Model
NL7.3MF

Sales code:
105G6773

Compressor Data

Refrigerant(s)	**R134a / R513A**
Refr. charge - tech. limit	**600g / 21.16oz**
Weight	**10.00 kg / 22.05lbs**
Displacement	**7.27 cm3 / 0.44cu.in**
Compressors on pallet	**80**

General – Configurations With NL7.3MF

–	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSIR	CSIR	CSIR	CSIR
Power supply (nominal)	220-240 V/50 Hz	208-230 V/60 Hz	220-240 V/50 Hz	208-230 V/60 Hz
Number of phases	1	1	1	1
Voltage range	187-254 V	187-254 V	187-254 V	187-253 V
Approvals	VDE, UL, CCC, EAC	VDE, UL, CCC, EAC	VDE, UL	VDE, UL
Starting torque	HST	HST	HST	HST
Refrigerant	R134a	R134a	R513A	R513A
Application	MBP	LBP+MBP	MBP	LBP+MBP
Long interval pull down	OK	OK	OK	OK

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor
- CSIR strongly recommended for 60 Hz
- F2 for 230-240 V 50 Hz nominal below -12 °C evaporating temp

Model
NL7.3MF

Sales code:
105G6773

Compressor Design

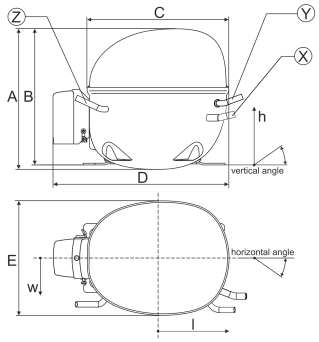
Oil type	**POE**	Winding resistance main	**8.3 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**11.8 Ohm**
Oil quantity	**268 / 9.06fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

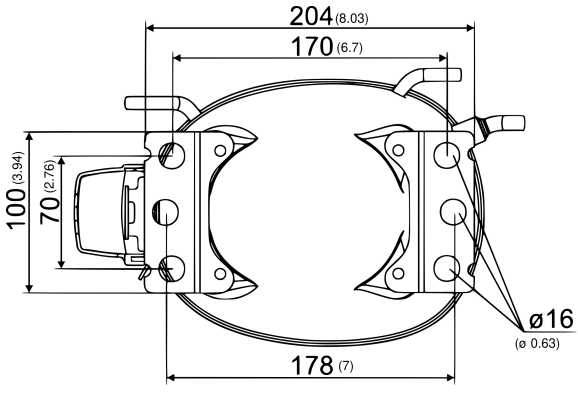
A Height	**197mm / 7.76in**
B Height	**191mm / 7.52in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



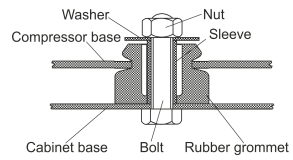
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 9.61–9.79 / 0.38–0.39in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in	-107/93.5/72 / -4.21/3.68/2.83in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

Mounting Accessories

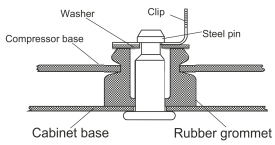


Dimensions in mm [in]

Bolt joint



Snap-on



	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

Model
NL7.3MF Configuration 1

Sales code:
105G6773

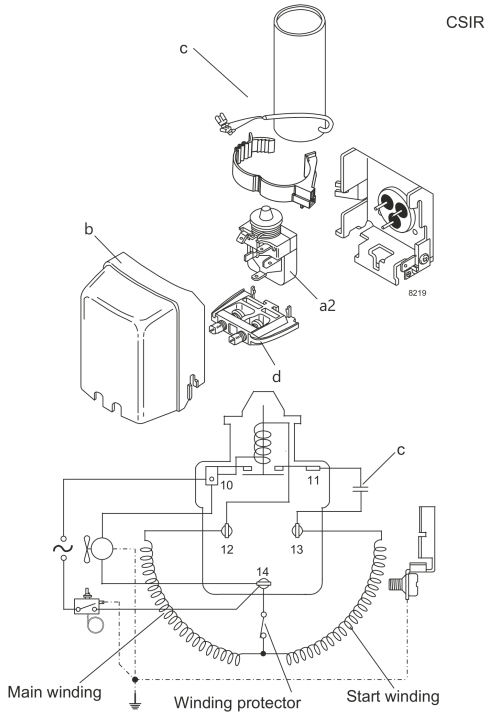
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**MBP**
Voltage range	**187-254 V**
Starting torque	**HST**
Approvals	**VDE, UL, CCC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**10.2 A**
RLA (rated load amps / 1s/ U(N))	**2.1 A**
Cut in current (U(N))	**15.1 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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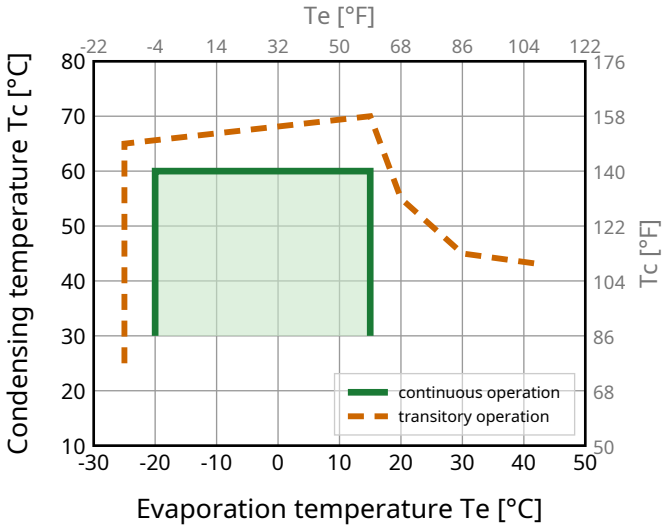
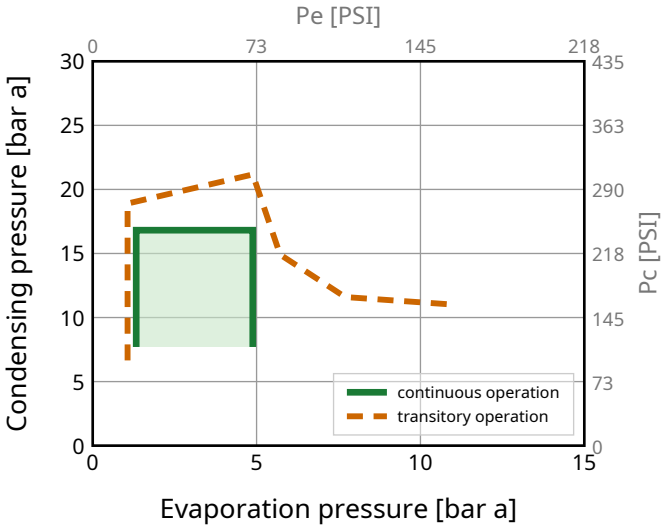
Components
a2 relay 117U6016
c start capacitor (80µF) 117U5015
b plastic cover 103N2011
d cord relief 103N1010

Operation Pressure Range





Model Sales code:

NL7.3MF Configuration 1 **105G6773**

Standard Conditions

R134a, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	**394**	1344	339	**1.63**	5.58	241	1.71	8.58	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**304**	1038	262	**1.34**	4.58	227	1.67	7.33	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**348**	1186	299	**1.62**	5.52	215	1.64	8.11	**EN12900 MBP**
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	**378**	1291	325	**1.62**	5.54	233	1.69	9.30	**ARI540 MBP**
-10 14	45 113	32 89.6	45 113	**360**	1229	310	**1.68**	5.72	215	1.64	7.86	**opt MBP 1**
-25 -13	45 113	32 89.6	45 113	**161**	548	138	**1.03**	3.50	157	1.54	3.48	**opt MBP 2**

Performance Tables

R134a, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-20	-4	**215**	735	185	**1.22**	4.17	176	1.56	4.67
-15	5	**281**	960	242	**1.44**	4.91	195	1.59	6.12
-10	14	**360**	1229	310	**1.68**	5.72	215	1.64	7.86
-5	23	**453**	1547	390	**1.93**	6.59	235	1.69	9.95
0	32	**563**	1921	484	**2.20**	7.51	256	1.76	12.42
5	41	**690**	2355	594	**2.49**	8.48	278	1.84	15.33
10	50	**837**	2856	720	**2.78**	9.48	301	1.94	18.73
15	59	**1005**	3428	864	**3.08**	10.50	327	2.04	22.70

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-20	-4	**179**	612	154	**0.99**	3.37	182	1.57	4.29
-15	5	**236**	806	203	**1.16**	3.95	204	1.61	5.67
-10	14	**304**	1038	262	**1.34**	4.58	227	1.67	7.33
-5	23	**385**	1313	331	**1.54**	5.25	250	1.74	9.32
0	32	**480**	1637	413	**1.75**	5.98	274	1.82	11.70
5	41	**590**	2015	508	**1.98**	6.75	298	1.91	14.51
10	50	**719**	2453	618	**2.21**	7.56	325	2.02	17.81
15	59	**867**	2957	745	**2.46**	8.39	352	2.14	21.69

Model
NL7.3MF Configuration 2

Sales code:
105G6773

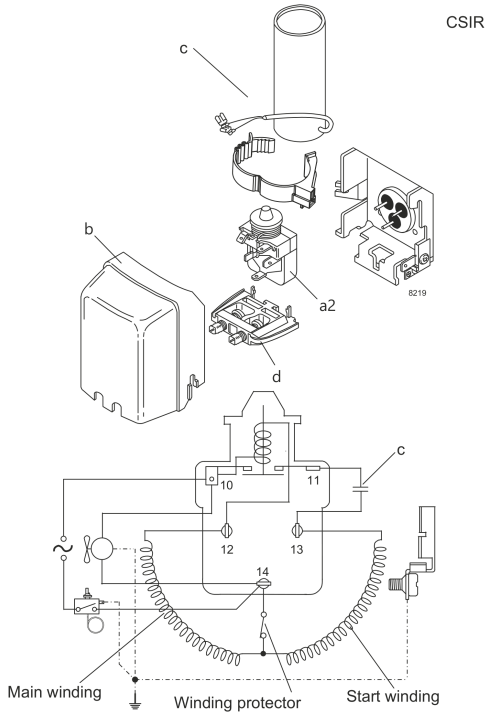
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R134a**
Application	**LBP+MBP**
Voltage range	**187-254 V**
Starting torque	**HST**
Approvals	**VDE, UL, CCC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**10.2 A**
RLA (rated load amps / 1s/ U(N))	**2.1 A**
Cut in current (U(N))	**15.1 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 1,5m/s

Electrical Accessories / Wiring Diagram



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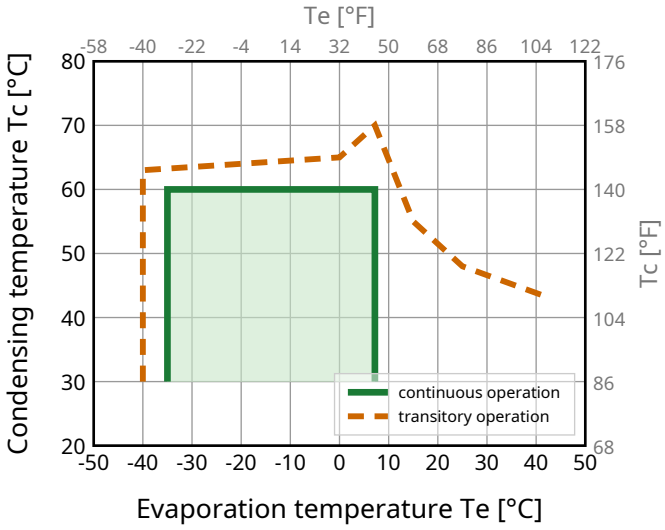
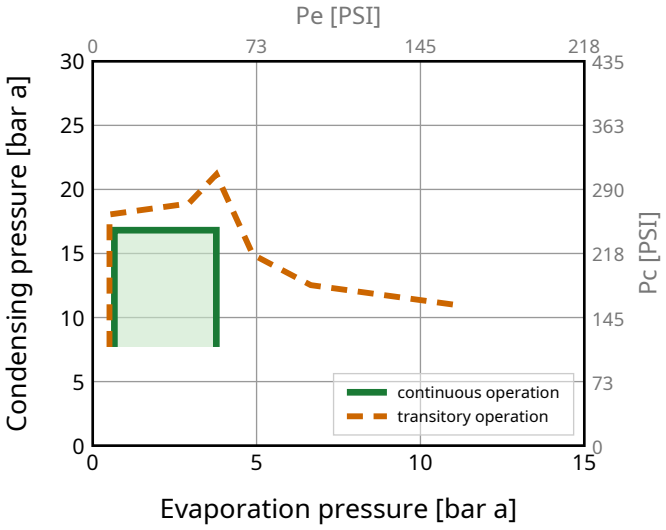
Components
a2 relay 117U6016
c start capacitor (80µF) 117U5015
b plastic cover 103N2011
d cord relief 103N1010

Operation Pressure Range





Model
NL7.3MF Configuration 2

Sales code:
105G6773

Standard Conditions

R134a, 220 V/60 Hz, CSIR, fan 1,5m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	**470**	1604	404	**1.58**	5.41	297	1.75	10.24	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**363**	1239	312	**1.32**	4.50	275	1.66	8.75	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**418**	1425	359	**1.60**	5.47	261	1.61	9.74	**EN12900 MBP**
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	**454**	1550	391	**1.59**	5.42	286	1.71	11.16	**ARI540 MBP**
-10 14	45 113	32 89.6	45 113	**433**	1476	372	**1.66**	5.66	261	1.61	9.45	**opt MBP 1**
-25 -13	45 113	32 89.6	45 113	**200**	683	172	**1.14**	3.87	176	1.31	4.33	**opt MBP 2**

Performance Tables

R134a, 220 V/60 Hz, CSIR, fan 1,5m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**105**	359	91	**0.86**	2.92	123	1.16	2.27
-30	-22	**148**	505	127	**0.99**	3.38	149	1.23	3.19
-20	-4	**264**	900	227	**1.29**	4.41	204	1.40	5.72
-10	14	**433**	1476	372	**1.66**	5.66	261	1.61	9.45
0	32	**669**	2282	575	**2.11**	7.19	318	1.85	14.76
7.2	45	**889**	3033	764	**2.48**	8.47	358	2.04	19.81

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-35	-31	**73**	249	63	**0.67**	2.27	110	1.11	1.74
-30	-22	**112**	384	97	**0.80**	2.72	141	1.20	2.68
-20	-4	**216**	735	185	**1.04**	3.55	207	1.41	5.16
-10	14	**363**	1239	312	**1.32**	4.50	275	1.66	8.75
0	32	**570**	1943	490	**1.65**	5.64	344	1.94	13.89
7.2	45	**763**	2604	656	**1.94**	6.60	394	2.16	18.81

Model
NL7.3MF Configuration 3

Sales code:
105G6773

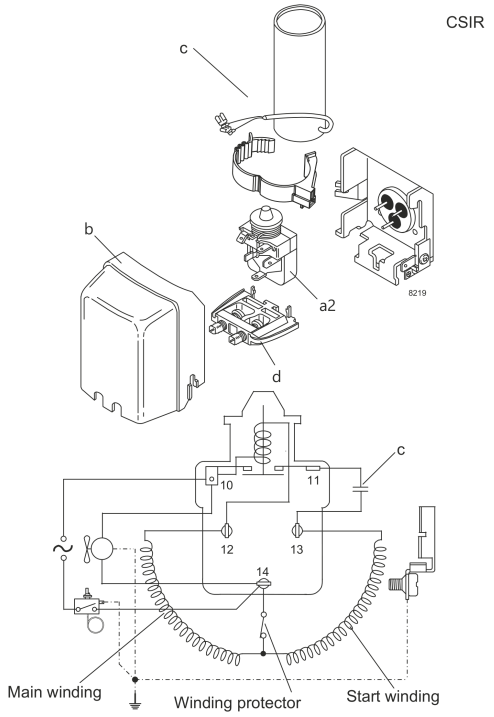
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R513A**
Application	**MBP**
Voltage range	**187-254 V**
Starting torque	**HST**
Approvals	**VDE, UL**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**10.2 A**
RLA (rated load amps / 1s/ U(N))	**2.1 A**
Cut in current (U(N))	**15.1 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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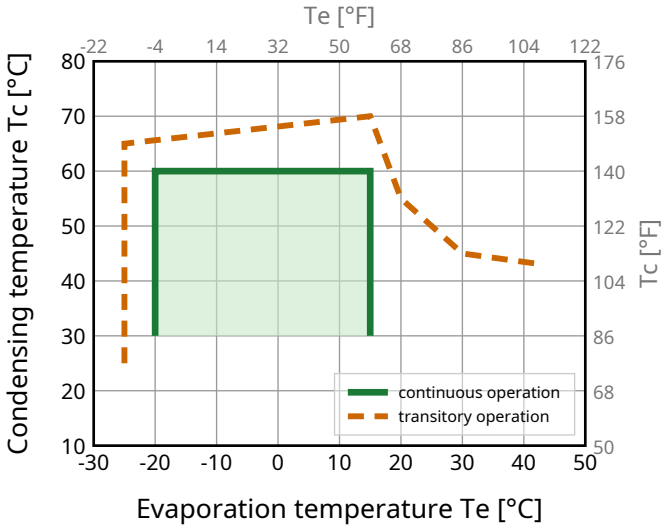
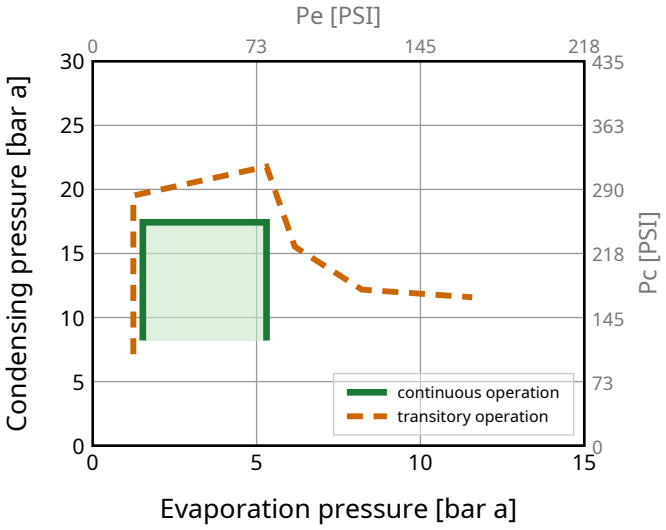
Components
a2 relay 117U6016
c start capacitor (80µF) 117U5015
b plastic cover 103N2011
d cord relief 103N1010

Operation Pressure Range





Model
NL7.3MF Configuration 3

Sales code:
105G6773

Standard Conditions

R513A, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	**414**	1413	356	**1.63**	5.55	255	1.76	10.32	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**316**	1079	272	**1.31**	4.49	240	1.72	8.88	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**362**	1236	311	**1.60**	5.45	227	1.68	9.81	**EN12900 MBP**
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	**389**	1326	334	**1.58**	5.39	246	1.73	11.19	**ARI540 MBP**
-10 14	45 113	32 89.6	45 113	**380**	1297	327	**1.67**	5.71	227	1.68	9.51	**opt MBP 1**
-25 -13	45 113	32 89.6	45 113	**176**	600	151	**1.05**	3.57	168	1.52	4.35	**opt MBP 2**

Performance Tables

R513A, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-20	-4	**232**	793	200	**1.24**	4.22	188	1.58	5.76
-15	5	**300**	1023	258	**1.45**	4.93	207	1.63	7.47
-10	14	**380**	1297	327	**1.67**	5.71	227	1.68	9.51
-5	23	**474**	1619	408	**1.92**	6.55	247	1.74	11.94
0	32	**584**	1994	503	**2.18**	7.45	268	1.79	14.80
5	41	**712**	2428	612	**2.46**	8.38	290	1.85	18.17
10	50	**858**	2926	738	**2.74**	9.35	313	1.91	22.09
15	59	**1024**	3494	881	**3.03**	10.32	338	1.98	26.65

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-20	-4	**191**	653	165	**0.98**	3.35	195	1.59	5.32
-15	5	**248**	848	214	**1.14**	3.89	218	1.66	6.94
-10	14	**316**	1079	272	**1.31**	4.49	240	1.72	8.88
-5	23	**396**	1352	341	**1.50**	5.13	264	1.78	11.19
0	32	**490**	1672	421	**1.71**	5.82	287	1.84	13.93
5	41	**599**	2043	515	**1.92**	6.55	312	1.91	17.18
10	50	**724**	2472	623	**2.15**	7.32	338	1.98	20.99
15	59	**868**	2963	747	**2.38**	8.11	365	2.05	25.46

Model
NL7.3MF Configuration 4

Sales code:
105G6773

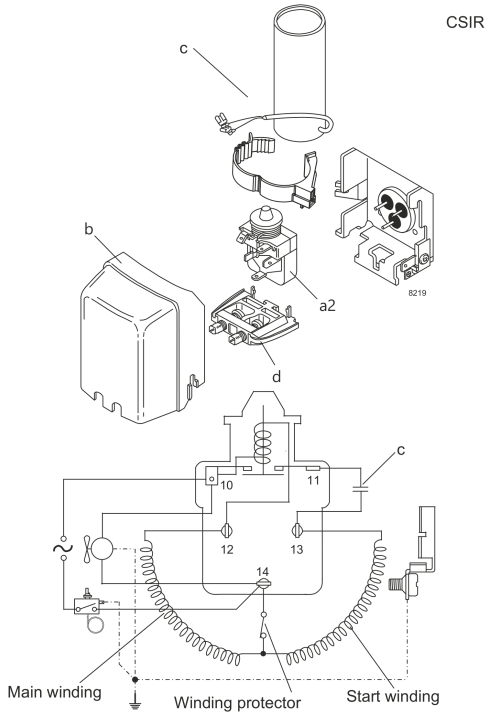
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R513A**
Application	**LBP+MBP**
Voltage range	**187-253 V**
Starting torque	**HST**
Approvals	**VDE, UL**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**10.2 A**
RLA (rated load amps / 1s/ U(N))	**2.1 A**
Cut in current (U(N))	**15.1 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 1,5m/s

Electrical Accessories / Wiring Diagram



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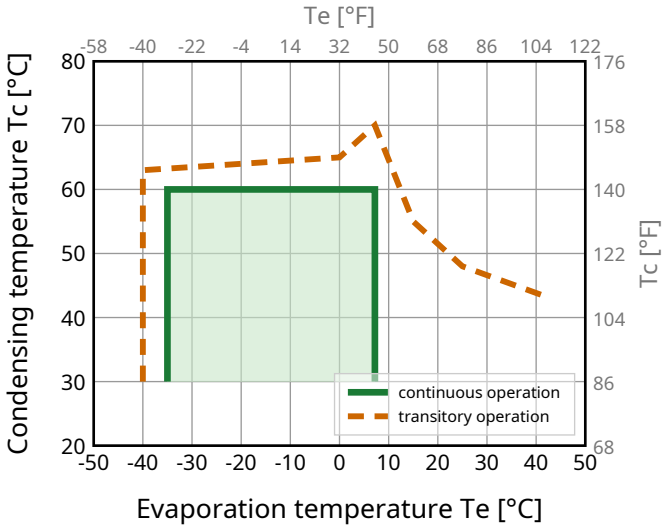
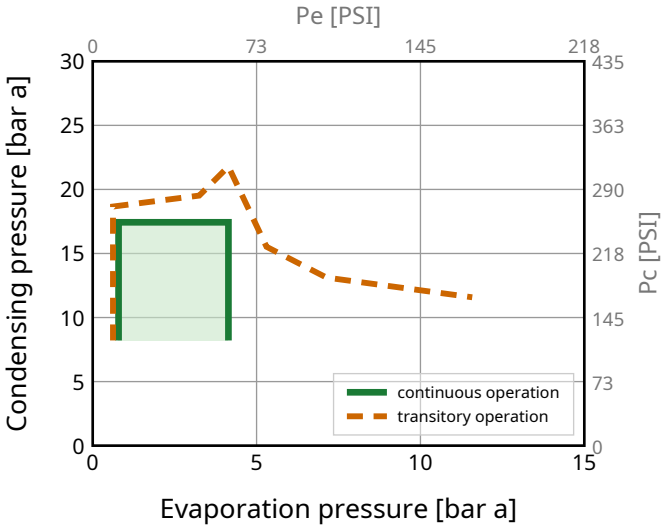
Components
a2 relay 117U6016
c start capacitor (80µF) 117U5015
b plastic cover 103N2011
d cord relief 103N1010

Operation Pressure Range





Model
NL7.3MF Configuration 4

Sales code:
105G6773

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	**494**	1686	425	**1.57**	5.35	315	1.83	12.32	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**378**	1288	325	**1.29**	4.39	294	1.75	10.59	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**435**	1485	374	**1.57**	5.35	277	1.69	11.78	**EN12900 MBP**
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	**466**	1591	401	**1.54**	5.24	303	1.79	13.43	**ARI540 MBP**
-10 14	45 113	32 89.6	45 113	**456**	1558	393	**1.65**	5.62	277	1.69	11.43	**opt MBP 1**
-25 -13	45 113	32 89.6	45 113	**219**	748	188	**1.14**	3.90	192	1.35	5.42	**opt MBP 2**

Performance Tables

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

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**121**	411	104	**0.89**	3.02	136	1.14	2.97
-30	-22	**165**	563	142	**1.01**	3.44	164	1.24	4.07
-20	-4	**285**	971	245	**1.29**	4.41	220	1.46	7.06
-10	14	**456**	1558	393	**1.65**	5.62	277	1.69	11.43
0	32	**694**	2369	597	**2.08**	7.08	334	1.91	17.59
7.2	45	**914**	3118	786	**2.44**	8.32	375	2.07	23.41

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-35	-31	**85**	290	73	**0.69**	2.34	124	1.09	2.34
-30	-22	**125**	428	108	**0.80**	2.73	157	1.22	3.46
-20	-4	**230**	784	198	**1.02**	3.50	224	1.48	6.39
-10	14	**378**	1288	325	**1.29**	4.39	294	1.75	10.59
0	32	**582**	1985	500	**1.60**	5.46	363	2.02	16.54
7.2	45	**771**	2632	663	**1.87**	6.37	413	2.22	22.22