

# Product Data Sheet

## HTK80AA 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

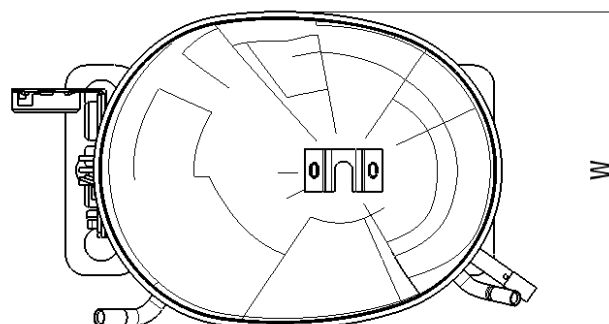
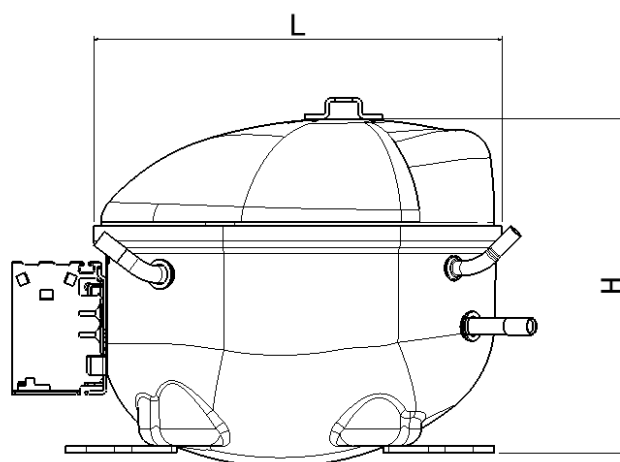
<sup>5</sup> ...max 5% of lifetime

Variant code according to Label; see General Product Documentation

## 2 Mechanical Data

<b>Displacement</b>	<b>[cm<sup>3</sup>]</b>	8,1
<b>Net Weight<sup>1</sup></b>	<b>[kg]</b>	7,9
<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>	1500
<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/RSCR
Locked rotor current @ steady state	[A]	3,4
Max. Locked rotor current / measured after 4 sec	[A]	12,3 / 4,3
Main wind. Resistance @ 25°C	[Ω]	26,4
Start wind. Resistance @ 25°C	[Ω]	16,7

<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]	2,5; 3; 4

#### 3.2 Motor Protector

Motor Protector	BDG	Wanbao
Type	AE 15 BU x	B64 120 x
Code	FC	MD

### 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	71,2	99,5	133,1	145,7	172,0	216,1	265,5
		45	69,7	97,0	130,0	142,5	168,6	213,0	263,0
		50	68,2	94,5	126,9	139,2	165,3	209,9	260,5
		55	66,8	92,0	123,0	136,0	162,0	206,7	258,0
		60	65,3	89,5	120,6	132,8	158,6	203,6	255,5
	EN12900 (CECOMAF) [°C]	C55	55,0	76,0	102,0	113,0	133,0	170,0	212,0

Performance Table COP without/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	1,16 / 1,20	1,48 / 1,53	1,80 / 1,86	1,91 / 1,98	2,12 / 2,19	2,44 / 2,52	2,76 / 2,86
		45	1,13 / 1,17	1,42 / 1,47	1,71 / 1,77	1,81 / 1,87	2,00 / 2,07	2,29 / 2,37	2,58 / 2,67
		50	1,10 / 1,14	1,36 / 1,41	1,62 / 1,68	1,71 / 1,77	1,88 / 1,95	2,14 / 2,22	2,40 / 2,48
		55	1,06 / 1,11	1,30 / 1,35	1,52 / 1,58	1,61 / 1,66	1,76 / 1,82	1,99 / 2,06	2,23 / 2,30
		60	1,03 / 1,08	1,23 / 1,28	1,44 / 1,49	1,51 / 1,56	1,64 / 1,70	1,85 / 1,91	2,05 / 2,11
	EN12900 (CECOMAF) [°C]	C55	0,87 / 0,91	1,07 / 1,12	1,26 / 1,31	1,34 / 1,39	1,45 / 1,50	1,64 / 1,69	1,83 / 1,89

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

Evap. temp. [°C]		-35	-30	-25	-23,3	-20	-15	-10	
Condensing temp. @	ASHRAE [°C]	40	61,1 / 59,3	67,1 / 65,0	73,9 / 71,5	76,3 / 73,8	81,1 / 78,4	88,6 / 85,6	96,3 / 93,0
		45	61,7 / 59,6	68,3 / 66,0	76,0 / 73,4	78,8 / 76,1	84,3 / 81,5	93,0 / 89,9	101,9 / 98,5
		50	62,3 / 59,9	69,6 / 67,1	78,3 / 75,6	81,5 / 78,7	87,9 / 84,9	98,0 / 94,7	108,4 / 104,9
		55	62,9 / 60,2	71,0 / 68,3	81,0 / 78,1	84,6 / 81,7	92,0 / 88,9	103,7 / 100,3	115,8 / 112,3
		60	63,8 / 60,6	72,6 / 69,7	83,9 / 80,9	88,1 / 85,0	96,6 / 93,4	110,3 / 106,9	124,6 / 121,0
	EN12900 (CECOMAF) [°C]	C55	62,9 / 60,2	71,0 / 68,3	81,0 / 78,1	84,6 / 81,7	92,0 / 88,9	103,7 / 100,3	115,8 / 112,3

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]	0,33	0,39	0,53
Rated current without RC	[A]	0,48	0,53	0,64

## **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