,91 | 0,79 |
| 50 | -30 | 171 | 159 | 0,93 | 1,08 | 0,93 |
| 50 | -25 | 222 | 177 | 1,00 | 1,26 | 1,09 |
| 50 | -23,3 | 241 | 183 | 1,03 | 1,32 | 1,14 |
| 50 | -20 | 281 | 195 | 1,08 | 1,44 | 1,24 |
| 50 | -15 | 349 | 215 | 1,17 | 1,62 | 1,40 |
| 50 | -10 | 426 | 236 | 1,26 | 1,81 | 1,56 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 55 | -40 | 85 | 126 | 0,80 | 0,67 | 0,58 |
| 55 | -35 | 114 | 144 | 0,87 | 0,79 | 0,69 |
| 55 | -30 | 152 | 162 | 0,94 | 0,94 | 0,81 |
| 55 | -25 | 198 | 181 | 1,02 | 1,10 | 0,95 |
| 55 | -23,3 | 216 | 188 | 1,05 | 1,15 | 0,99 |
| 55 | -20 | 254 | 201 | 1,11 | 1,26 | 1,09 |
| 55 | -15 | 317 | 222 | 1,20 | 1,43 | 1,23 |
| 55 | -10 | 389 | 244 | 1,30 | 1,60 | 1,38 |

| | | | | | | |
|----|-------|-----|-----|------|------|------|
| 60 | -40 | 75 | 127 | 0,80 | 0,59 | 0,51 |
| 60 | -35 | 100 | 146 | 0,88 | 0,68 | 0,59 |
| 60 | -30 | 133 | 166 | 0,96 | 0,80 | 0,69 |
| 60 | -25 | 175 | 186 | 1,04 | 0,94 | 0,81 |
| 60 | -23,3 | 191 | 193 | 1,07 | 0,99 | 0,86 |
| 60 | -20 | 226 | 207 | 1,13 | 1,09 | 0,94 |
| 60 | -15 | 285 | 230 | 1,23 | 1,24 | 1,07 |
| 60 | -10 | 353 | 253 | 1,34 | 1,40 | 1,21 |

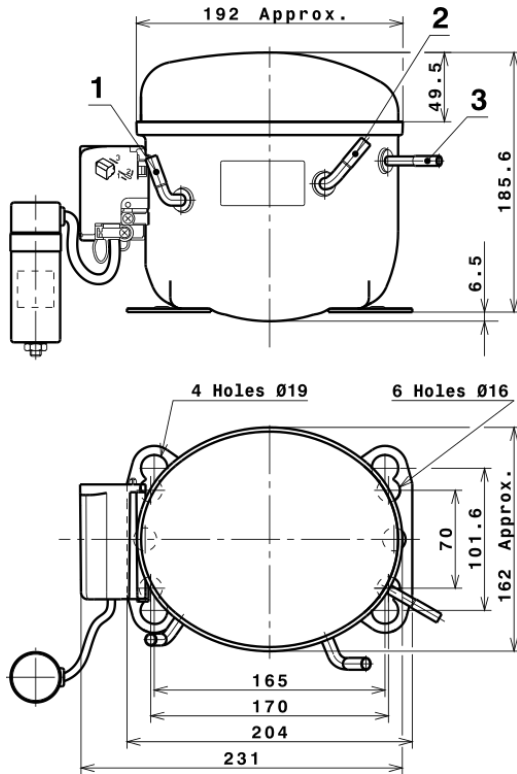
EN12900

| X | Cooling Capacity (W) | Consumption (W) | Current (A) | Mass Flow (kg/h) |
|---|----------------------|-----------------|--------------|----------------------|
| 1 | 1.052,2687529982 | 173,5582049385 | 0,9757225004 | 10,045041384409 |
| 2 | 28,1020763255 | 2,1112277177 | 0,0106544398 | 0,30235631614507 |
| 3 | -9,2506713439 | 2,2545798648 | 0,0105397773 | -0,045702294135043 |
| 4 | 0,1667643683 | 0,0177393914 | 0,0001362294 | 0,0024301339937139 |
| 5 | -0,1800176249 | 0,0512561435 | 0,0002439919 | -0,00080623163043106 |

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

Technical Data Sheet

COMPRESSOR DIMENSIONS

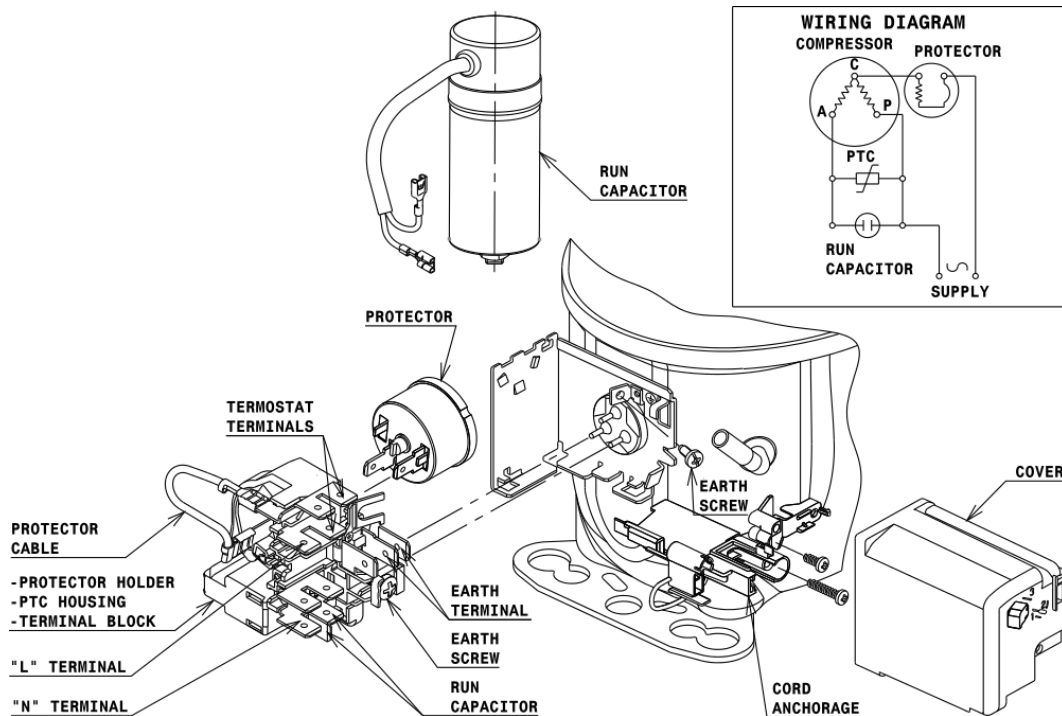


DESIGNATION INTERNAL DIAM.

| DESIGNATION | INTERNAL DIAM. |
|-------------|----------------|
| 1 Suction | 6,5 mm |
| 2 Service | 6,5 mm |
| 3 Discharge | 4,9 mm |

WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

RSCR 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 R290 LBP

