

Product Data Sheet

HKK70AA K3

Revision 1

(Variant Code B)

1 Application

| Application | Refrigerant | Expansion Device | Cooling Type |
|-------------|-------------|------------------|--------------|
| LBP | R600a | Capillary | Static |

1.1 Application Conditions

| | | |
|---|------|-----|
| Max. Ambient temp. ¹ | [°C] | 43 |
| Max. Steady discharge temp. ² | [°C] | 120 |
| Max. Peak discharge temp. ^{2,5} | [°C] | 135 |
| Max. Steady condensing temp. ³ | [°C] | 60 |
| Max. Peak condensing temp. ^{3,5} | [°C] | 70 |
| Max. Winding temp. ⁴ | [°C] | 130 |

¹ ...static

² ...measured on discharge tube, 50 mm from the shell

³ ...measured in the middle of condenser

⁴ ...calculated out of the measured difference of resistance

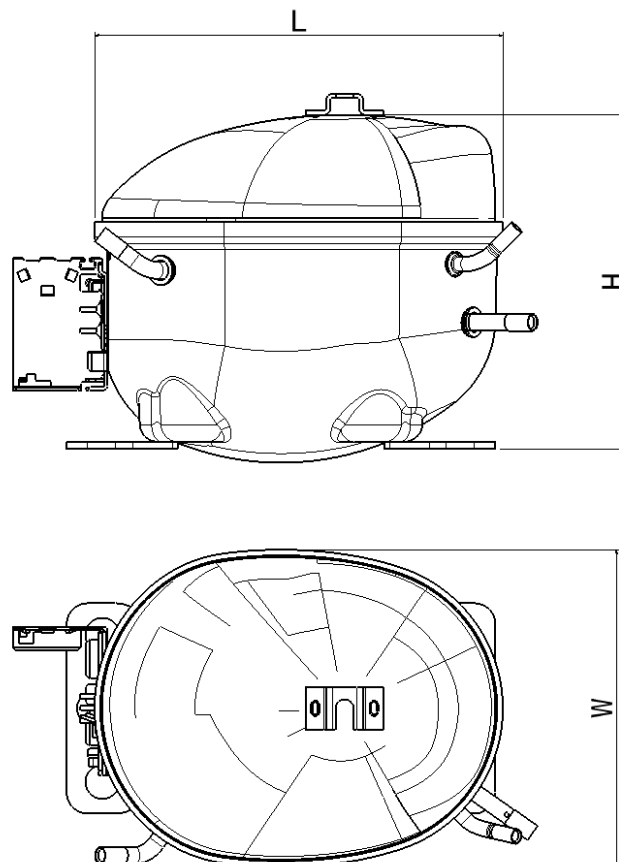
⁵ ...max 5% of lifetime

Variant code according to Label; see General Product Documentation

2 Mechanical Data

| | | |
|-------------------------------|-------------------------|-------------|
| Displacement | [cm³] | 6,6 |
| Net Weight¹ | [kg] | 8,1 |
| Oil Type | | mineral |
| Oil Charge | [ml] | 165 |
| Oil Viscosity | [cst] | 5 |
| Suction muffler | | Semi direct |
| Free Gas Volume | [cm³] | 1520 |
| Length L | [mm] | 237,5 |
| Width W | [mm] | 151,5 |
| Height H | [mm] | 159 |

¹...Compressor without accessories



3 Electrical Data

| | | |
|--|------|-----------|
| Power supply | [V] | 220 - 240 |
| Voltage range ¹ | [V] | 187 - 264 |
| Frequency | [Hz] | 50 |
| Phase | [ph] | 1 |
| Motor type | | RSCR |
| Locked rotor current @ steady state | [A] | 2,6 |
| Max. Locked rotor current / measured after 4 sec | [A] | 6,9 / 2,9 |
| Main wind. Resistance @ 25°C | [Ω] | 32,8 |
| Start wind. Resistance @ 25°C | [Ω] | 32,4 |

¹...Operating and starting (starting condition @ +43°C windings temperature, 3,5 barA equalized pressure)

All data measured according to EN 60335

3.1 Electrical Component Data

| | | |
|-----------------|------|------|
| Terminal board | | ECC |
| Starting device | Code | K100 |
| PTC | Type | H |
| Run Capacitor | [μF] | 4 |

3.2 Motor Protector

| | | |
|-----------------|------------|-----------|
| Motor Protector | BDG | Wanbao |
| Type | AE 25 FJ x | B43 115 x |
| Code | F6 | MW |

4 Performance Data

4.1 Cooling Capacity, COP and Input Power

Performance Table Cooling Capacity @ ASHRAE / EN12900 (CECOMAF); 220V, 50Hz; [W]:

| Evap. temp. [°C] | | -35 | -30 | -25 | -23,3 | -20 | -15 | -10 | |
|--------------------|------------------------|-----|------|------|-------|-------|-------|-------|-------|
| Condensing temp. @ | ASHRAE [°C] | 40 | 59,4 | 84,5 | 114,3 | 125,5 | 148,9 | 188,1 | 232,0 |
| | | 45 | 57,5 | 82,0 | 111,5 | 122,7 | 146,0 | 185,5 | 230,0 |
| | | 50 | 55,6 | 79,5 | 108,7 | 119,8 | 143,2 | 183,0 | 228,0 |
| | | 55 | 53,7 | 77,0 | 105,9 | 117,0 | 141,0 | 180,4 | 226,0 |
| | | 60 | 51,8 | 74,5 | 103,1 | 114,2 | 137,5 | 177,8 | 224,0 |
| | EN12900 (CECOMAF) [°C] | C55 | 44,0 | 63,0 | 87,0 | 97,0 | 116,0 | 148,0 | 186,0 |

Performance Table COP with RC @ ASHRAE / EN12900 (CECOMAF); 220V, 50Hz; [W/W]:

| Evap. temp. [°C] | | -35 | -30 | -25 | -23,3 | -20 | -15 | -10 | |
|--------------------|------------------------|-----|------|------|-------|------|------|------|------|
| Condensing temp. @ | ASHRAE [°C] | 40 | 1,36 | 1,66 | 1,96 | 2,06 | 2,26 | 2,56 | 2,86 |
| | | 45 | 1,30 | 1,58 | 1,86 | 1,96 | 2,14 | 2,42 | 2,70 |
| | | 50 | 1,24 | 1,50 | 1,76 | 1,85 | 2,02 | 2,28 | 2,54 |
| | | 55 | 1,19 | 1,43 | 1,66 | 1,75 | 1,90 | 2,14 | 2,38 |
| | | 60 | 1,13 | 1,35 | 1,57 | 1,64 | 1,78 | 2,00 | 2,22 |
| | EN12900 (CECOMAF) [°C] | C55 | 0,98 | 1,18 | 1,38 | 1,45 | 1,57 | 1,77 | 1,96 |

Performance Table Input Power with RC @ ASHRAE / EN12900 (CECOMAF); 220V, 50Hz; [W]:

| Evap. temp. [°C] | | -35 | -30 | -25 | -23,3 | -20 | -15 | -10 | |
|--------------------|------------------------|-----|------|------|-------|------|------|------|-------|
| Condensing temp. @ | ASHRAE [°C] | 40 | 43,8 | 51,0 | 58,4 | 61,0 | 65,9 | 73,5 | 81,1 |
| | | 45 | 44,2 | 51,9 | 60,0 | 62,8 | 68,3 | 76,7 | 85,2 |
| | | 50 | 44,6 | 52,9 | 61,7 | 64,8 | 70,9 | 80,2 | 89,6 |
| | | 55 | 45,1 | 54,0 | 63,6 | 67,0 | 73,8 | 84,3 | 95,0 |
| | | 60 | 45,7 | 55,2 | 65,8 | 69,6 | 77,1 | 88,9 | 101,0 |
| | EN12900 (CECOMAF) [°C] | C55 | 45,1 | 54,0 | 63,6 | 67,0 | 73,8 | 84,3 | 95,0 |

| Test Conditions @ 220V/50Hz | | ASHRAE | EN12900 (CECOMAF) |
|-----------------------------|------|--------|-------------------|
| Evaporating temp. | [°C] | -23,3 | -25 |
| Condensing temp. | [°C] | 55 | 55 |
| Sub cooling temp. | [°C] | 32 | 55 |
| Suction temp. | [°C] | 32 | 32 |
| Ambient temp. | [°C] | 32 | 32 |

Tolerance Range:

COP ± 5%
Cooling Capacity ± 5%

4.2 Rated current @ 55°C condensing temperature

| | | | | |
|-------------------------|------|------|-------|------|
| Evaporating temperature | [°C] | -30 | -23,3 | -10 |
| Rated current with RC | [A] | 0,25 | 0,31 | 0,42 |

5 Reliability Tests

| | |
|------------------------------------|--------|
| High Temperature CECOMAF GT4 – 002 | passed |
| Wear CECOMAF GT4 – 003 | passed |
| On – Off CECOMAF GT4 – 004 | passed |
| Transport test ASTM D4728 | passed |