# Technical Data Compressor

SECOP

**Model**

| Designation | **HTK12AA** | **220-240V/50Hz 1~** | Sales code: | **16111600** |
|---|---|---|---|---|

**Compressor design**

| | | | |
|---|---|---|---|
| Oil type | Mineral | Refrigerant(s) | **R600a** |
| Oil viscosity | 5cSt | Displacement | 11,2cm³ / 0,68cu.in |
| Oil quantity | 162cm³ / 5,5fl.oz | Compressors on pallet | 100 |
| Refr. charge - tech. limit | 150g / 5,3oz | | |
| Free gas volume comp. | 1660cm³ / 56,1fl.oz | | |
| Weight | 8,5kg / 18,7lbs | | |
| Motor protection | external | | |
| Winding resistance main | 14,6Ω (at 25°C) | | |
| Winding resistance aux | 13,7Ω (at 25°C) | | |
| Max. winding temp. | 130°C / 266°F | | |
| Max. discharge temp. | 130°C / 266°F | | |


**General - Configurations with HTK12AA**

| | **Conf. 1** | **Conf. 2** |
|---|---|---|
| Motor configuration | RSIR | RSCR |
| Power supply (nominal) | 220-240V/50Hz | 220-240V/50Hz |
| Number of phases | 1 | 1 |
| Voltage range | 187-264V | 187-264V |
| Approvals | VDE | VDE |
| Starting torque | LST | LST |
| Note | Various options of connectors are possible - please contact SECOP-Sales. | |

**Applications with HTK12AA**

| | **Conf. 1** | **Conf. 2** |
|---|---|---|
| Refrigerant | R600a | R600a |
| Application | LBP | LBP |
| System cooling | static | static |
| Hot gas defrost | -/- | -/- |
| Long interval pull down | -/- | -/- |

**Electrical data - Configurations with HTK12AA**

| | **Conf. 1** | **Conf. 2** |
|---|---|---|
| Starting device type | PTC | PTC |
| Run capacitor | -/- | 4µF |
| Start capacitor | -/- | -/- |
| LRA (locked rotor amps / 4s/ $U_{(N)}$) | | |
| RLA (rated load amps / 1s/ $U_{(N)}$) | -/-A | |
| Cut in current ($U_{(N)}$) | | |

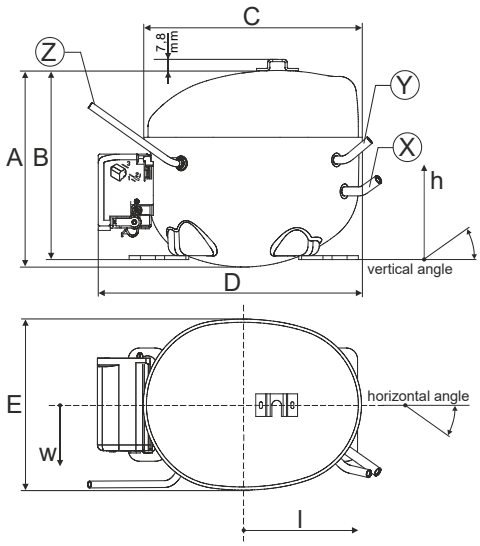
## Model

Designation **HTK12AA** **220-240V/50Hz 1~** Sales code: **16111600**

## Compressor dimensions

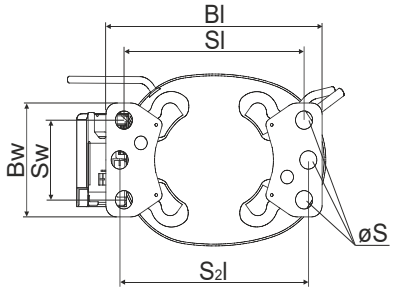
**Housing**

| | |
|---|---|
| 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 X | Discharge Y | Process Z |
|---|---|---|---|---|
| Diameter | [mm] | øi 6,1-6,2 | øi 5,1-5,2 | øo 5,92-6,08 |
| (i:inside, o:outside) | [in] | øi 0,24-0,24 | øi 0,2-0,2 | øo 0,23-0,24 |
| Material | | copper | copper | copper |
| Horizontal angle | ±2° | 45° | 13° | 0° |
| Vertical angle | ±2° | 30° | 40° | 145° |
| Position l/h/w | [mm] | 120/72/62 | 112/106/62 | -140/136/70 |
| | [in] | 4,7/2,8/2,4 | 4,4/4,2/2,4 | -5,5/5,4/2,8 |
| Straight tube l. | [mm] | 14 | 14 | 75 |
| | [in] | 0,5 | 0,5 | 3 |

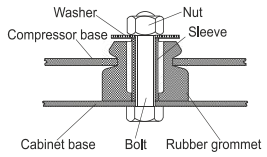
## Compressor fixation



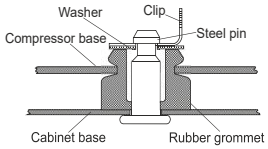

| Baseplate | [mm] | [inch] |
|---|---|---|
| Bl | 204 | 8.03 |
| Bw | 100 | 3.94 |

| Small holes | [mm] | [inch] |
|---|---|---|
| Sl | 170 | 6.7 |
| Sw | 70 | 2.76 |
| S2l | 178 | 7 |
| øS | ø 16 | ø 0.63 |

Bolt joint




Snap-on




| Mounting accessories | order code |
|---|---|
| '4ZN' with rubber grommet | 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

Housing with dip-tray fixture (omega bracket).

Various options of connectors are possible - please contact SECOP-Sales.

**Model**

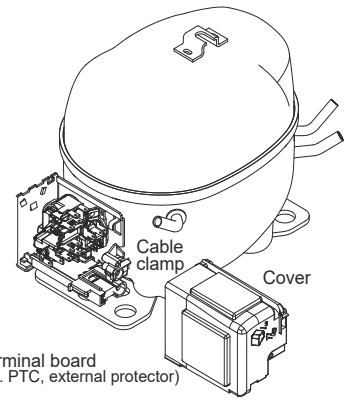
| Designation | | | | |
|---|---|---|---|---|
| | **HTK12AA** | **220-240V/50Hz** | **Conf. 1** | Sales code: **16111600** |

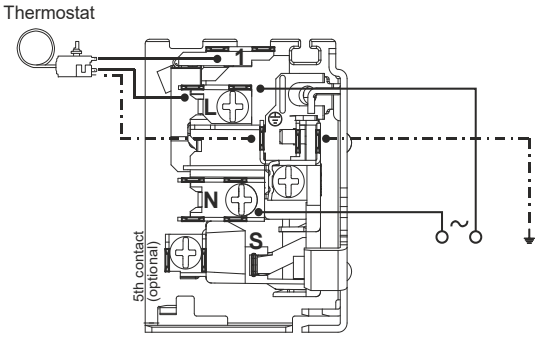
**Configuration**

| | |
|---|---|
| Motor configuration | 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**

**RSIR**

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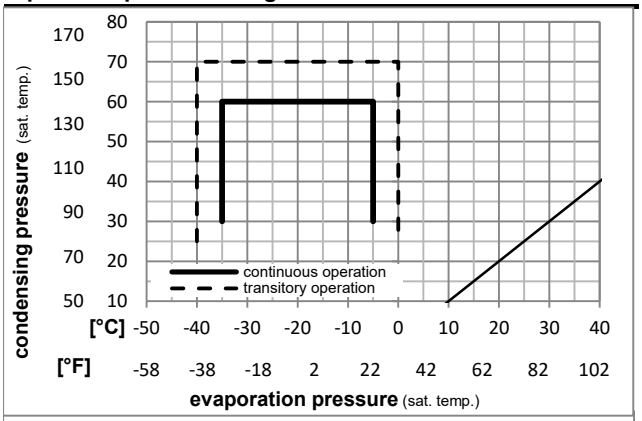
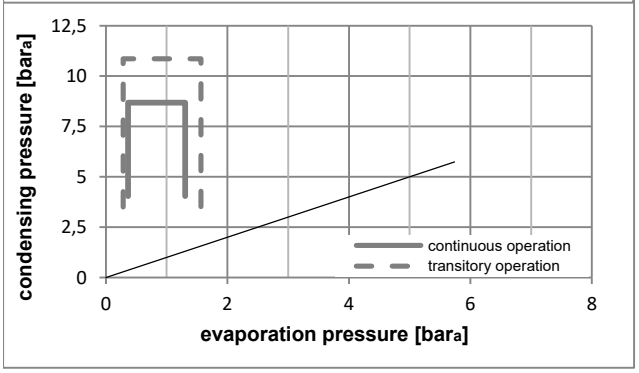
**Ambient/ machine room temperatures minimum /maximum**

| | |
|---|---|
| Ambient temperature range: | 10 - 43°C / 50 - 110°F |
| Machine room temperature range: | 10 - 48°C / 50 - 119°F |
| **Compressor cooling:** | static |

**Operation pressure range**




Components

| | | |
|---|---|---|
| . | terminal board (PTC, 4.8mm) | 15164000 |
| b | cover terminal board | 10636401 |
| . | cable clamp | 16058100 |
| . | screw - uni6954 | 10636000 |
| . | screw - uni6954 | 10636200 |
| . | screw uni en iso 4757 | 10641201 |

Alternative components

| | | |
|---|---|---|
| . | terminal board (PTC, 6.3mm) | 15162500 |

**Model**

Designation **HTK12AA** **220-240V/50Hz** **Conf. 1** Sales code: **16111600**

**Optimization + standard conditions** R600a, 220V/50Hz, RSIR, static, VDE

| | Evaporating pressure (saturation temperature) pe | Condensing pressure (saturation temperature) pc | Return gas temp. RGT | Liquid temp. Tliq | Cooling capacity [W] | [Btu/h] | [kcal/h] | COP [W/W] | EER [Btu/Wh] | [kcal/Wh] | Power consumption P1 [W] | Current consumption I [A] | Ref. mass flow ṁ [kg/h] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [°C] | -23 | 54 | 32 | 32 | 197,8 | 675 | 170,2 | 1,63 | 5,58 | 1,41 | 121,0 | 0,87 | 2,12 | **ASHRAE LBP** |
| [°F] | -10 | 130 | 90 | 90 | | | | | | | | | | |
| [°C] | -25 | 55 | 32 | 55 | 149,0 | 509 | 128,2 | 1,28 | 4,39 | 1,11 | 116,0 | 0,85 | 1,94 | **cecomaf LBP** |
| [°F] | -13 | 131 | 90 | 131 | | | | | | | | | | |
| [°C] | -35 | 40 | 20 | 40 | 96,0 | 328 | 82,6 | 1,15 | 3,94 | 0,99 | 83,3 | 0,72 | 1,17 | **EN12900 LBP** |
| [°F] | -31 | 104 | 68 | 104 | | | | | | | | | | |
| [°C] | -23 | 49 | 4,4 | 49 | 159,2 | 544 | 137,0 | 1,34 | 4,59 | 1,16 | 118,5 | 0,86 | 2,33 | **ARI540 LBP** |
| [°F] | -10 | 120 | 40 | 120 | | | | | | | | | | |
| [°C] | -23 | 41 | 32 | 32 | 207,3 | 708 | 178,4 | 1,81 | 6,17 | 1,55 | 114,8 | 0,84 | 2,22 | **AHAM LBP** |
| [°F] | -10 | 105 | 90 | 90 | | | | | | | | | | |
| [°C] | -35 | 45 | 32 | 45 | 93,3 | 319 | 80,3 | 1,11 | 3,79 | 0,95 | 84,1 | 0,71 | 1,11 | **opt** |
| [°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 | 93,3 | 319 | 80,3 | 1,11 | 3,79 | 0,95 | 84,1 | 0,71 | 1,11 |
| cond. pressure | -30 | -22 | 128,6 | 439 | 110,7 | 1,31 | 4,48 | 1,13 | 98,1 | 0,77 | 1,53 |
| pc= 45/113 | -25 | -13 | 169,4 | 578 | 145,8 | 1,51 | 5,16 | 1,30 | 112,1 | 0,83 | 2,02 |
| return gas temp. | -23 | -10 | 184,4 | 630 | 158,7 | 1,58 | 5,39 | 1,36 | 116,8 | 0,85 | 2,20 |
| RGT= 32/90 | -20 | -4 | 215,5 | 736 | 185,5 | 1,71 | 5,84 | 1,47 | 126,0 | 0,89 | 2,57 |
| liquid temp | -15 | 5 | 267,0 | 912 | 229,8 | 1,91 | 6,52 | 1,64 | 139,8 | 0,96 | 3,19 |
| Tliq= 45/113 | -5 | 23 | 385,7 | 1317 | 331,9 | 2,31 | 7,89 | 1,99 | 166,9 | 1,10 | 4,63 |
| [°C / °F] | -35 | -31 | 81,6 | 279 | 70,3 | 0,96 | 3,28 | 0,83 | 84,9 | 0,69 | 1,06 |
| cond. pressure | -30 | -22 | 112,5 | 384 | 96,8 | 1,12 | 3,83 | 0,97 | 100,3 | 0,76 | 1,47 |
| pc= 55/131 | -25 | -13 | 149,0 | 509 | 128,2 | 1,28 | 4,39 | 1,11 | 116,0 | 0,85 | 1,94 |
| return gas temp | -23 | -10 | 162,7 | 556 | 140,0 | 1,34 | 4,57 | 1,15 | 121,4 | 0,87 | 2,12 |
| RGT= 32/90 | -20 | -4 | 191,0 | 652 | 164,4 | 1,45 | 4,94 | 1,24 | 132,1 | 0,93 | 2,50 |
| liquid temp | -15 | 5 | 238,4 | 814 | 205,2 | 1,60 | 5,48 | 1,38 | 148,5 | 1,01 | 3,12 |
| Tliq= 55/131 | -5 | 23 | 349,4 | 1193 | 300,7 | 1,92 | 6,55 | 1,65 | 182,3 | 1,18 | 4,60 |

**Model**

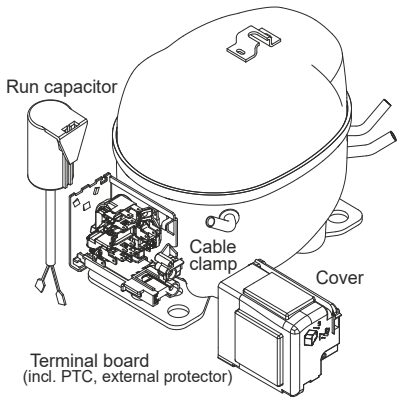
| Designation | | | | |
|---|---|---|---|---|
| | **HTK12AA** | **220-240V/50Hz** | **Conf. 2** | Sales code: **16111600** |

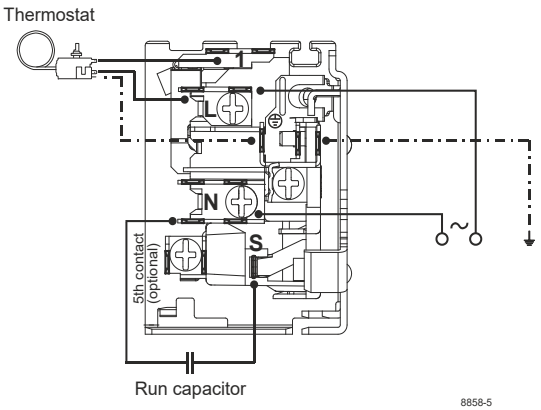
**Configuration**

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

**Electrical accessories / wiring diagram**

**RSCR**

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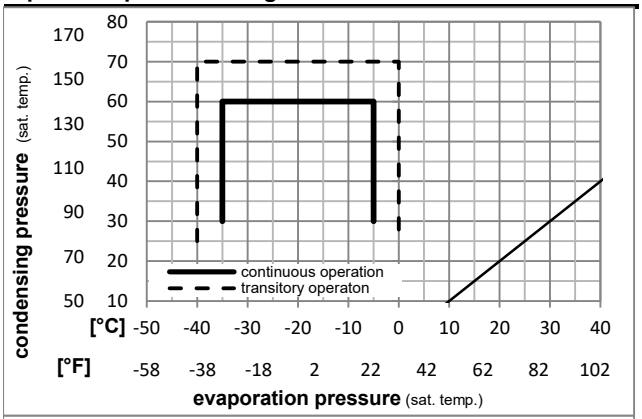


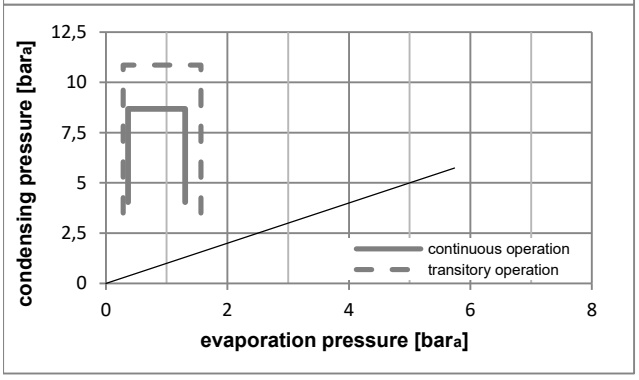


Components

| | | |
|---|---|---|
| . | terminal board (PTC, 4.8mm) | 15164000 |
| . | run capacitor (4µF, 4.8mm) | 10693001 |
| b | cover terminal board | 10636401 |
| . | cable clamp | 16058100 |
| . | screw - uni6954 | 10636000 |
| . | screw - uni6954 | 10636200 |

Alternative components

| | | |
|---|---|---|
| . | terminal board (PTC, 6.3mm) | 15162500 |
| . | run capacitor (4µF, 6.3mm) | 15186801 |
| . | screw uni en iso 4757 | 10641201 |

**Model**

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**Optimization + standard conditions** R600a, 220V/50Hz, RSCR, static, VDE

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [°C] | -23 | 54 | 32 | 32 | 197,8 | 675 | 170,2 | 1,70 | 5,81 | 1,46 | 116,3 | 0,65 | 2,12 | **ASHRAE LBP** |
| [°F] | -10 | 130 | 90 | 90 | | | | | | | | | | |
| [°C] | -25 | 55 | 32 | 55 | 149,0 | 509 | 128,2 | 1,34 | 4,57 | 1,15 | 111,4 | 0,63 | 1,94 | **cecomaf LBP** |
| [°F] | -13 | 131 | 90 | 131 | | | | | | | | | | |
| [°C] | -35 | 40 | 20 | 40 | 96,0 | 328 | 82,6 | 1,22 | 4,17 | 1,05 | 78,6 | 0,54 | 1,17 | **EN12900 LBP** |
| [°F] | -31 | 104 | 68 | 104 | | | | | | | | | | |
| [°C] | -23 | 49 | 4,4 | 49 | 159,2 | 544 | 137,0 | 1,40 | 4,78 | 1,20 | 113,8 | 0,64 | 2,33 | **ARI540 LBP** |
| [°F] | -10 | 120 | 40 | 120 | | | | | | | | | | |
| [°C] | -23 | 41 | 32 | 32 | 207,3 | 708 | 178,4 | 1,88 | 6,41 | 1,62 | 110,4 | 0,63 | 2,22 | **AHAM LBP** |
| [°F] | -10 | 105 | 90 | 90 | | | | | | | | | | |
| [°C] | -35 | 45 | 32 | 45 | 93,3 | 319 | 80,3 | 1,18 | 4,02 | 1,01 | 79,2 | 0,53 | 1,11 | **opt** |
| [°F] | -31 | 113 | 90 | 113 | | | | | | | | | | |

**Performance tables** R600a, 220V/50Hz, RSCR, static, VDE

| | pe [°C] | pe [°F] | Cooling capacity [W] | Cooling capacity [Btu/h] | Cooling capacity [kcal/h] | COP [W/W] | EER [Btu/Wh] | EER [kcal/Wh] | P1 [W] | I [A] | m [kg/h] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| [°C / °F] | -35 | -31 | 93,3 | 319 | 80,3 | 1,18 | 4,02 | 1,01 | 79,2 | 0,53 | 1,11 |
| cond. pressure | -30 | -22 | 128,6 | 439 | 110,7 | 1,38 | 4,70 | 1,19 | 93,4 | 0,57 | 1,53 |
| pc= 45/113 | -25 | -13 | 169,4 | 578 | 145,8 | 1,58 | 5,38 | 1,36 | 107,5 | 0,62 | 2,02 |
| return gas temp. | -23 | -10 | 184,4 | 630 | 158,7 | 1,64 | 5,61 | 1,41 | 112,2 | 0,64 | 2,20 |
| RGT= 32/90 | -20 | -4 | 215,5 | 736 | 185,5 | 1,77 | 6,06 | 1,53 | 121,4 | 0,67 | 2,57 |
| liquid temp | -15 | 5 | 267,0 | 912 | 229,8 | 1,97 | 6,74 | 1,70 | 135,2 | 0,72 | 3,19 |
| Tliq= 45/113 | -5 | 23 | 385,7 | 1317 | 331,9 | 2,38 | 8,12 | 2,05 | 162,1 | 0,82 | 4,63 |
| [°C / °F] | -35 | -31 | 81,6 | 279 | 70,3 | 1,01 | 3,45 | 0,87 | 80,8 | 0,51 | 1,06 |
| cond. pressure | -30 | -22 | 112,5 | 384 | 96,8 | 1,17 | 4,01 | 1,01 | 95,9 | 0,57 | 1,47 |
| pc= 55/131 | -25 | -13 | 149,0 | 509 | 128,2 | 1,34 | 4,57 | 1,15 | 111,4 | 0,63 | 1,94 |
| return gas temp | -23 | -10 | 162,7 | 556 | 140,0 | 1,39 | 4,76 | 1,20 | 116,7 | 0,65 | 2,12 |
| RGT= 32/90 | -20 | -4 | 191,0 | 652 | 164,4 | 1,50 | 5,13 | 1,29 | 127,1 | 0,69 | 2,50 |
| liquid temp | -15 | 5 | 238,4 | 814 | 205,2 | 1,67 | 5,69 | 1,43 | 143,1 | 0,75 | 3,12 |
| Tliq= 55/131 | -5 | 23 | 349,4 | 1193 | 300,7 | 1,99 | 6,80 | 1,71 | 175,4 | 0,88 | 4,60 |