
Product Data Sheet

HKK12AA 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

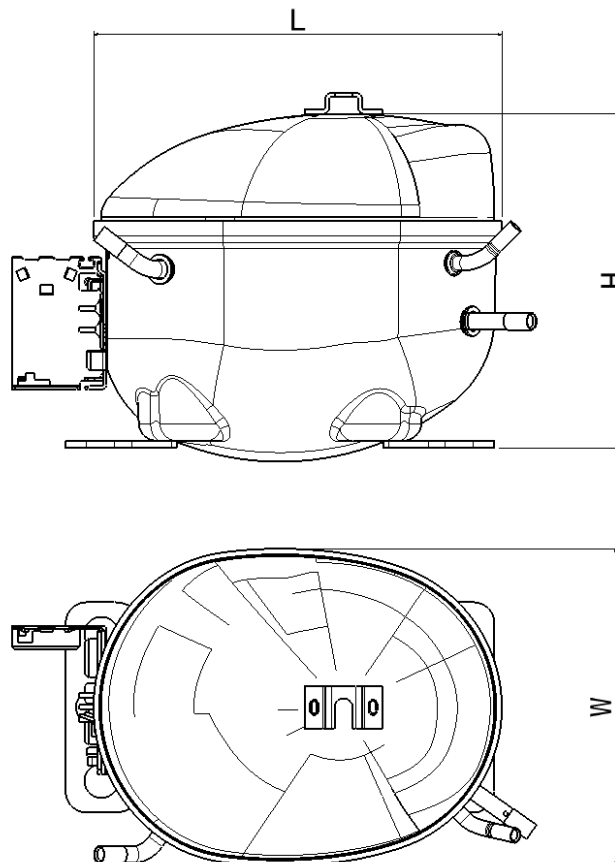
⁵...max 5% of lifetime

Variant code according to Label; see General Product Documentation

2 Mechanical Data

Displacement	[cm³]	11,1
Net Weight¹	[kg]	8,9
Oil Type		mineral
Oil Charge	[ml]	165
Oil Viscosity	[cst]	5
Suction muffler		Semi direct
Free Gas Volume	[cm³]	1540
Length L	[mm]	194,2
Width W	[mm]	151,5
Height H	[mm]	167

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]	5,8
Max. Locked rotor current / measured after 4 sec	[A]	11,8 / 6,1
Main wind. Resistance @ 25°C	[Ω]	18,9
Start wind. Resistance @ 25°C	[Ω]	14,1

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	A
Run Capacitor	[μF]	4

3.2 Motor Protector

Motor Protector	BDG	Senbao
Type	AE 72 FU x	B68 120 x
Code	FP	M4

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	107,8	144,5	187,8	204,0	237,8	294,5	357,8
		45	105,0	142,0	185,7	202,0	236,0	293,1	356,9
		50	102,2	139,5	183,5	200,0	234,3	291,7	355,9
		55	99,4	137,0	181,4	198,0	232,5	290,4	355,0
		60	96,6	134,5	179,2	196,0	230,7	289,0	354,1
	EN12900 (CECOMAF) [°C]	C55	82,0	113,0	150,0	165,0	192,0	239,0	293,0

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	1,48	1,73	1,99	2,07	2,24	2,49	2,75
		45	1,42	1,66	1,90	1,98	2,14	2,38	2,61
		50	1,36	1,59	1,81	1,89	2,04	2,26	2,48
		55	1,30	1,51	1,72	1,80	1,93	2,14	2,35
		60	1,25	1,44	1,64	1,70	1,83	2,03	2,22
	EN12900 (CECOMAF) [°C]	C55	1,08	1,25	1,42	1,49	1,60	1,77	1,94

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	72,8	83,3	94,5	98,5	106,2	118,1	130,3
		45	73,9	85,5	97,8	102,0	110,4	123,4	136,5
		50	75,0	87,9	101,3	106,0	115,1	129,1	143,3
		55	76,2	90,5	105,2	110,3	120,3	135,0	150,9
		60	77,6	93,4	109,6	115,2	126,0	142,7	159,4
	EN12900 (CECOMAF) [°C]	C55	76,2	90,5	105,2	110,3	120,3	135,0	150,9



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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	± 5%
Cooling Capacity	± 5%

4.2 Rated current @ 55°C condensing temperature

Evaporating temperature	[°C]	-30	-23,3	-10
Rated current with RC	[A]	0,44	0,53	0,73

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