

Model

Designation	HMK80AA	220-240V/50Hz ~	Sales code:	CDO00165
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Compressor design

Oil type	Mineral	Refrigerant(s)	R600a
Oil viscosity	7,2cSt	Displacement	8,1cm ³ / 0,49cu.in
Oil quantity	162cm ³ / 5,5fl.oz	Compressors on pallet	100
Refr. charge - tech. limit	150g / 5,3oz		
Free gas volume comp.	1520cm ³ / 51,4fl.oz		
Weight	7,6kg / 16,8lbs		
Motor protection	external		
Winding resistance main	29,4Ω (at 25°C)		
Winding resistance aux	16,5Ω (at 25°C)		
Max. winding temp.	130°C / 266°F		
Max. discharge temp.	120°C / 248°F		



General - Configurations with HMK80AA

Conf. 1

Motorconfiguration	RSIR
Power supply (nominal)	220-240V/50Hz
Number of phases	1
Voltage range	187-264V
Approvals	VDE
Starting torque	LST
Note	- / -

Applications with HMK80AA

Conf. 1

Refrigerant	R600a
Application	LBP
System cooling	static
Hot gas defrost	-/-
Long interval pull down	-/-

Electrical data - Configurations with HMK80AA

Conf. 1

Starting device type	PTC
Run capacitor	-/-
Start capacitor	-/-
LRA (locked rotor amps / 4s)	3,55A
RLA (rated load amps / 1s)	0,8A
Cut in current	10A
IP class	21

Model

Designation

HMK80AA

220-240V/50Hz ~

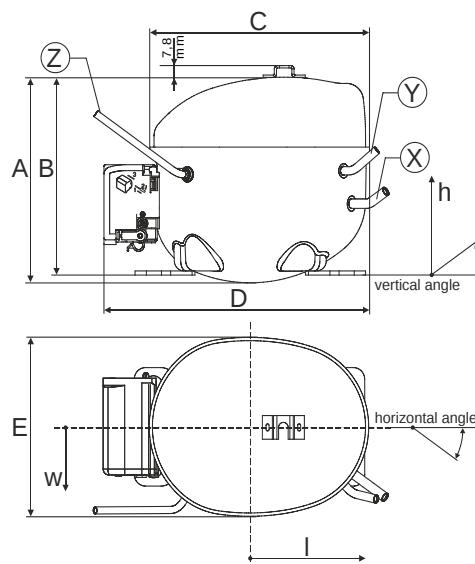
Sales code:

CDO00165

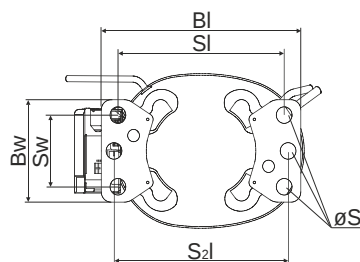
Compressor dimensions

Housing	A Height	166mm / 6,54in
	B Height	159mm / 6,26in
	C Length shell	194mm / 7,64in
	D Length w. cover	238mm / 9,37in
	E Width	151mm / 5,94in

Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 6,1-6,2	øi 5,1-5,2	øo 5,92-6,08
(i:inside, o:outside) [in]	øi 0,24-0,24	øi 0,2-0,2	øo 0,23-0,24
Material	copper	copper	copper
Horizontal angle ±2°	45°	13°	0°
Vertical angle ±2°	30°	40°	145°
Position l/h/w [mm]	120/72/62	112/106/62	-140/136/70
[in]	4,7/2,8/2,4	4,4/4,2/2,4	-5,5/5,4/2,8
Straight tube l. [mm]	14	14	75
[in]	0,5	0,5	3

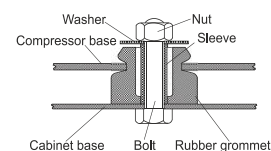


Compressor fixation

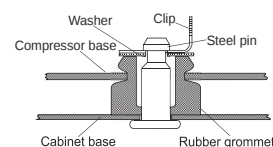


Baseplate	[mm]	[inch]
BI	204	8.03
BW	100	3.94
Small holes	[mm]	[inch]
SI	170	6.7
SW	70	2.76
S2l	178	7
øS	ø 16	ø 0.63

Bolt joint



Snap-on



Mounting accessories

'4ZN' with rubber grommet

'4ZN' with rubber grommet and sleeve for M6

Bolt joint kit

'4ZN' with Snap on kit

order code

772N

768N

4ZN + 118-1917 (18)

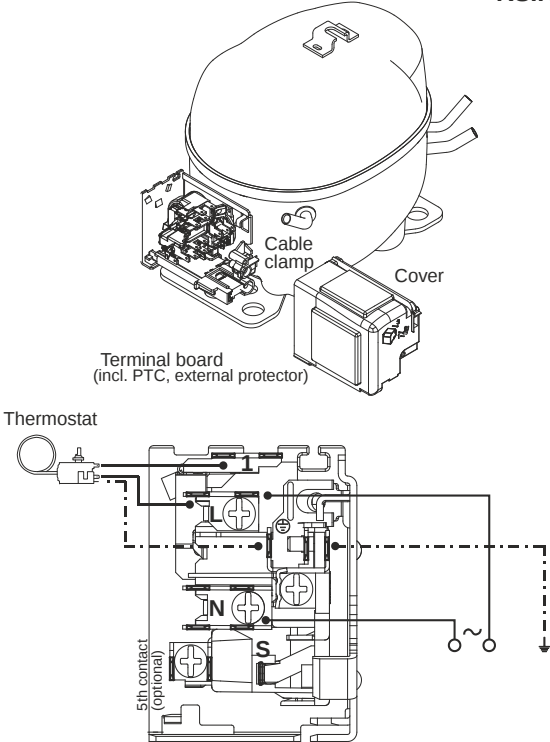
776N

Application notes

Various options of housing are possible (dip-tray fixture) - please contact Nidec-Sales.

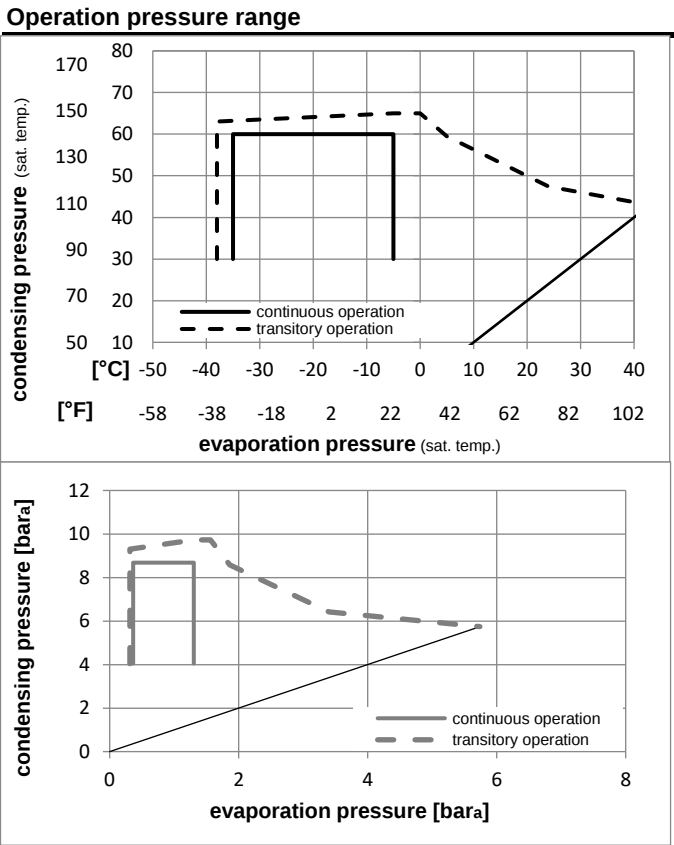
Various options of connectors are possible - please contact Nidec-Sales.

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Configuration		Electrical accessories / wiring diagram		
Motorconfiguration	RSIR	RSIR 		
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R600a			
Application	LBP			
Voltage range	187-264V			
Starting torque	LST			
Approvals	VDE			

Ambient temperatures / system cooling	
Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	static	n/a	n/a
43°C / 110°F	static	n/a	n/a



Components	
terminal board (PTC,4.8mm,K100)	ZA FP
motor protector BDG AE 72 FU x	AE72FUX
cover + clamp + screws (Nr. 4ZN)	16168000
evaporation tray (optional)	113188_

Alternative components	
terminal board (PTC,6.3mm,K100)	DA FP
motor protector BDG AE 72 FU x	AE72FUX
cable clamp (screws not included)	113410_
cover	157595_
evaporation tray (optional)	113188_

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Optimization + standard conditions

220-240V/50Hz 1~, RSIR, static, VDE

Evaporating pressure (saturation temperature)													
Condensing pressure (saturation temperature)													
Return gas temp.													
Liquid temp.													
Cooling capacity													
COP													
EER													
Power consumption													
Current consumption													
Ref. mass flow													
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m
[°C]	-23,3	54,4	32,2	32,2							[W]	[A]	[kg/h]
[°F]	-10	130	90	90	135,9	464	117,0	1,50	5,13	1,29	90,5	0,62	1,46
ASHRAE LBP													
[°C]	-25	55	32	55	101,7	347	87,5	1,18	4,02	1,01	86,5	0,61	1,33
[°F]	-13	131	89,6	131									
cecomaf LBP													
[°C]	-35	40	20	40	72,6	248	62,5	1,12	3,84	0,97	64,6	0,52	0,88
[°F]	-31	104	68	104									
EN12900 LBP													
[°C]	-23,3	48,9	4,44	48,9	109,9	375	94,6	1,24	4,24	1,07	88,6	0,61	1,61
[°F]	-10	120	40	120									
ARI540 LBP													
[°C]	-23,3	40,6	32,2	32,2	144,2	493	124,1	1,68	5,74	1,45	85,8	0,60	1,55
[°F]	-10	105	90	90									
AHAM LBP													
[°C]	-35	45	32	45	68,1	233	58,6	1,07	3,65	0,92	63,8	0,51	0,81
[°F]	-31	113	89,6	113									
opt													

Performance tables

220-240V/50Hz 1~, RSIR, static, VDE

	pe	Cooling capacity			COP			EER			P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]		
[°C / °F]	-35	-31	68,1	233	58,6	1,07	3,65	0,92	63,8	0,51	0,81		
cond. pressure	-30	-22	89,6	306	77,1	1,21	4,14	1,04	73,9	0,55	1,07		
pc= 45/113	-25	-13	117,1	400	100,8	1,40	4,77	1,20	83,9	0,59	1,39		
return gas temp.	-23,3	-10	127,8	437	110,0	1,46	5,00	1,26	87,3	0,61	1,52		
RGT= 32/90	-20	-4	150,7	514	129,7	1,60	5,47	1,38	94,0	0,64	1,80		
liquid temp	-15	5	190,2	650	163,7	1,83	6,24	1,57	104,1	0,69	2,27		
Tliq= 45/113	-5	23	287,3	981	247,3	2,31	7,88	1,99	124,6	0,78	3,45		
[°C / °F]	-35	-31	54,7	187	47,1	0,88	3,01	0,76	62,1	0,49	0,71		
cond. pressure	-30	-22	75,6	258	65,1	1,02	3,48	0,88	74,1	0,55	0,99		
pc= 55/131	-25	-13	101,7	347	87,5	1,18	4,02	1,01	86,5	0,61	1,33		
return gas temp	-23,3	-10	111,7	382	96,2	1,23	4,21	1,06	90,7	0,62	1,46		
RGT= 32/90	-20	-4	132,9	454	114,4	1,34	4,58	1,15	99,1	0,66	1,74		
liquid temp	-15	5	169,4	578	145,8	1,51	5,16	1,30	112,0	0,72	2,22		
Tliq= 55/131	-5	23	257,7	880	221,8	1,86	6,34	1,60	138,8	0,85	3,39		