# Technical Data Sheet

Compressor model **B65CL**

Voltage **220-240V 50Hz ~1**

Refrigerant **R600a**

### APPLICATION

| | |
|---|---|
| Application | Low Back Pressure |
| Refrigerant | R600a |
| Evaporating Temp. | -35,0 ºC to -15,0 ºC |
| Expansion | Capillar |
| Comp. Cooling | Static |
| Max. ambient temp. | 43,0 ºC |

### COMPRESSOR

| | |
|---|---|
| Displacement | 6,50 cm³ |
| Diameter | 21,00 mm |
| Stroke | 18,80 mm |
| Net Weight | 5,45 Kg |
| Oil type | ISO VG 10 MINER |
| Oil charge | 130 cm³ |

### MOTOR

| | |
|---|---|
| Nominal Power | 1/8 hp |
| Voltage/Frequency | 220-240V 50Hz |
| Voltage range | 187-255 V |
| Type | RSIR |
| Phase number | 1 PH |
| Locked Rotor Amps (LRA) | 3,22 A |
| Max. Cont. Current (MCC) | 0,68 A |
| Main W. resist. at 25ºC | 30,40 Ω |
| Start W. resist. at 25ºC | 16,95 Ω |

### NOMINAL PERFORMANCE

| | ASHRAE | CECOMAF |
|---|---|---|
| Cooling Capacity | 90 kCal/h | 79 W |
| COP | 1,40 W/W | 1,10 W/W |
| EER | 1,20 kCal/Wh | 0,95 kCal/Wh |
| Input Power | 75 W | 72 W |
| Current | 0,52 A | 0,50 A |

### APPROVALS

### TEST CYCLE CONDITIONS

| | **ASHRAE** | **CECOMAF** |
|---|---|---|
| | **LBP (B)** | **LBP (A)** |
| Evaporating temp. ($T_e$) | -23,3 ºC | -25,0 ºC |
| Condensing temp. ($T_c$) | 55,0 ºC | 55,0 ºC |
| Liquid temp. ($T_{liq.}$) | 32,0 ºC | 55,0 ºC |
| Ambient temp. ($T_{amb.}$) | 32,0 ºC | 32,0 ºC |
| Suction temp. ($T_{suction}$) | 32,0 ºC | 32,0 ºC |
| Voltage/Frequency | 220 V 50 Hz | 220 V 50 Hz |

### ELECTRICAL COMPONENTS

| | | | | |
|---|---|---|---|---|
| Relay | Option 1 | | | |
| Reference | JPQII-15 | | | |
| Voltage | 220-240 V | | | |
| Resistance | Ω | | | |
| Protector | Option 1 | | | |
| Reference | BT30-125 | | | |
| Current | | | | |
| Time check | | | | |
| Disc temp. (Open/Close) | 125,00 / 61,00 ºC | | | |

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

# Technical Data Sheet

cubigel compressors

## ASHRAE

| Tc °C | Te °C | Cooling Capacity kCal/h | Consumption W | Current A | COP W/W | EER kCal/Wh |
|---|---|---|---|---|---|---|
| 40 | -35 | 57 | 55 | 0,43 | 1,21 | 1,04 |
| 40 | -30 | 73 | 62 | 0,46 | 1,37 | 1,18 |
| 40 | -25 | 95 | 70 | 0,50 | 1,58 | 1,36 |
| 40 | -23,3 | 104 | 73 | 0,51 | 1,66 | 1,43 |
| 40 | -20 | 122 | 78 | 0,54 | 1,81 | 1,56 |
| 40 | -15 | 155 | 88 | 0,58 | 2,06 | 1,77 |
| 40 | -10 | 194 | 98 | 0,64 | 2,30 | 1,98 |
| 45 | -35 | 54 | 55 | 0,43 | 1,15 | 0,99 |
| 45 | -30 | 70 | 62 | 0,46 | 1,30 | 1,12 |
| 45 | -25 | 91 | 70 | 0,50 | 1,50 | 1,29 |
| 45 | -23,3 | 99 | 73 | 0,51 | 1,57 | 1,35 |
| 45 | -20 | 117 | 80 | 0,54 | 1,72 | 1,48 |
| 45 | -15 | 150 | 89 | 0,59 | 1,95 | 1,67 |
| 45 | -10 | 188 | 100 | 0,65 | 2,18 | 1,88 |
| 50 | -35 | 51 | 54 | 0,43 | 1,09 | 0,94 |
| 50 | -30 | 66 | 62 | 0,46 | 1,23 | 1,06 |
| 50 | -25 | 86 | 71 | 0,50 | 1,41 | 1,21 |
| 50 | -23,3 | 95 | 74 | 0,52 | 1,48 | 1,27 |
| 50 | -20 | 112 | 81 | 0,55 | 1,62 | 1,39 |
| 50 | -15 | 144 | 91 | 0,60 | 1,84 | 1,58 |
| 50 | -10 | 181 | 102 | 0,66 | 2,07 | 1,78 |
| 55 | -35 | 48 | 54 | 0,43 | 1,03 | 0,89 |
| 55 | -30 | 62 | 62 | 0,46 | 1,16 | 1,00 |
| 55 | -25 | 82 | 72 | 0,50 | 1,33 | 1,14 |
| 55 | -23,3 | 90 | 75 | 0,52 | 1,40 | 1,20 |
| 55 | -20 | 107 | 82 | 0,55 | 1,53 | 1,31 |
| 55 | -15 | 138 | 92 | 0,61 | 1,74 | 1,50 |
| 55 | -10 | 175 | 104 | 0,67 | 1,96 | 1,68 |
| 60 | -35 | 45 | 54 | 0,43 | 0,98 | 0,84 |
| 60 | -30 | 59 | 63 | 0,46 | 1,09 | 0,94 |
| 60 | -25 | 78 | 72 | 0,51 | 1,25 | 1,07 |
| 60 | -23,3 | 85 | 76 | 0,52 | 1,31 | 1,13 |
| 60 | -20 | 102 | 83 | 0,56 | 1,44 | 1,24 |
| 60 | -15 | 133 | 94 | 0,61 | 1,64 | 1,41 |
| 60 | -10 | 169 | 106 | 0,68 | 1,85 | 1,59 |

## CECOMAF

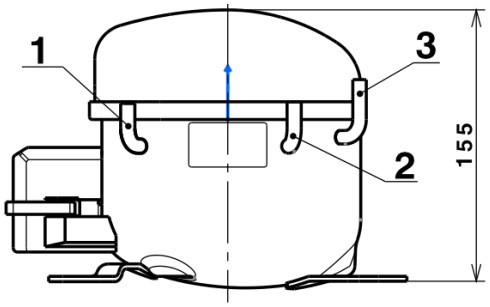
| Tc °C | Te °C | Cooling Capacity W | Consumption W | Current A | COP W/W | EER kCal/Wh |
|---|---|---|---|---|---|---|
| 40 | -35 | 62 | 55 | 0,43 | 1,13 | 0,98 |
| 40 | -30 | 82 | 62 | 0,46 | 1,31 | 1,14 |
| 40 | -25 | 106 | 70 | 0,50 | 1,52 | 1,31 |
| 40 | -23,3 | 116 | 73 | 0,51 | 1,59 | 1,38 |
| 40 | -20 | 136 | 78 | 0,54 | 1,73 | 1,50 |
| 40 | -15 | 171 | 88 | 0,58 | 1,95 | 1,69 |
| 40 | -10 | 212 | 98 | 0,64 | 2,16 | 1,87 |
| 45 | -35 | 57 | 55 | 0,43 | 1,04 | 0,90 |
| 45 | -30 | 74 | 62 | 0,46 | 1,19 | 1,03 |
| 45 | -25 | 97 | 70 | 0,50 | 1,38 | 1,19 |
| 45 | -23,3 | 106 | 73 | 0,51 | 1,44 | 1,25 |
| 45 | -20 | 125 | 80 | 0,54 | 1,57 | 1,36 |
| 45 | -15 | 158 | 89 | 0,59 | 1,77 | 1,53 |
| 45 | -10 | 197 | 100 | 0,65 | 1,97 | 1,70 |
| 50 | -35 | 51 | 54 | 0,43 | 0,95 | 0,82 |
| 50 | -30 | 67 | 62 | 0,46 | 1,07 | 0,93 |
| 50 | -25 | 88 | 71 | 0,50 | 1,23 | 1,07 |
| 50 | -23,3 | 96 | 74 | 0,52 | 1,29 | 1,12 |
| 50 | -20 | 114 | 81 | 0,55 | 1,41 | 1,22 |
| 50 | -15 | 145 | 91 | 0,60 | 1,60 | 1,38 |
| 50 | -10 | 182 | 102 | 0,66 | 1,79 | 1,54 |
| 55 | -35 | 46 | 54 | 0,43 | 0,85 | 0,74 |
| 55 | -30 | 60 | 62 | 0,46 | 0,95 | 0,82 |
| 55 | -25 | 79 | 72 | 0,50 | 1,10 | 0,95 |
| 55 | -23,3 | 86 | 75 | 0,52 | 1,15 | 0,99 |
| 55 | -20 | 103 | 82 | 0,55 | 1,26 | 1,09 |
| 55 | -15 | 132 | 92 | 0,61 | 1,43 | 1,24 |
| 55 | -10 | 167 | 104 | 0,67 | 1,61 | 1,39 |
| 60 | -35 | 41 | 54 | 0,43 | 0,76 | 0,65 |
| 60 | -30 | 52 | 63 | 0,46 | 0,84 | 0,72 |
| 60 | -25 | 69 | 72 | 0,51 | 0,96 | 0,83 |
| 60 | -23,3 | 76 | 76 | 0,52 | 1,01 | 0,87 |
| 60 | -20 | 92 | 83 | 0,56 | 1,11 | 0,96 |
| 60 | -15 | 120 | 94 | 0,61 | 1,27 | 1,10 |
| 60 | -10 | 153 | 106 | 0,68 | 1,44 | 1,24 |

## EN12900

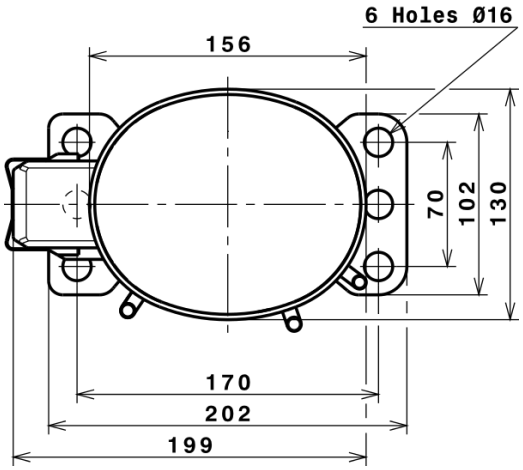
| X | Cooling Capacity (W) | Consumption (W) | Current (A) | Mass Flow (kg/h) |
|---|---|---|---|---|
| 1 | 453,0324600135 | 99,4091686648 | 0,6513343042 | 4,5962239590866 |
| 2 | 13,5869195712 | 1,7160186319 | 0,0110306362 | 0,15365928326644 |
| 3 | -3,7768280791 | 0,5998207157 | 0,0033494983 | -0,020144241522063 |
| 4 | 0,1036187514 | 0,0159472464 | 0,0001502794 | 0,0014969622812441 |
| 5 | -0,0767642524 | 0,0190827023 | 0,0001034250 | -0,00035291952723668 |

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

## COMPRESSOR DIMENSIONS

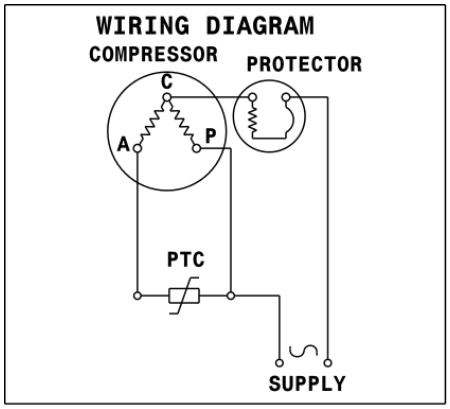


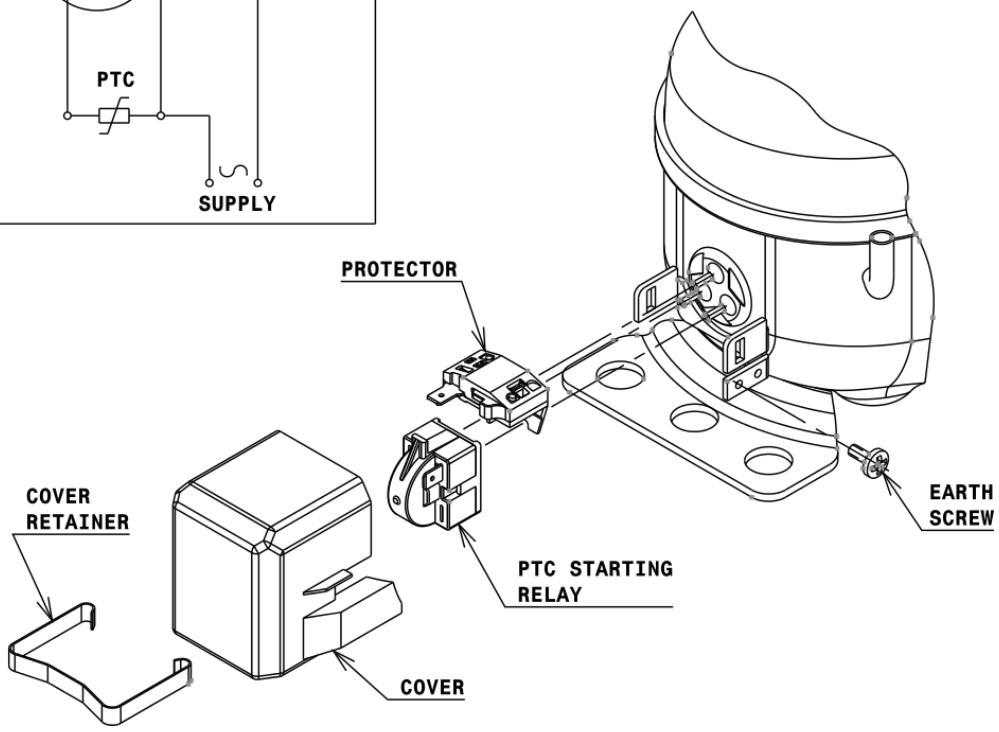

| | DESIGNATION | INTERNAL DIAM. |
|---|---|---|
| 1 | Suction | 6,1 mm |
| 2 | Service | 6,1 mm |
| 3 | Discharge | 5,1 mm |



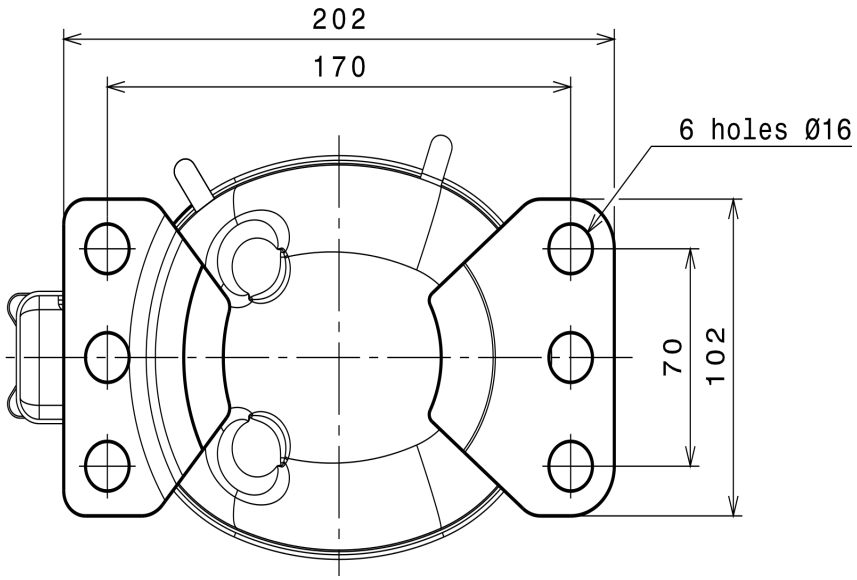

## WIRING DIAGRAMS AND ELECTRICAL ASSEMBLY

### RSIR CONNECTION (PTC) (B, Small L ranges)



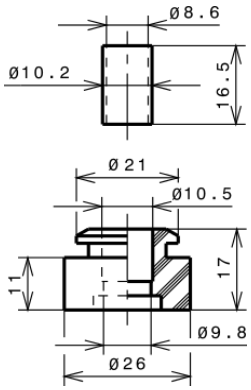
## FIXINGS




## SILENT BLOCKS (MOUNTING ACCESSORIES)

### STANDARD

**Ø16 holes (170x70 net)**




## SOA

**SOA R600a LBP**