

Model

Designation	NL7.3MF	220-240V/50Hz 1~	208-230V/60Hz 1~	Sales code:	105G6776
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, , R513A
Oil viscosity	32cSt	Displacement	7,27cm³ / 0,44cu.in
Oil quantity	268cm³ / 9,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	600g / 21,2oz		
Free gas volume comp.	2360cm³ / 79,8fl.oz		
Weight	10kg / 22lbs		
Motor protection	1# internal		
Winding resistance main	8,3Ω (at 25°C)		
Winding resistance aux	11,8Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with NL7.3MF

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSIR	CSIR	CSIR	CSIR
Power supply (nominal)	220-240V/50Hz	208-230V/60Hz	220-240V/50Hz	208-230V/60Hz
Number of phases	1	1	1	1
Voltage range	187-254V	187-254V	187-254V	187-253V
Approvals	CCC, VDE, UL, EAC	CCC, VDE, UL, EAC	CCC, VDE, UL	CCC, VDE, UL
Starting torque	HST	HST	HST	HST
Note	Electrical equipment is included and pre-assembled to compressor.			

Applications with NL7.3MF

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Refrigerant	R134a	R134a	R513A	R513A
Application	MBP	LBP+MBP	MBP	LBP+MBP
System cooling	fan 3m/s	fan 1,5m/s	fan 3m/s	fan 1,5m/s
Hot gas defrost	-/-	-/-	-/-	-/-
Long interval pull down	OK	OK	OK	OK

Electrical data - Configurations with NL7.3MF

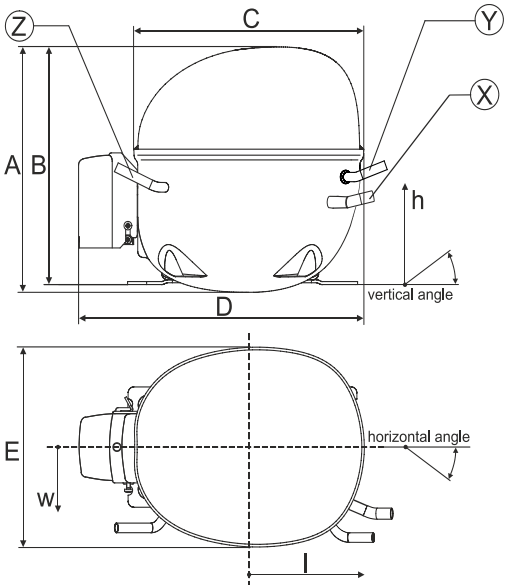
	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	relay	relay	relay	relay
Run capacitor	-/-	-/-	-/-	-/-
Start capacitor	80μF	80μF	80μF	80μF
LRA (locked rotor amps / 4s/ U(N))	10,7A	10,8A	10,7A	10,8A
RLA (rated load amps / 1s/ U(N))	2,1A	1,8A	2,1A	1,8A
Cut in current (U(N))	10,7A	10,8A	10,7A	10,8A

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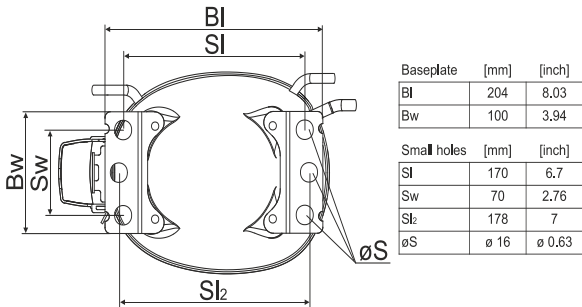
Compressor dimensions

Housing	A Height	197mm / 7,76in
	B Height	191mm / 7,52in
	C Length shell	205mm / 8,07in
	D Length w. cover	254mm / 10in
	E Width	166mm / 6,54in

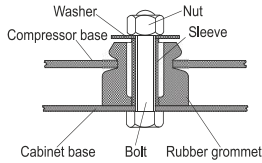
Connectors	Suction	Discharge	Process
	X	Y	Z
Diameter [mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material	copper	copper	copper
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	126/76/78	133/103/54	-107/94/72
	[in]	4,9/3/3,1	5,2/4/2,1
		-4,2/3,7/2,8	
Straight tube l.	[mm]	12	12
	[in]	0,5	0,5



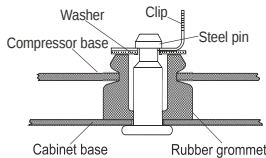
Compressor fixation



Bolt joint



Snap-on



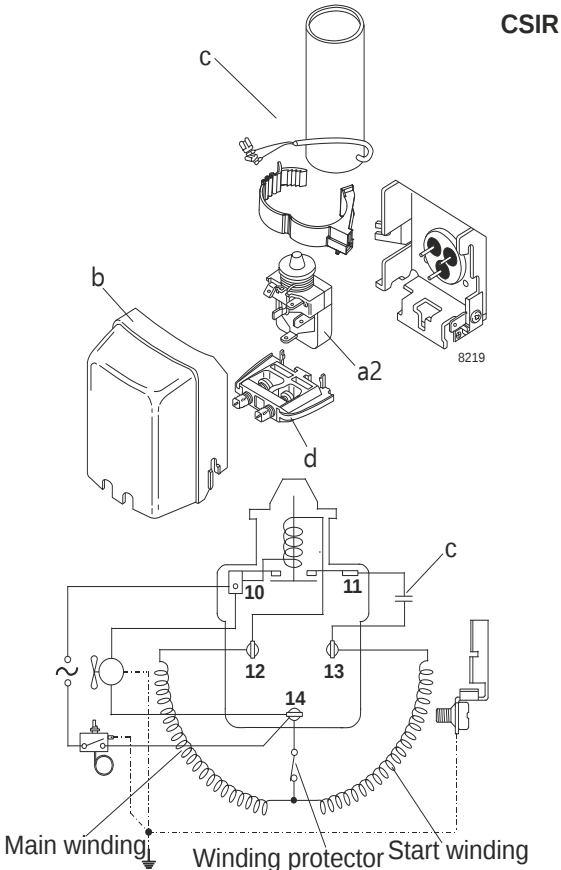
Mounting accessories	one comp.	multi pack
Bolt joint M6 ø16mm	118-1917	118-1918
Bolt joint ø1/4" ø16mm	118-1946	
Snap-on ø7,3 ø16mm	118-1947	118-1919

Application notes

Provision for PE Grounding is located at the PE Stamp on the compressor

F2 for 230-240V 50Hz nominal below -12°C evaporating temp

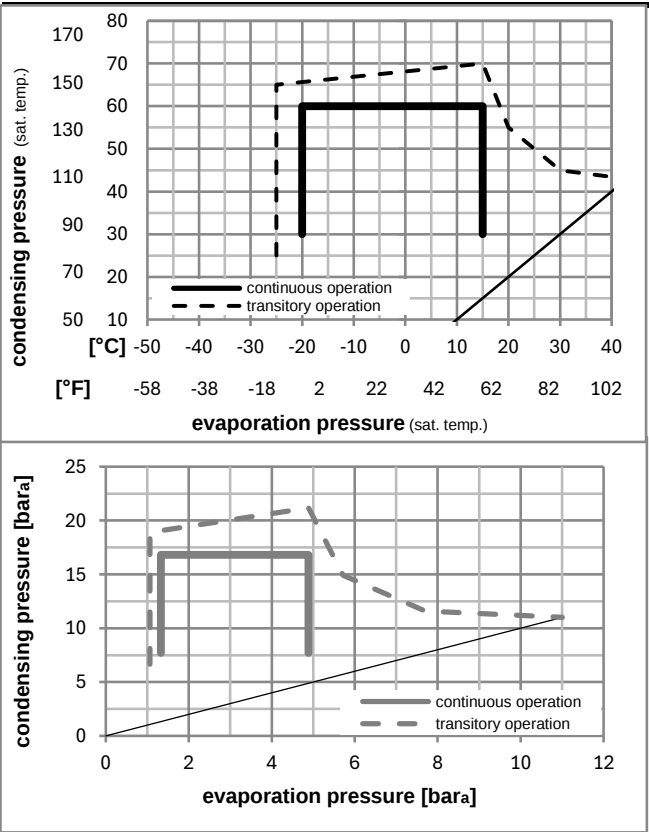
Model					
Designation	NL7.3MF	220-240V/50Hz	Conf. 1	Sales code:	105G6776

Configuration		Electrical accessories / wiring diagram			
Motor configuration	CSIR				
Power supply (nominal)	220-240V/50Hz 1~				
Refrigerant	R134a				
Application	MBP				
Voltage range	187-254V				
Starting torque	HST				
Approvals	CCC				
	VDE				
	UL				
	EAC				

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 1,5m/s

Operation pressure range



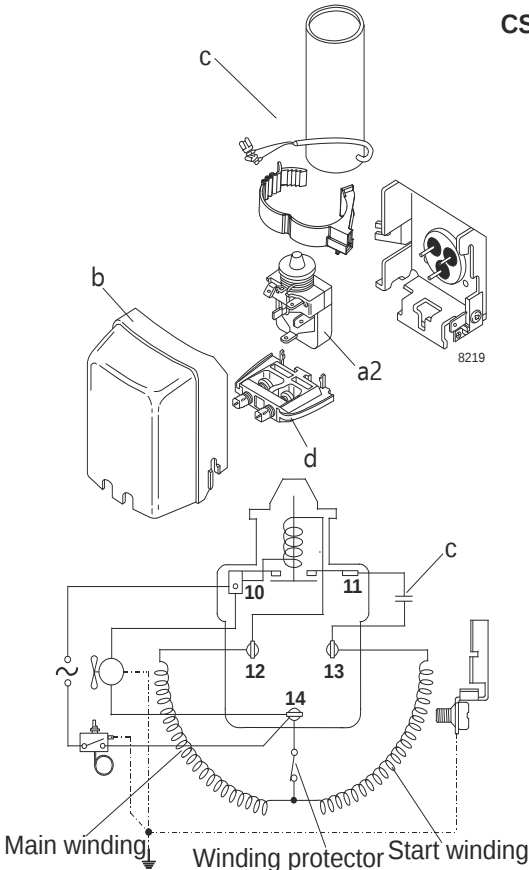
Components (incl. and pre. assembl.)

a2	relay	117U6016
c	start capacitor (80μF)	117U5015
b	plastic cover	103N2011
d	cord relief	103N1010

Model					
Designation	NL7.3MF	220-240V/50Hz	Conf. 1	Sales code:	105G6776
Optimization + standard conditions			R134a, 220V/50Hz, CSIR, fan 1,5m/s, CCC, VDE, UL, EAC		

Evaporating pressure (saturation temperature)														
Condensing pressure (saturation temperature)										Power consumption				
Return gas temp.										Current consumption				
Liquid temp.										Ref. mass flow				
Cooling capacity					COP			EER			P1	I	ṁ	
pe	pc	RGT	Tliq		[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23	54	32	32	181,7	621	156,4	1,09	3,74	0,94	166,1	1,55	3,53	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	131,8	450	113,5	0,83	2,84	0,72	158,6	1,54	3,15	cecomaf LBP
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	86,9	297	74,8	0,74	2,52	0,63	117,9	1,56	1,91	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-7	54	35	46	395,0	1349	340,0	1,64	5,59	1,41	241,4	1,71	8,62	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	304,1	1039	261,7	1,34	4,58	1,15	226,8	1,67	7,35	cecomaf MBP
[°F]	14	131	90	131										
[°C]	-10	45	20	45	347,1	1185	298,7	1,62	5,52	1,39	214,8	1,63	8,12	EN12900 MBP
[°F]	14	113	68	113										

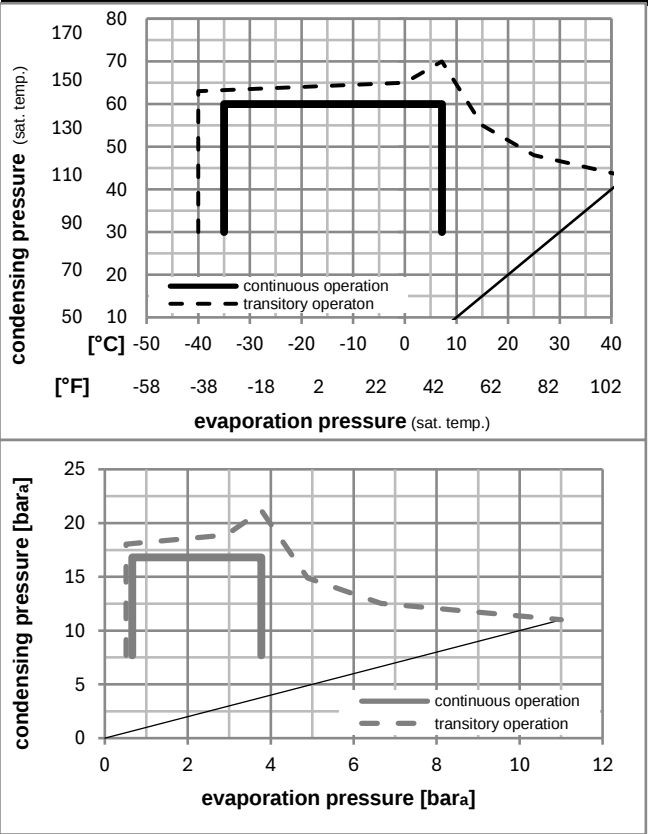
Model					
Designation	NL7.3MF	208-230V/60Hz	Conf. 2	Sales code:	105G6776

Configuration		Electrical accessories / wiring diagram			
Motor configuration	CSIR				
Power supply (nominal)	208-230V/60Hz 1~				
Refrigerant	R134a				
Application	LBP+MBP				
Voltage range	187-254V				
Starting torque	HST				
Approvals	CCC				
	VDE				
	UL				
	EAC				

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 1,5m/s

Operation pressure range



Components (incl. and pre. assembl.)		
a2	relay	117U6016
c	start capacitor (80µF)	117U5015
b	plastic cover	103N2011
d	cord relief	103N1010

Model

Designation **NL7.3MF** **208-230V/60Hz** Conf. 2 Sales code: **105G6776**

Optimization + standard conditions

R134a, 220V/60Hz, CSIR, fan 1,5m/s, CCC, VDE, UL, EAC

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]	[°F]									[W]	[A]	[kg/h]		
-23	54	32	32	219,9	751	189,3	1,19	4,06	1,02	184,9	1,34	4,27	ASHRAE LBP	
-10	130	90	90											
-25	55	32	55	159,4	544	137,2	0,92	3,13	0,79	173,8	1,30	3,81	cecomaf LBP	
-13	131	90	131											
-35	40	20	40	117,2	400	100,9	0,92	3,15	0,79	127,0	1,19	2,57	EN12900 LBP	
-31	104	68	104											
-7	54	35	46	471,3	1610	405,6	1,59	5,42	1,37	297,0	1,75	10,28	ASHRAE MBP	
20	130	95	115											
-10	55	32	55	363,0	1240	312,4	1,32	4,51	1,14	275,0	1,66	8,78	cecomaf MBP	
14	131	90	131											
-10	45	20	45	417,0	1424	358,9	1,60	5,47	1,38	260,6	1,61	9,76	EN12900 MBP	
14	113	68	113											

Performance tables

R134a, 220V/60Hz, CSIR, fan 1,5m/s, CCC, VDE, UL, EAC

	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	105,3	360	90,7	0,86	2,93	0,74	122,9	1,16	2,27		
cond. pressure	-25	-13	200,2	684	172,3	1,13	3,88	0,98	176,4	1,32	4,34		
pc= 45/113	-15	5	340,7	1164	293,2	1,47	5,01	1,26	232,2	1,50	7,43		
return gas temp.	-10	14	432,6	1478	372,3	1,66	5,67	1,43	260,6	1,61	9,47		
RGT= 32/90	-5	23	541,4	1849	465,9	1,87	6,40	1,61	289,1	1,72	11,91		
liquid temp	0	32	668,9	2284	575,6	2,11	7,19	1,81	317,6	1,85	14,79		
Tliq= 45/113	7,2	45	888,9	3036	765,0	2,48	8,47	2,14	358,3	2,04	19,86		
[°C / °F]	-35	-31	73,1	250	62,9	0,67	2,27	0,57	109,8	1,11	1,74		
cond. pressure	-25	-13	159,4	544	137,2	0,92	3,13	0,79	173,8	1,30	3,81		
pc= 55/131	-15	5	282,8	966	243,4	1,17	4,01	1,01	240,8	1,53	6,81		
return gas temp	-10	14	363,0	1240	312,4	1,32	4,51	1,14	275,0	1,66	8,78		
RGT= 32/90	-5	23	458,0	1564	394,2	1,48	5,05	1,27	309,6	1,80	11,13		
liquid temp	0	32	569,6	1945	490,2	1,65	5,65	1,42	344,3	1,94	13,93		
Tliq= 55/131	7,2	45	763,1	2606	656,7	1,93	6,61	1,67	394,4	2,16	18,87		

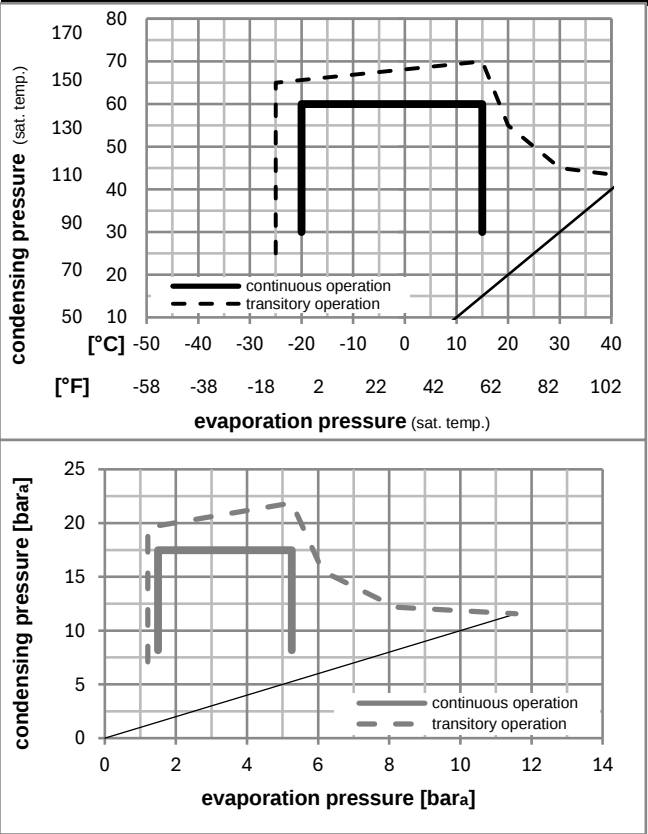
Model					
Designation	NL7.3MF	220-240V/50Hz	Conf. 3	Sales code:	105G6776

Configuration		Electrical accessories / wiring diagram			
Motor configuration	CSIR	CSIR			
Power supply (nominal)	220-240V/50Hz 1~				
Refrigerant	R513A				
Application	MBP				
Voltage range	187-254V				
Starting torque	HST				
Approvals	CCC				
	VDE				
	UL				

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 1,5m/s

Operation pressure range



Components (incl. and pre. assembl.)		
a2	relay	117U6016
c	start capacitor (80µF)	117U5015
b	plastic cover	103N2011
d	cord relief	103N1010

Model					
Designation	NL7.3MF	220-240V/50Hz	Conf. 3	Sales code:	105G6776
Optimization + standard conditions			R513A, 220V/50Hz, CSIR, fan 1,5m/s, CCC, VDE, UL		

	Evaporating pressure (saturation temperature)										Condensing pressure (saturation temperature)				Power consumption		
	Return gas temp.										Current consumption						
	Liquid temp.																
	Cooling capacity										COP	EER	P1	I	ṁ		
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]				
[°C]	-23	54	32	32	202,5	692	174,3	1,13	3,86	0,97	179,2	1,55	4,36	ASHRAE LBP			
[°F]	-10	130	90	90													
[°C]	-25	55	32	55	143,2	489	123,2	0,83	2,85	0,72	171,6	1,53	3,92	cecomaf LBP			
[°F]	-13	131	90	131													
[°C]	-35	40	20	40	98,4	336	84,7	0,77	2,64	0,66	127,4	1,41	2,43	EN12900 LBP			
[°F]	-31	104	68	104													
[°C]	-7	54	35	46	415,5	1419	357,6	1,63	5,57	1,40	254,9	1,76	10,18	ASHRAE MBP			
[°F]	20	130	95	115													
[°C]	-10	55	32	55	316,3	1080	272,2	1,32	4,49	1,13	240,5	1,72	8,75	cecomaf MBP			
[°F]	14	131	90	131													
[°C]	-10	45	20	45	363,4	1241	312,8	1,60	5,47	1,38	227,0	1,68	9,63	EN12900 MBP			
[°F]	14	113	68	113													

Performance tables										R513A, 220V/50Hz, CSIR, fan 1,5m/s, CCC, VDE, UL			
	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]	-20	-4	232,3	793	199,9	1,24		4,22	1,06	187,9		1,58	5,67
cond. pressure	-15	5	299,8	1024	258,0	1,45		4,94	1,24	207,4		1,63	7,35
pc= 45/113	-10	14	380,0	1298	327,1	1,67		5,72	1,44	227,0		1,68	9,34
return gas temp.	-5	23	474,4	1620	408,3	1,92		6,56	1,65	247,0		1,74	11,71
RGT= 32/90	0	32	584,4	1996	503,0	2,18		7,46	1,88	267,7		1,79	14,50
liquid temp	5	41	711,7	2431	612,5	2,46		8,39	2,11	289,6		1,85	17,75
Tliq= 45/113	15	59	1023,9	3497	881,2	3,03		10,33	2,60	338,4		1,98	25,91
[°C / °F]	-20	-4	191,3	653	164,6	0,98		3,35	0,84	194,9		1,59	5,25
cond. pressure	-15	5	248,5	849	213,9	1,14		3,90	0,98	217,8		1,66	6,84
pc= 55/131	-10	14	316,3	1080	272,2	1,32		4,49	1,13	240,5		1,72	8,75
return gas temp	-5	23	396,3	1354	341,1	1,50		5,14	1,29	263,5		1,78	11,01
RGT= 32/90	0	32	490,0	1674	421,7	1,71		5,83	1,47	287,1		1,84	13,68
liquid temp	5	41	598,9	2045	515,4	1,92		6,56	1,65	311,7		1,91	16,83
Tliq= 55/131	15	59	868,3	2966	747,3	2,38		8,12	2,05	365,3		2,05	24,80

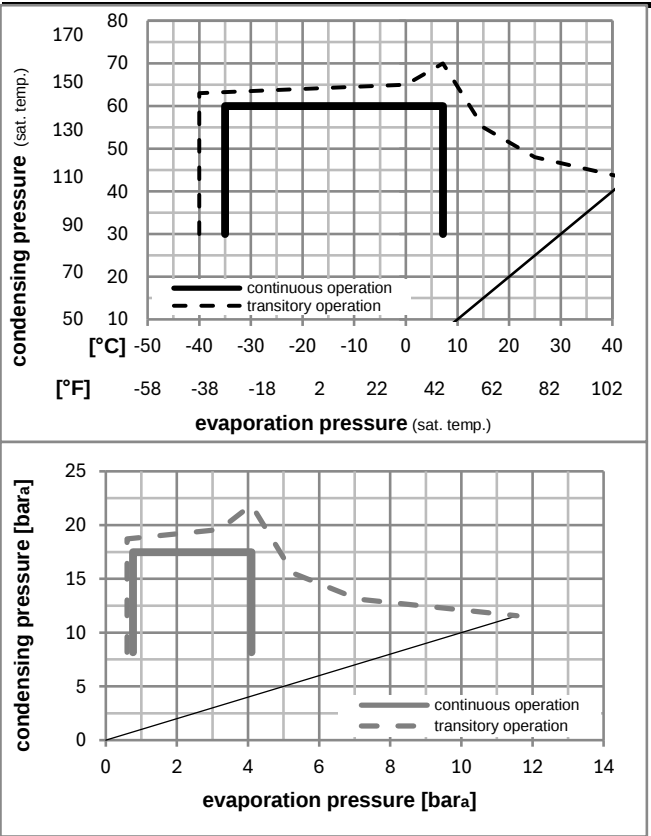
Model					
Designation	NL7.3MF	208-230V/60Hz	Conf. 4	Sales code:	105G6776

Configuration		Electrical accessories / wiring diagram			
Motor configuration	CSIR	CSIR			
Power supply (nominal)	208-230V/60Hz 1~				
Refrigerant	R513A				
Application	LBP+MBP				
Voltage range	187-253V				
Starting torque	HST				
Approvals	CCC				
	VDE				
	UL				

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 1,5m/s

Operation pressure range



Components (incl. and pre. assembl.)		
a2	relay	117U6016
c	start capacitor (80μF)	117U5015
b	plastic cover	103N2011
d	cord relief	103N1010

Model

Designation **NL7.3MF** **208-230V/60Hz** Conf. 4 Sales code: **105G6776**

Optimization + standard conditions

R513A, 220V/60Hz, CSIR, fan 1,5m/s, CCC, VDE, UL

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]										[W]	[A]	[kg/h]		
[°F]	-23	54	32	32	245,0	837	210,8	1,22	4,15	1,05	201,6	1,39	5,27	ASHRAE LBP
	-10	130	90	90										
[°C]	-25	55	32	55	173,1	591	149,0	0,91	3,11	0,78	190,2	1,35	4,74	cecomaf LBP
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	132,5	453	114,0	0,95	3,23	0,81	140,2	1,15	3,28	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-7	54	35	46	495,7	1693	426,6	1,57	5,36	1,35	315,6	1,84	12,14	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	377,5	1289	324,9	1,29	4,39	1,11	293,6	1,75	10,44	cecomaf MBP
[°F]	14	131	90	131										
[°C]	-10	45	20	45	436,6	1491	375,7	1,57	5,38	1,35	277,3	1,69	11,57	EN12900 MBP
[°F]	14	113	68	113										

Performance tables

R513A, 220V/60Hz, CSIR, fan 1,5m/s, CCC, VDE, UL

	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	120,6	412	103,8	0,88	3,02	0,76	136,3	1,14	2,93
cond. pressure	-25	-13	219,1	748	188,6	1,14	3,90	0,98	191,7	1,35	5,34
pc= 45/113	-15	5	363,2	1240	312,6	1,46	4,99	1,26	248,6	1,58	8,90
return gas temp.	-10	14	456,5	1559	392,9	1,65	5,62	1,42	277,3	1,69	11,22
RGT= 32/90	-5	23	566,3	1934	487,4	1,85	6,32	1,59	306,0	1,80	13,98
liquid temp	0	32	694,2	2371	597,5	2,08	7,09	1,79	334,4	1,91	17,22
Tliq= 45/113	7,2	45	913,8	3121	786,4	2,44	8,33	2,10	374,8	2,07	22,86
[°C / °F]	-35	-31	84,9	290	73,1	0,69	2,34	0,59	123,7	1,09	2,32
cond. pressure	-25	-13	173,1	591	149,0	0,91	3,11	0,78	190,2	1,35	4,74
pc= 55/131	-15	5	297,5	1016	256,0	1,15	3,93	0,99	258,8	1,61	8,19
return gas temp	-10	14	377,5	1289	324,9	1,29	4,39	1,11	293,6	1,75	10,44
RGT= 32/90	-5	23	471,7	1611	406,0	1,44	4,90	1,24	328,5	1,89	13,10
liquid temp	0	32	581,7	1987	500,6	1,60	5,47	1,38	363,3	2,02	16,25
Tliq= 55/131	7,2	45	771,4	2634	663,9	1,87	6,38	1,61	413,1	2,22	21,75