Model
NL7.3MF

Sales code:
105G6777

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	RSIR	RSIR
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	187-254 V
Approvals	UL, VDE, CCC, EAC	UL, VDE, CCC, EAC	UL, VDE, CCC, EAC	UL, VDE, CCC, EAC
Starting torque	HST	HST	LST	LST
Refrigerant	R134a	R134a	R134a	R134a
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
- See data for different refrigerant attached

Model
NL7.3MF

Sales code:
105G6777

Compressor Design

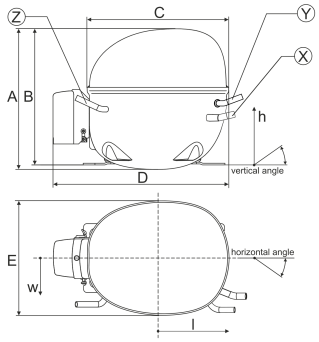
Oil type	**POE**	Winding resistance main	**8.3 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**11.8 Ohm**
Oil quantity	**268 / 9.06fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

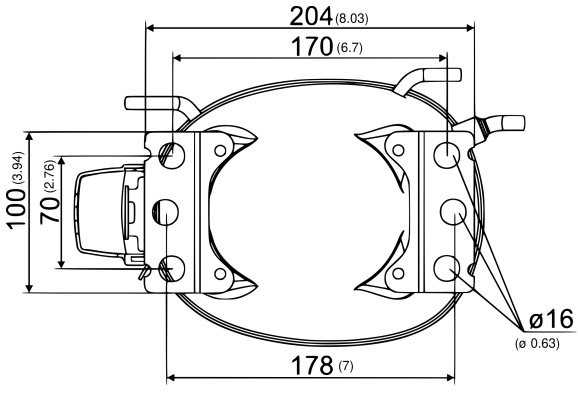
A Height	**197mm / 7.76in**
B Height	**191mm / 7.52in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



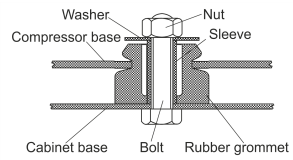
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in	-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

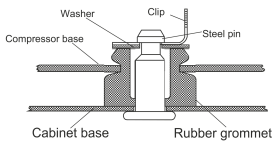


Dimensions in mm [in]

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:
105G6777

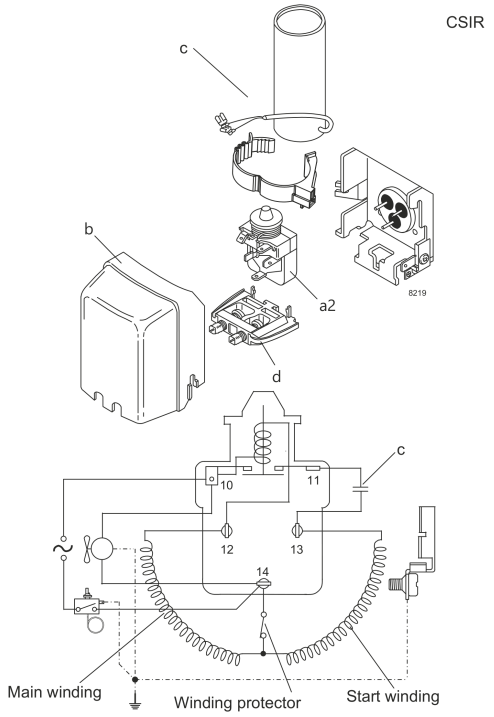
Configuration

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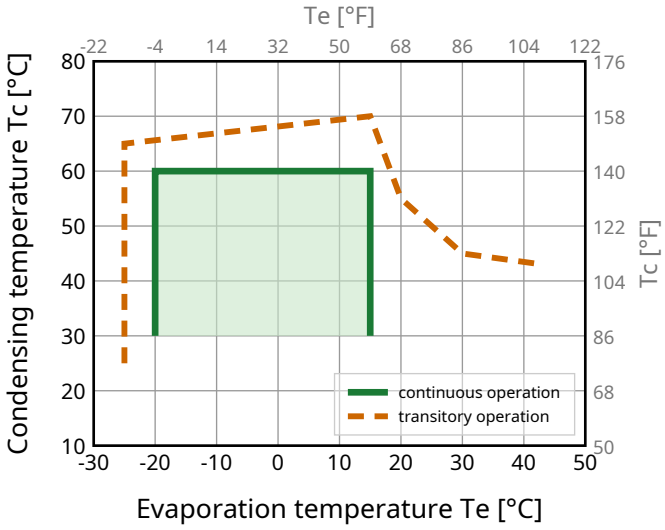
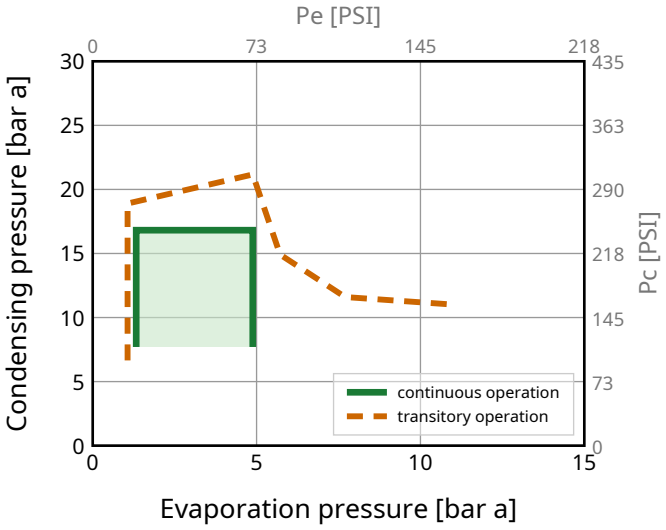
Components
a2 relay 117U6016
c start capacitor (80µF) 117U5015
b plastic cover 103N2011
d cord relief 103N1010

Operation Pressure Range





Model Sales code:

NL7.3MF Configuration 1 **105G6777**

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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**182**	621	156	**1.09**	3.73	166	1.55	3.53	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**132**	450	113	**0.83**	2.84	159	1.54	3.14	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**87**	297	75	**0.74**	2.52	118	1.56	1.90	**EN12900 LBP**
-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**

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:
105G6777

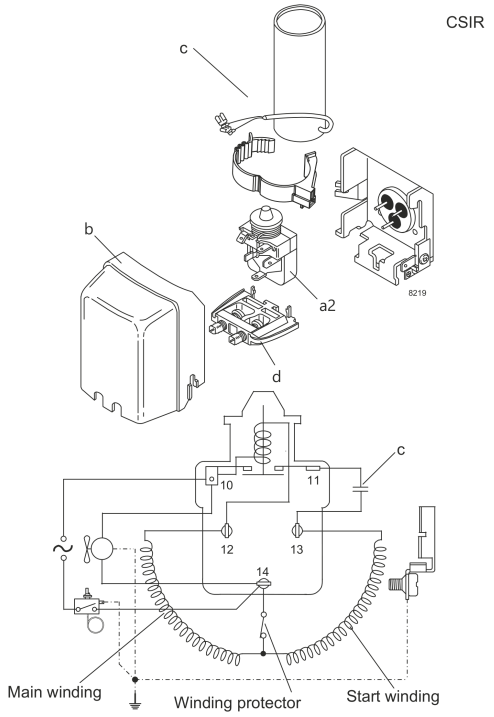
Configuration

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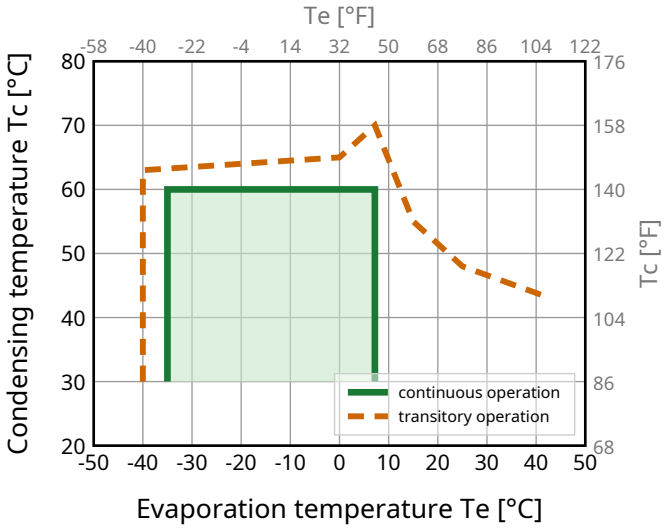
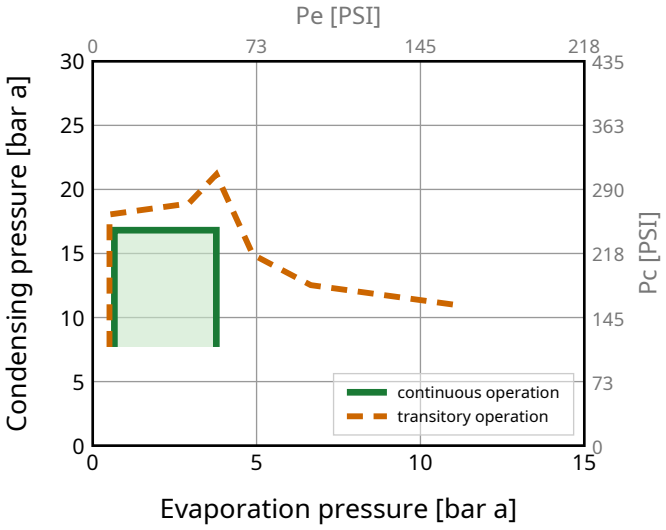
Components
a2 relay 117U6016
c start capacitor (80µF) 117U5015
b plastic cover 103N2011
d cord relief 103N1010

Operation Pressure Range





Model
NL7.3MF Configuration 2

Sales code:
105G6777

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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**220**	751	189	**1.19**	4.06	185	1.34	4.27	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**159**	544	137	**0.92**	3.13	174	1.30	3.80	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**117**	401	101	**0.92**	3.15	127	1.19	2.57	**EN12900 LBP**
-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**

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:
105G6777

Configuration

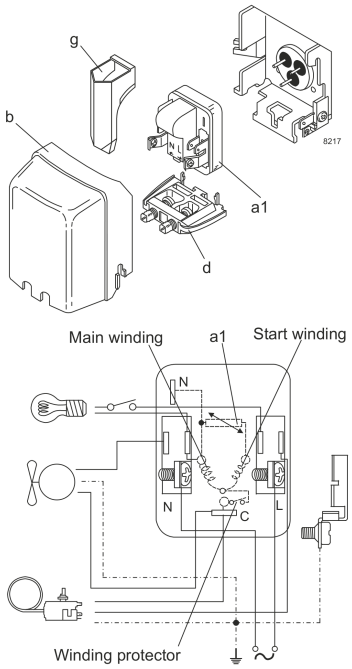
Motor configuration	**RSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**MBP**
Voltage range	**187-254 V**
Starting torque	**LST**
Approvals	**UL, VDE, CCC, EAC**
Starting device type	**PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
LRA (locked rotor amps / 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

RSIR



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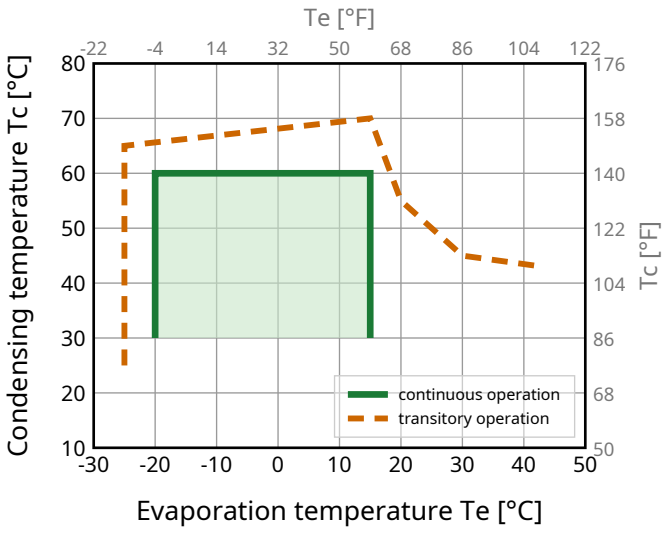
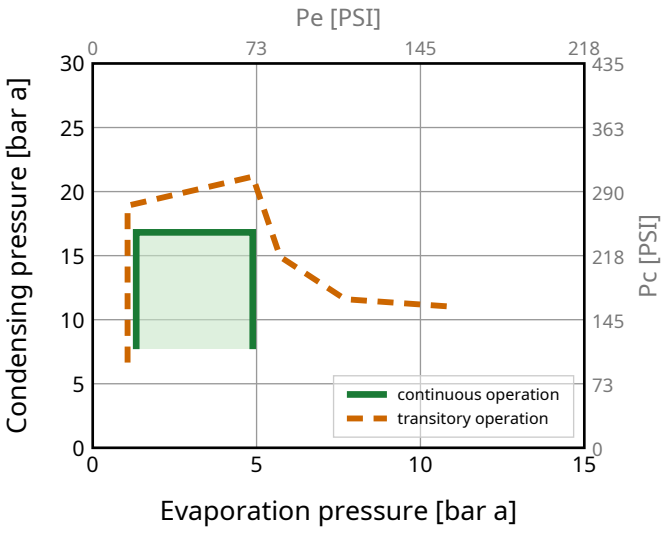
Components
a1 PTC starter (220V, 25Ohm, 4.8mm) 103N0018
b plastic cover 103N2011
d cord relief 103N1010
g protection screen for PTC 103N0476

Alternative components
a1 PTC starter (220V, 25Ohm, 6.3mm) 103N0011
b plastic cover 103N2010

Operation Pressure Range





Model
NL7.3MF Configuration 3

Sales code:
105G6777

Standard Conditions

R134a, 220 V/50 Hz, RSIR, 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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**182**	621	156	**1.09**	3.73	166	1.55	3.53	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**132**	450	113	**0.83**	2.84	159	1.54	3.14	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**87**	297	75	**0.74**	2.52	118	1.56	1.90	**EN12900 LBP**
-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**

Performance Tables

R134a, 220 V/50 Hz, RSIR, 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 4

Sales code:
105G6777

Configuration

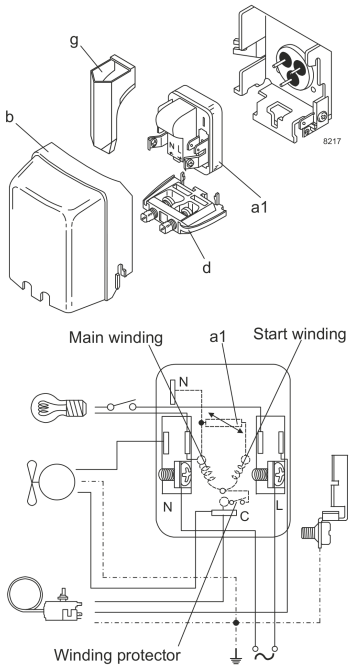
Motor configuration	**RSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R134a**
Application	**LBP+MBP**
Voltage range	**187-254 V**
Starting torque	**LST**
Approvals	**UL, VDE, CCC, EAC**
Starting device type	**PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
LRA (locked rotor amps / 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

RSIR



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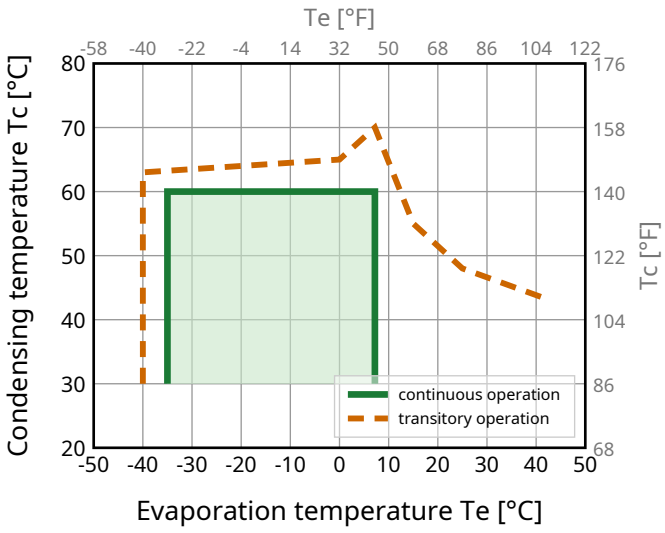
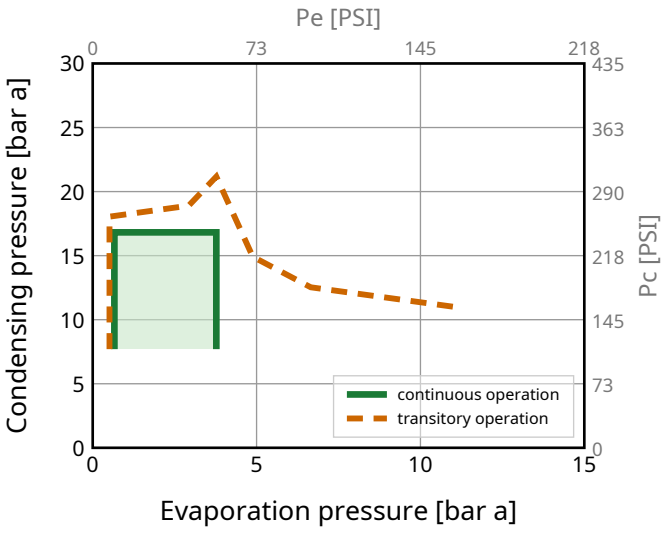
Components
a1 PTC starter (220V, 25Ohm, 4.8mm) 103N0018
b plastic cover 103N2011
d cord relief 103N1010
g protection screen for PTC 103N0476

Alternative components
a1 PTC starter (220V, 25Ohm, 6.3mm) 103N0011
b plastic cover 103N2010

Operation Pressure Range





Model

NL7.3MF Configuration 4

Sales code:

105G6777

Standard Conditions

R134a, 220 V/60 Hz, RSIR, 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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**220**	751	189	**1.19**	4.06	185	1.34	4.27	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**159**	544	137	**0.92**	3.13	174	1.30	3.80	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**117**	401	101	**0.92**	3.15	127	1.19	2.57	**EN12900 LBP**
-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**

Performance Tables

R134a, 220 V/60 Hz, RSIR, 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