

# Product Data Sheet

## HMK70AA K3

### Revision 1

(Variant Code 3)

## 1 Application

Application	Refrigerant	Expansion Device	Cooling Type
LBP	R600a	Capillary	Static

### 1.1 Application Conditions

Max. Ambient temp. <sup>1</sup>	[°C]	43
Max. Steady discharge temp. <sup>2</sup>	[°C]	120
Max. Peak discharge temp. <sup>2, 5</sup>	[°C]	135
Max. Steady condensing temp. <sup>3</sup>	[°C]	60
Max. Peak condensing temp. <sup>3, 5</sup>	[°C]	70
Max. Winding temp. <sup>4</sup>	[°C]	130

<sup>1</sup>...static

<sup>2</sup>...measured on discharge tube, 50 mm from the shell

<sup>3</sup>...measured in the middle of condenser

<sup>4</sup>...calculated out of the measured difference of resistance

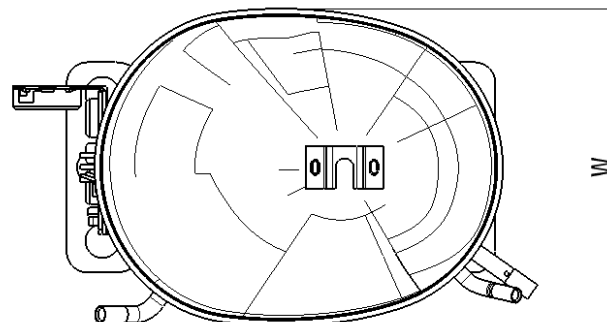
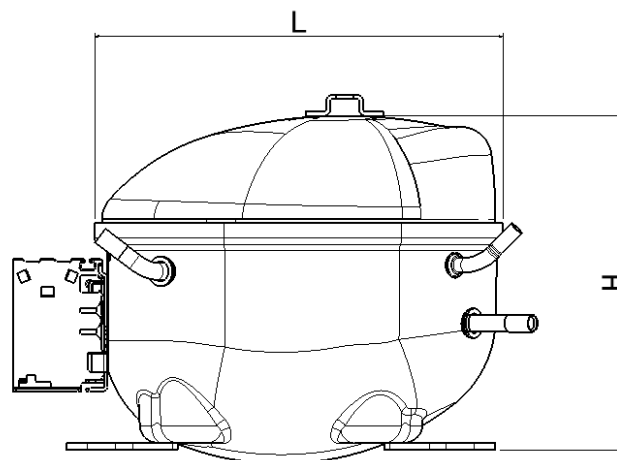
<sup>5</sup>...max 5% of lifetime

Variant code according to Label; see General Product Documentation

## 2 Mechanical Data

<b>Displacement</b>	<b>[cm<sup>3</sup>]</b>	6,6
<b>Net Weight<sup>1</sup></b>	<b>[kg]</b>	7,2
<b>Oil Type</b>		mineral
<b>Oil Charge</b>	<b>[ml]</b>	165
<b>Oil Viscosity</b>	<b>[cst]</b>	5
<b>Suction muffler</b>		Semi direct
<b>Free Gas Volume</b>	<b>[cm<sup>3</sup>]</b>	1600
<b>Length L</b>	<b>[mm]</b>	237,5
<b>Width W</b>	<b>[mm]</b>	151,5
<b>Height H</b>	<b>[mm]</b>	159

<sup>1</sup>...Compressor without accessories



### 3 Electrical Data

Power supply	[V]	220 - 240
Voltage range <sup>1</sup>	[V]	187 - 264
Frequency	[Hz]	50
Phase	[ph]	1
Motor type		RSIR
Locked rotor current @ steady state	[A]	2,7
Max. Locked rotor current / measured after 4 sec	[A]	6,5 / 3,0
Main wind. Resistance @ 25°C	[Ω]	38,1
Start wind. Resistance @ 25°C	[Ω]	13,0

<sup>1</sup>...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	A
Run Capacitor	[μF]	-

#### 3.2 Motor Protector

Motor Protector	BDG
Type	AE 24 FW x
Code	F4

### 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	68	89	115	125	147	183	226
		45	64	85	112	122	144	180	222
		50	60	82	109	119	141	177	219
		55	56	78	106	116	137	174	216
		60	52	75	102	113	134	171	212
	EN12900 (CECOMAF) [°C]	C55	46	65	87	95	113	143	177

Performance Table COP without RC @ ASHRAE / EN12900 (CECOMAF); 220V, 50Hz; [W/W]:

Evap. temp. [°C]		-35	-30	-25	-23,3	-20	-15	-10	
Condensing temp. @	ASHRAE [°C]	40	1,21	1,44	1,64	1,74	1,88	2,10	2,33
		45	1,16	1,35	1,58	1,65	1,80	2,00	2,20
		50	1,11	1,30	1,49	1,57	1,70	1,90	2,11
		55	1,06	1,22	1,43	1,49	1,61	1,81	2,02
		60	0,98	1,17	1,34	1,41	1,52	1,73	1,93
	EN12900 (CECOMAF) [°C]	C55	0,87	1,02	1,18	1,22	1,33	1,49	1,65

Performance Table Input Power without RC @ ASHRAE / EN12900 (CECOMAF); 220V, 50Hz; [W]:

Evap. temp. [°C]		-35	-30	-25	-23,3	-20	-15	-10	
Condensing temp. @	ASHRAE [°C]	40	56	62	70	72	78	87	97
		45	55	63	71	74	80	90	101
		50	54	63	73	76	83	93	104
		55	53	64	74	78	85	96	107
		60	53	64	76	80	88	99	110
	EN12900 (CECOMAF) [°C]	C55	53	64	74	78	85	96	107

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 without RC	[A]	0,48	0,52	0,63

## 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