

Product Data Sheet

HMK80AA

Revision 3

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	[°C]	135
Max. Steady condensing temp. ³	[°C]	60
Max. Peak condensing temp. ³	[°C]	70
Max. Winding temp. ⁴	[°C]	130

¹...static

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

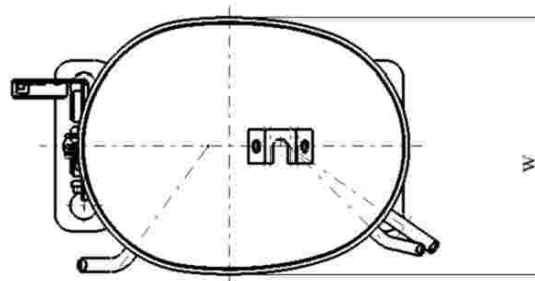
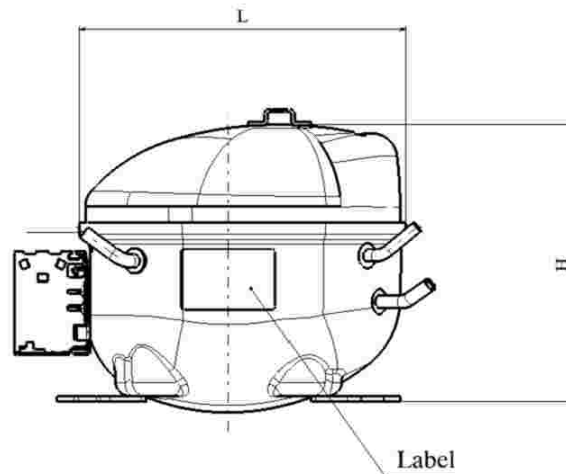
³...measured in the middle of condenser

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

2 Mechanical Data

Displacement	[cm ³]	8,1
Net Weight ¹	[kg]	7,6
Oil Type		mineral
Oil Charge	[ml]	170
Oil Viscosity	[cst]	7
Suction muffler		Semi direct
Free Gas Volume	[cm ³]	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		RSIR
Rated current / Locked rotor current @ steady state	[A]	0,75 / 3,5
Max. Locked rotor current measured after 4 sec	[A]	12.8 / 4.6
Main wind. Resistance @ 25°C	[Ω]	29,5
Start wind. Resistance @ 25°C	[Ω]	18,6

¹...@ +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	Wanbao	Sensata
Type	AE18FU x	B62-110 x	4TM222NFBYY x
Code	F5	M3	6C

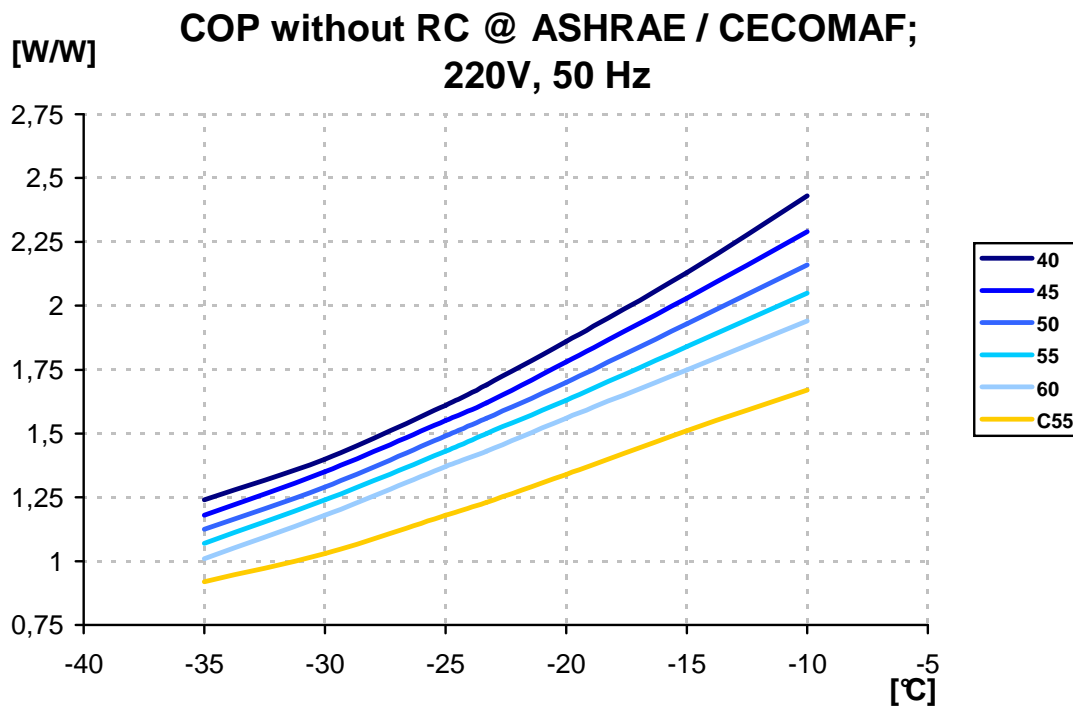
4 Performance Data

4.1 COP, Cooling Capacity and Input Power according to EN 12900

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

Evap. temp. [°C]		-35	-30	-25	-23,3	-20	-15	-10	
Condensing temp. @	ASHRAE [°C]	40	1,24	1,40	1,61	1,69	1,86	2,13	2,43
		45	1,18	1,35	1,55	1,62	1,78	2,03	2,29
		50	1,13	1,29	1,49	1,56	1,70	1,93	2,16
		55	1,07	1,24	1,43	1,50	1,63	1,84	2,05
		60	1,01	1,18	1,37	1,43	1,56	1,75	1,94
	CECOMAF [°C]	C55	0,92	1,03	1,18	1,23	1,34	1,51	1,67

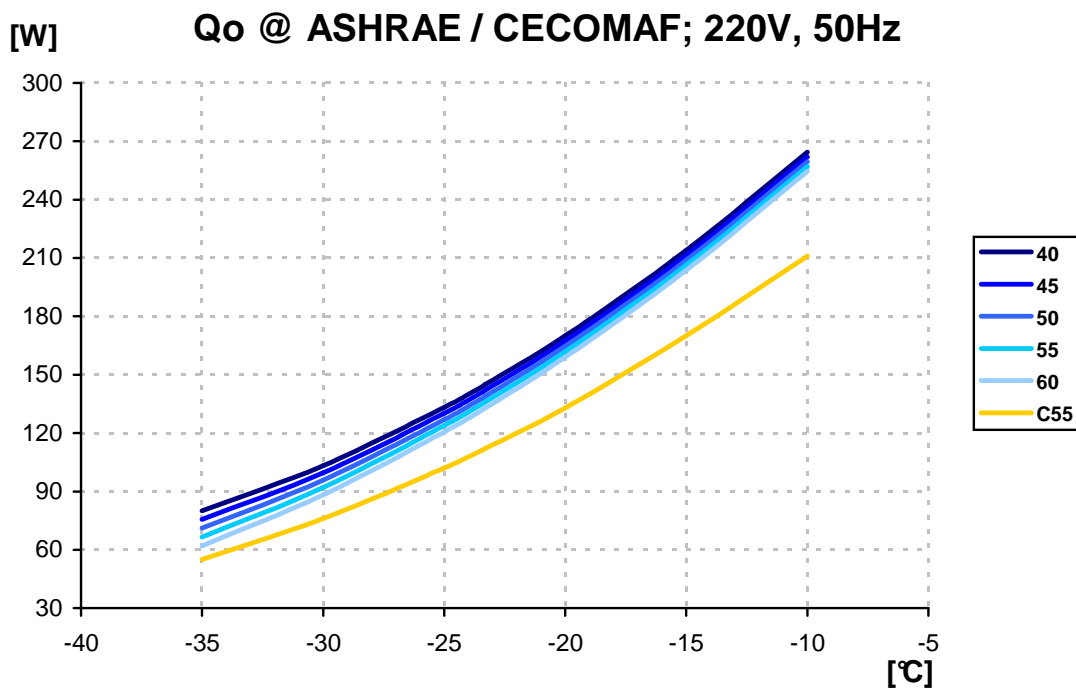
Performance Graph COP without RC:



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

Evap. temp. [°C]		-35	-30	-25	-23,3	-20	-15	-10	
Condensing temp. @	ASHRAE [°C]	40	80,1	103,3	133,2	145,0	170,1	213,9	264,5
		45	75,6	99,5	130,1	142,0	167,4	211,3	262,0
		50	71,1	95,8	126,9	139,0	164,6	208,8	259,5
		55	66,6	92,0	123,8	136,0	161,8	206,3	257,0
		60	62,0	88,2	120,6	133,0	159,1	203,7	254,5
	CECOMAF [°C]	C55	55,0	76,0	102,0	112,0	133,0	170,0	211,0

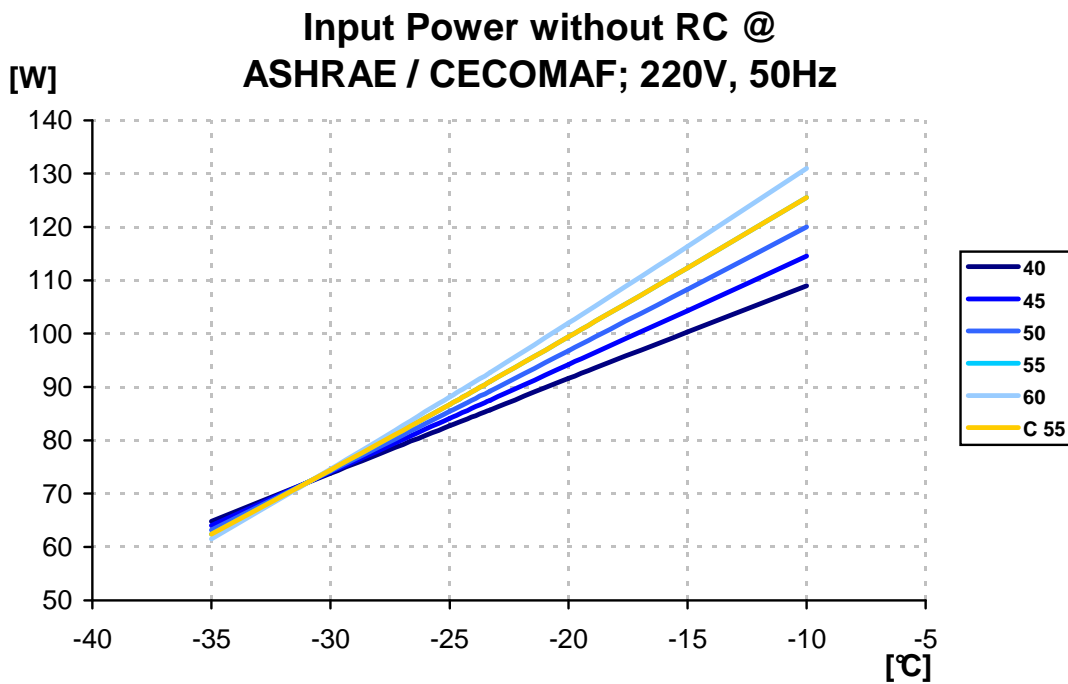
Performance Graph Cooling Capacity:



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

Evap. temp. [°C]		-35	-30	-25	-23,3	-20	-15	-10	
Condensing temp. @	ASHRAE [°C]	40	64,8	73,8	82,7	85,7	91,6	100,3	109,0
		45	64,0	74,0	84,1	87,5	94,2	104,3	114,5
		50	63,2	74,2	85,4	89,2	96,8	108,3	120,0
		55	62,4	74,4	86,7	91,0	99,4	112,3	125,5
		60	61,5	74,6	88,1	92,7	102,0	116,3	131,0
	CECOMAF [°C]	C55	62,4	74,4	86,7	91,0	99,4	112,3	125,5

Performance Graph Input Power without RC:





Test Conditions @ 220V/50Hz		ASHRAE	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 +/-7%
Cooling Capacity +/-5%

4.2 Rated current @ 55°C condensing temperature

Evaporating temperature	[°C]	-30	-23,3	-10
Rated current without RC	[A]	0,57	0,62	0,74