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# **Product Data Sheet**

## **HTK12AA K3**

### **Revision 1**

(Variant Code B)

## **1 Application**

<b>Application</b>	<b>Refrigerant</b>	<b>Expansion Device</b>	<b>Cooling Type</b>
LBP	R600a	Capillary	Static

### **1.1 Application Conditions**

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

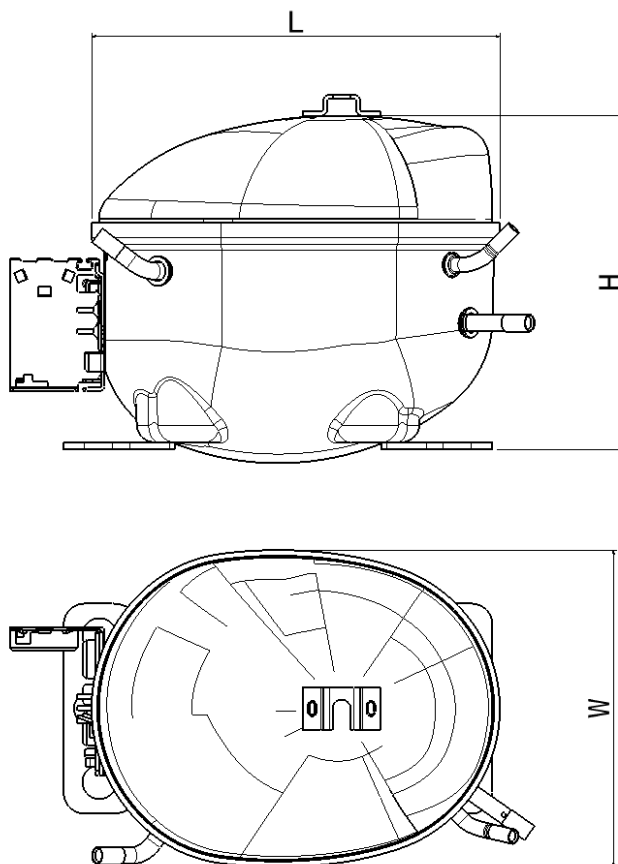
<sup>5</sup>...max 5% of lifetime

Variant code according to Label; see General Product Documentation

### 2 Mechanical Data

Displacement	[cm <sup>3</sup> ]	11,1
Net Weight <sup>1</sup>	[kg]	8,4
Oil Type		mineral
Oil Charge	[ml]	165
Oil Viscosity	[cst]	5
Suction		Semi direct
Free Gas Volume	[cm <sup>3</sup> ]	1600
Length L	[mm]	194,2
Width W	[mm]	151,5
Height H	[mm]	167

<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]	4,8
Max. Locked rotor current / measured after 4 sec	[A]	17,6 / 5,7
Main wind. Resistance @ 25°C	[Ω]	19,3
Start wind. Resistance @ 25°C	[Ω]	13,2

<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]	4; 5

#### 3.2 Motor Protector

Motor Protector	BDG	Senbao
Type	AE 15 BU x	B 80 120 x
Code	FC	MH

### 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	105,9	146,0	191,7	208,5	243,0	300,0	362,5
		45	103,7	143,0	188,3	205,0	239,5	296,8	360,0
		50	101,5	140,0	184,8	201,5	236,0	293,6	357,6
		55	99,4	137,0	181,4	198,0	232,5	291,0	355,0
		60	97,2	134,0	177,9	194,5	229,0	287,2	352,5
	EN12900 (CECOMAF) [°C]	C55	82,0	113,0	149,0	163,0	191,0	239,0	292,0

**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	1,27 / 1,35	1,51 / 1,58	1,74 / 1,81	1,82 / 1,89	1,98 / 2,05	2,21 / 2,28	2,45 / 2,51
		45	1,24 / 1,31	1,46 / 1,53	1,68 / 1,75	1,76 / 1,83	1,90 / 1,97	2,13 / 2,20	2,35 / 2,42
		50	1,20 / 1,27	1,41 / 1,48	1,62 / 1,69	1,69 / 1,76	1,83 / 1,90	2,04 / 2,11	2,25 / 2,33
		55	1,17 / 1,23	1,37 / 1,43	1,57 / 1,63	1,64 / 1,70	1,76 / 1,83	1,96 / 2,03	2,15 / 2,23
		60	1,14 / 1,19	1,32 / 1,38	1,50 / 1,57	1,57 / 1,63	1,69 / 1,76	1,87 / 1,95	2,05 / 2,14
	EN12900 (CECOMAF) [°C]	C55	0,97 / 1,02	1,13 / 1,18	1,28 / 1,34	1,34 / 1,40	1,45 / 1,50	1,61 / 1,67	1,77 / 1,83

**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	83,3 / 78,7	96,9 / 92,4	110,0/105,7	114,4/110,2	122,9/118,7	135,6/131,5	148,1/144,2
		45	83,8 / 79,3	97,9 / 93,5	111,9/107,4	116,6/112,1	125,7/121,3	139,5/135,1	153,2/148,8
		50	84,4 / 80,0	99,1 / 94,6	113,9/109,3	118,9/114,3	128,8/124,0	143,8/138,9	158,8/153,7
		55	84,9 / 80,7	100,3 / 95,7	116,0/111,2	121,0/116,6	132,1/127,0	148,4/143,0	164,9/159,2
		60	85,6 / 81,5	101,5 / 97,0	118,3/113,2	124,2/119,0	135,7/130,2	153,5/147,5	171,5/165,0
	EN12900 (CECOMAF) [°C]	C55	84,9 / 80,7	100,3 / 95,7	116,0/111,2	121,0/116,6	132,1/127,0	148,4/143,0	164,9/159,2



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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  $\pm 5\%$   
Cooling Capacity  $\pm 5\%$

### 4.2 Rated current @ 55°C condensing temperature

Evaporating temperature	[°C]	-30	-23,3	-10
Rated current with RC	[A]	0,60	0,65	0,78
Rated current without RC	[A]	0,84	0,87	0,97

## 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