

## Model

|             |                |                         |             |                 |
|-------------|----------------|-------------------------|-------------|-----------------|
| Designation | <b>HMK80AA</b> | <b>220-240V/50Hz 1~</b> | Sales code: | <b>16050800</b> |
|-------------|----------------|-------------------------|-------------|-----------------|

## Compressor design

|                            |                                 |                       |                                |
|----------------------------|---------------------------------|-----------------------|--------------------------------|
| Oil type                   | Mineral                         | Refrigerant(s)        | <b>R600a</b>                   |
| Oil viscosity              | 4,6cST                          | Displacement          | 8,1cm <sup>3</sup> / 0,49cu.in |
| Oil quantity               | 162cm <sup>3</sup> / 5,5fl.oz   | Compressors on pallet | 100                            |
| Refr. charge - tech. limit | 150g / 5,3oz                    |                       |                                |
| Free gas volume comp.      | 1520cm <sup>3</sup> / 51,4fl.oz |                       |                                |
| Weight                     | 7,6kg / 16,8lbs                 |                       |                                |
| Motor protection           | external                        |                       |                                |
| Winding resistance main    | 29,4Ω (at 25°C)                 |                       |                                |
| Winding resistance aux     | 16,5Ω (at 25°C)                 |                       |                                |
| Max. winding temp.         | 130°C / 266°F                   |                       |                                |
| Max. discharge temp.       | 120°C / 248°F                   |                       |                                |



## General - Configurations with HMK80AA

### Conf. 1

|                        |               |
|------------------------|---------------|
| Motorconfiguration     | RSIR          |
| Power supply (nominal) | 220-240V/50Hz |
| Number of phases       | 1             |
| Voltage range          | 187-264V      |
| Approvals              | VDE           |
| Starting torque        | LST           |
| Note                   | - / -         |

## Applications with HMK80AA

### Conf. 1

|                         |        |
|-------------------------|--------|
| Refrigerant             | R600a  |
| Application             | LBP    |
| System cooling          | static |
| Hot gas defrost         | -/-    |
| Long interval pull down | -/-    |

## Electrical data - Configurations with HMK80AA

### Conf. 1

|                              |       |
|------------------------------|-------|
| Starting device type         | PTC   |
| Run capacitor                | -/-   |
| Start capacitor              | -/-   |
| LRA (locked rotor amps / 4s) | 3,55A |
| RLA (rated load amps / 1s)   | 0,8A  |
| Cut in current               | 10A   |

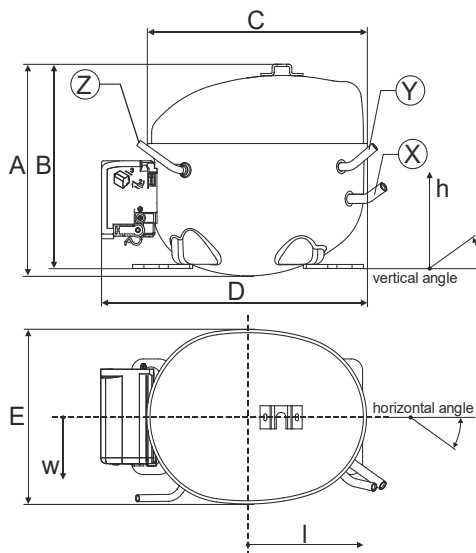
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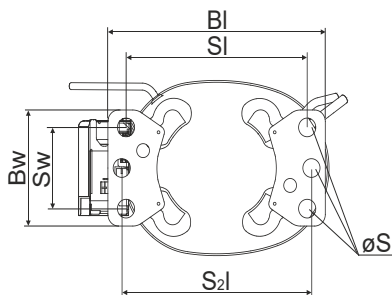
## Compressor dimensions

|                |                   |                |
|----------------|-------------------|----------------|
| <b>Housing</b> | A Height          | 174mm / 6,85in |
|                | B Height          | 167mm / 6,57in |
|                | C Length shell    | 194mm / 7,64in |
|                | D Length w. cover | 238mm / 9,37in |
|                | E Width           | 151mm / 5,94in |

| Connectors            |      | Suction      | Discharge   | Process      |
|-----------------------|------|--------------|-------------|--------------|
|                       |      | X            | Y           | Z            |
| Diameter              | [mm] | øi 6,16-6,24 | øi 5,1-5,2  | øi 6,11-6,29 |
| (i:inside, o:outside) | [in] | øi 0,24-0,25 | øi 0,2-0,2  | øi 0,24-0,25 |
| Material              |      | copper       | copper      | copper       |
| Horizontal angle      | ±2°  | 54°          | 35°         | 45°          |
| Vertical angle        | ±2°  | 35°          | 40°         | 35°          |
| Position l/h/w        | [mm] | 120/92/62    | 112/106/62  | -86/102/70   |
|                       | [in] | 4,7/3,6/2,4  | 4,4/4,2/2,4 | -3,4/4/2,8   |
| Straight tube l.      | [mm] | 14           | 14          | 14           |
|                       | [in] | 0,5          | 0,5         | 0,5          |

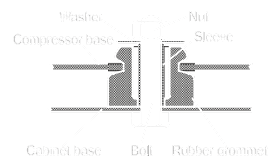


## Compressor fixation

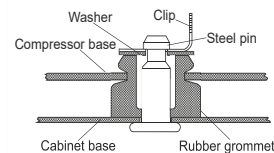


| Baseplate   | [mm] | [inch] |
|-------------|------|--------|
| BI          | 204  | 8.03   |
| BW          | 100  | 3.94   |
| Small holes |      |        |
|             | [mm] | [inch] |
| SI          | 170  | 6.7    |
| SW          | 70   | 2.76   |
| S2l         | 178  | 7      |
| øS          | ø 16 | ø 0.63 |

### Bolt joint



### Snap on



## Mounting accessories

|   |            |                     |
|---|------------|---------------------|
| '4ZN' with rubber grommet                   | order code | 772N                |
| '4ZN' with rubber grommet and sleeve for M6 |            | 768N                |
| Bolt joint kit                              |            | 4ZN + 118-1917 (18) |
| '4ZN' with Snap on kit                      |            | 776N                |

## Application notes

Provision for PE Grounding is located at the PE Stamp on the compressor

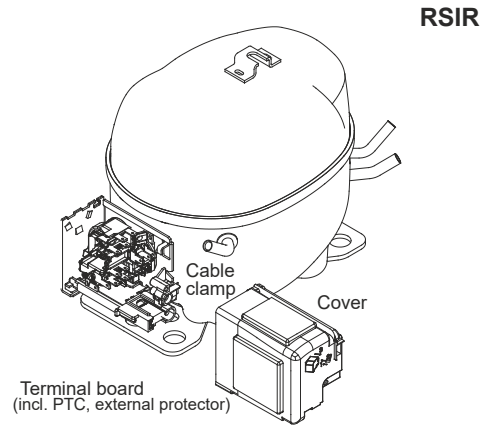
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## Configuration

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | RSIR             |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant            | R600a            |
| Application            | LBP              |
| Voltage range          | 187-264V         |
| Starting torque        | LST              |
| Approvals              | VDE              |

## Electrical accessories / wiring diagram

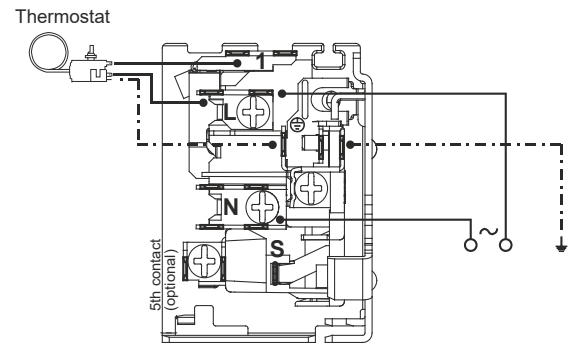


## Ambient/ machine room temperatures minimum /maximum

Ambient temperature range: 10 - 43°C / 50 - 110°F

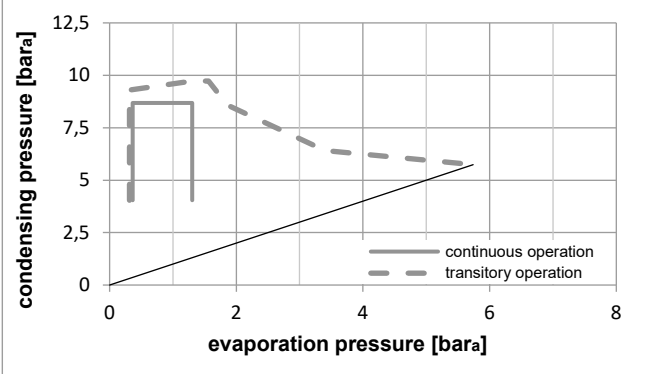
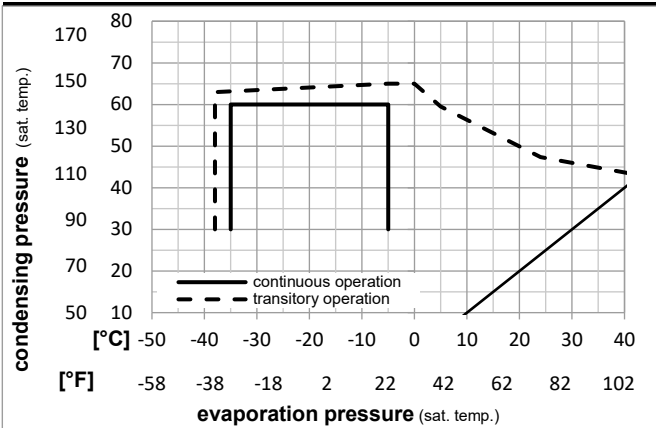
Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: static



## Operation Limits

### Operation pressure range



8858-6

### Components

|                                 |          |
|---------------------------------|----------|
| terminal board (PTC,4.8mm,K100) | 15163500 |
| cover                           | 15759500 |
| cable clamp                     | 11341000 |
| screw uni en iso 4757           | 10641201 |

### Model

Designation **HMK80AA** **220-240V/50Hz** Conf. 1 Sales code: **16050800**

### Optimization + standard conditions

R600a, 220V/50Hz, RSIR, static, VDE

| Evaporating pressure (saturation temperature) |     |     |      | Condensing pressure (saturation temperature) |         |          | Return gas temp. |          |           | Liquid temp. |      |        | Cooling capacity |  |  | COP | EER | P1 | I | Ref. mass flow     |  |
|---|-----|-----|------|--|---------|----------|------------------|----------|-----------|--------------|------|--------|------------------|--|--|-----|-----|----|---|--------------------|--|
| pe  | pc  | RGT | Tliq | [W]  | [Btu/h] | [kcal/h] | [W/W]            | [Btu/Wh] | [kcal/Wh] | [W]          | [A]  | [kg/h] |                  |  |  |     |     |    |   |                    |  |
| [°C]  | -23 | 54  | 32   | 32   | 135,9   | 464      | 117,0            | 1,50     | 5,13      | 1,29         | 90,5 | 0,62   | 1,46             |  |  |     |     |    |   | <b>ASHRAE LBP</b>  |  |
| [°F]  | -10 | 130 | 90   | 90   |         |          |                  |          |           |              |      |        |                  |  |  |     |     |    |   |                    |  |
| [°C]  | -25 | 55  | 32   | 55   | 101,7   | 347      | 87,5             | 1,18     | 4,02      | 1,01         | 86,5 | 0,61   | 1,33             |  |  |     |     |    |   | <b>cecomaf LBP</b> |  |
| [°F]  | -13 | 131 | 90   | 131  |         |          |                  |          |           |              |      |        |                  |  |  |     |     |    |   |                    |  |
| [°C]  | -35 | 40  | 20   | 40   | 72,6    | 248      | 62,5             | 1,12     | 3,84      | 0,97         | 64,6 | 0,52   | 0,88             |  |  |     |     |    |   | <b>EN12900 LBP</b> |  |
| [°F]  | -31 | 104 | 68   | 104  |         |          |                  |          |           |              |      |        |                  |  |  |     |     |    |   |                    |  |
| [°C]  | -23 | 49  | 4,4  | 49   | 109,9   | 375      | 94,6             | 1,24     | 4,24      | 1,07         | 88,6 | 0,61   | 1,61             |  |  |     |     |    |   | <b>ARI540 LBP</b>  |  |
| [°F]  | -10 | 120 | 40   | 120  |         |          |                  |          |           |              |      |        |                  |  |  |     |     |    |   |                    |  |
| [°C]  | -23 | 41  | 32   | 32   | 144,2   | 493      | 124,1            | 1,68     | 5,74      | 1,45         | 85,8 | 0,60   | 1,55             |  |  |     |     |    |   | <b>AHAM LBP</b>    |  |
| [°F]  | -10 | 105 | 90   | 90   |         |          |                  |          |           |              |      |        |                  |  |  |     |     |    |   |                    |  |
| [°C]  | -35 | 45  | 32   | 45   | 68,1    | 233      | 58,6             | 1,07     | 3,65      | 0,92         | 63,8 | 0,51   | 0,81             |  |  |     |     |    |   | <b>opt</b>         |  |
| [°F]  | -31 | 113 | 90   | 113  |         |          |                  |          |           |              |      |        |                  |  |  |     |     |    |   |                    |  |

### Performance tables

R600a, 220V/50Hz, RSIR, static, VDE

|                  | pe   |      | Cooling capacity |         |          | COP   | EER      |           | P1    | I    | m      |
|------------------|------|------|------------------|---------|----------|-------|----------|-----------|-------|------|--------|
|                  | [°C] | [°F] | [W]              | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W]   | [A]  | [kg/h] |
| [°C / °F]        | -35  | -31  | 68,1             | 233     | 58,6     | 1,07  | 3,65     | 0,92      | 63,8  | 0,51 | 0,81   |
| cond. pressure   | -30  | -22  | 89,6             | 306     | 77,1     | 1,21  | 4,14     | 1,04      | 73,9  | 0,55 | 1,07   |
| pc= 45/113       | -25  | -13  | 117,1            | 400     | 100,8    | 1,40  | 4,77     | 1,20      | 83,9  | 0,59 | 1,39   |
| return gas temp. | -23  | -10  | 127,8            | 437     | 110,0    | 1,46  | 5,00     | 1,26      | 87,3  | 0,61 | 1,52   |
| RGT= 32/90       | -20  | -4   | 150,7            | 514     | 129,7    | 1,60  | 5,47     | 1,38      | 94,0  | 0,64 | 1,80   |
| liquid temp      | -15  | 5    | 190,2            | 650     | 163,7    | 1,83  | 6,24     | 1,57      | 104,1 | 0,69 | 2,27   |
| Tliq= 45/113     | -5   | 23   | 287,3            | 981     | 247,3    | 2,31  | 7,88     | 1,99      | 124,6 | 0,78 | 3,45   |
| [°C / °F]        | -35  | -31  | 54,7             | 187     | 47,1     | 0,88  | 3,01     | 0,76      | 62,1  | 0,49 | 0,71   |
| cond. pressure   | -30  | -22  | 75,6             | 258     | 65,1     | 1,02  | 3,48     | 0,88      | 74,1  | 0,55 | 0,99   |
| pc= 55/131       | -25  | -13  | 101,7            | 347     | 87,5     | 1,18  | 4,02     | 1,01      | 86,5  | 0,61 | 1,33   |
| return gas temp  | -23  | -10  | 111,7            | 382     | 96,2     | 1,23  | 4,21     | 1,06      | 90,7  | 0,62 | 1,46   |
| RGT= 32/90       | -20  | -4   | 132,9            | 454     | 114,4    | 1,34  | 4,58     | 1,15      | 99,1  | 0,66 | 1,74   |
| liquid temp      | -15  | 5    | 169,4            | 578     | 145,8    | 1,51  | 5,16     | 1,30      | 112,0 | 0,72 | 2,22   |
| Tliq= 55/131     | -5   | 23   | 257,7            | 880     | 221,8    | 1,86  | 6,34     | 1,60      | 138,8 | 0,85 | 3,39   |