Model
NL7.3MF

Sales code:
105G6794

Compressor Data

Refrigerant(s)	**R1234yf / 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	VDE, UL	VDE, UL	VDE, UL
Starting torque	HST	HST	HST	HST
Refrigerant	R1234yf	R1234yf	R513A	R513A
Application	MBP	MBP	MBP	MBP
Long interval pull down	OK	OK	OK	OK

Application Notes

- Electrical equipment is included and pre-assembled to compressor.
- Provision for PE Grounding is located at the PE Stamp on the compressor

Model
NL7.3MF

Sales code:
105G6794

Compressor Design

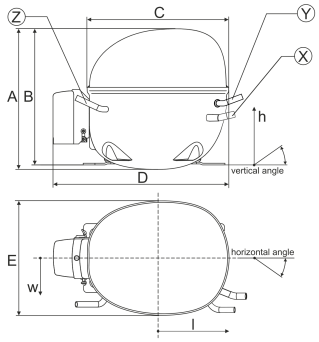
Oil type	**POE**	Winding resistance main	**8.3 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**11.8 Ohm**
Oil quantity	**268 cm3 / 9.06fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

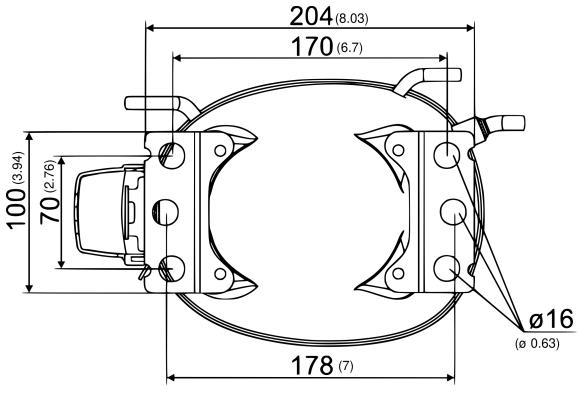
A Height	**197mm / 7.76in**
B Height	**191mm / 7.52in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



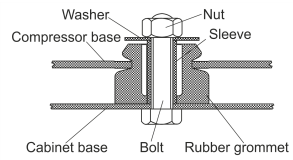
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 9.61–9.79 / 0.38–0.39in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in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

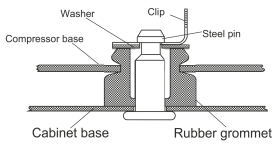


Dimensions in mm [in]

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:
105G6794

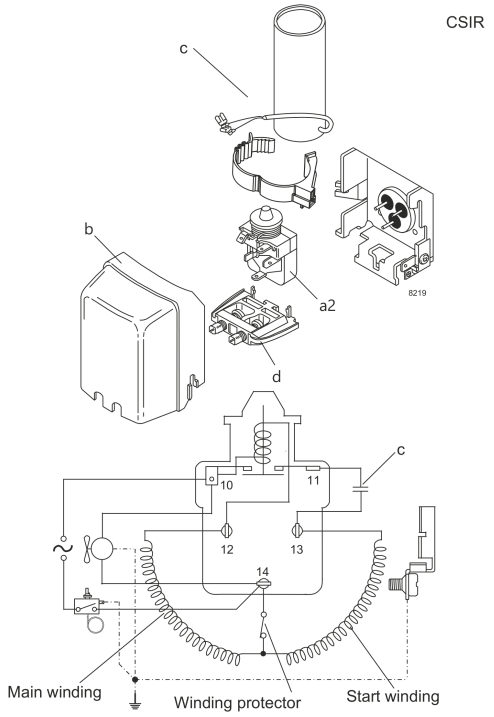
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R1234yf**
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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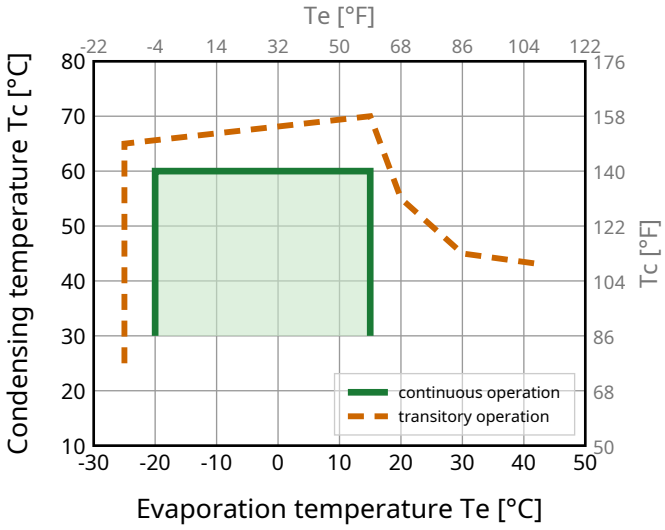
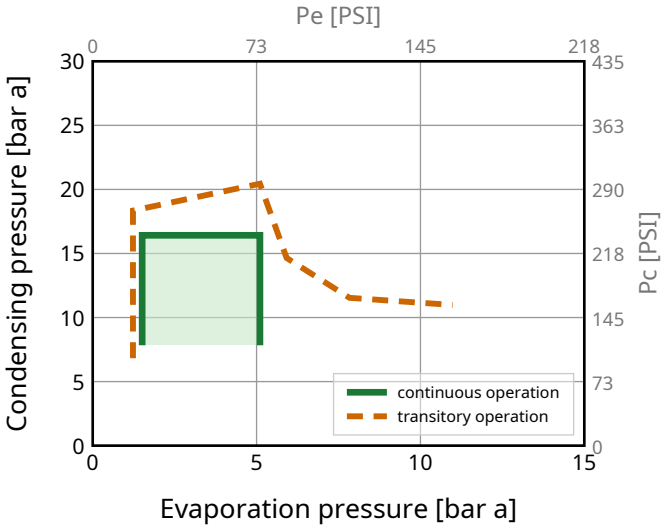
Components (already pre-assembled)
a2 current relay 117U7016
c start capacitor (80µF) 117U5015
b plastic cover 103N2011
d cord relief 103N1010

Operation Pressure Range





Model Sales code:

NL7.3MF Configuration 1 **105G6794**

Standard Conditions

R1234yf, 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	**200**	684	172	**1.14**	3.90	175	1.51	4.72	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**140**	479	121	**0.83**	2.85	168	1.50	4.25	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**98**	335	84	**0.77**	2.64	127	1.45	2.69	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**398**	1358	342	**1.63**	5.57	244	1.65	10.75	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**303**	1032	260	**1.31**	4.47	231	1.62	9.29	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**345**	1176	296	**1.58**	5.38	219	1.59	10.21	**EN12900 MBP**

Performance Tables

R1234yf, 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	**226**	772	195	**1.24**	4.21	183	1.52	6.09
-15	5	**290**	989	249	**1.44**	4.92	201	1.56	7.83
-10	14	**365**	1245	314	**1.67**	5.69	219	1.59	9.91
-5	23	**453**	1544	389	**1.91**	6.53	236	1.64	12.36
0	32	**554**	1891	477	**2.17**	7.42	255	1.68	15.23
5	41	**671**	2291	577	**2.45**	8.35	274	1.74	18.59
10	50	**805**	2747	692	**2.73**	9.31	295	1.80	22.50
15	59	**957**	3264	823	**3.02**	10.29	317	1.87	27.03

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

-20	-4	**186**	634	160	**0.98**	3.34	190	1.54	5.65
-15	5	**240**	817	206	**1.14**	3.88	211	1.58	7.31
-10	14	**303**	1032	260	**1.31**	4.47	231	1.62	9.29
-5	23	**377**	1285	324	**1.50**	5.11	252	1.67	11.63
0	32	**463**	1579	398	**1.70**	5.79	272	1.73	14.40
5	41	**562**	1918	483	**1.91**	6.52	294	1.80	17.65
10	50	**676**	2308	582	**2.14**	7.29	317	1.87	21.45
15	59	**807**	2752	694	**2.37**	8.08	340	1.95	25.90

Model
NL7.3MF Configuration 2

Sales code:
105G6794

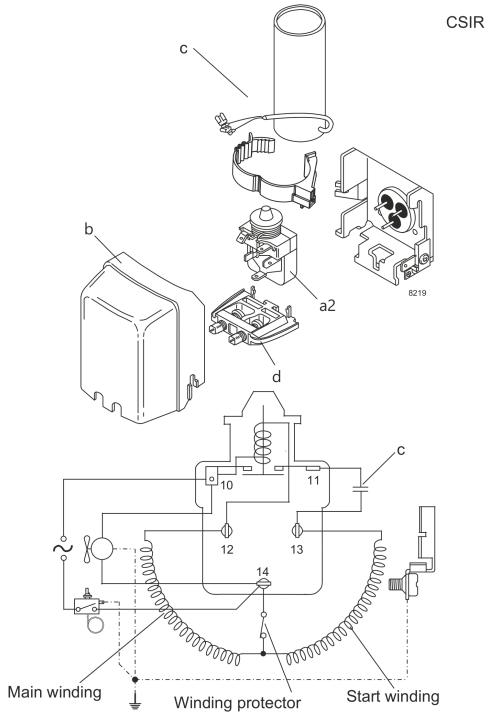
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R1234yf**
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 1,5m/s

Electrical Accessories / Wiring Diagram



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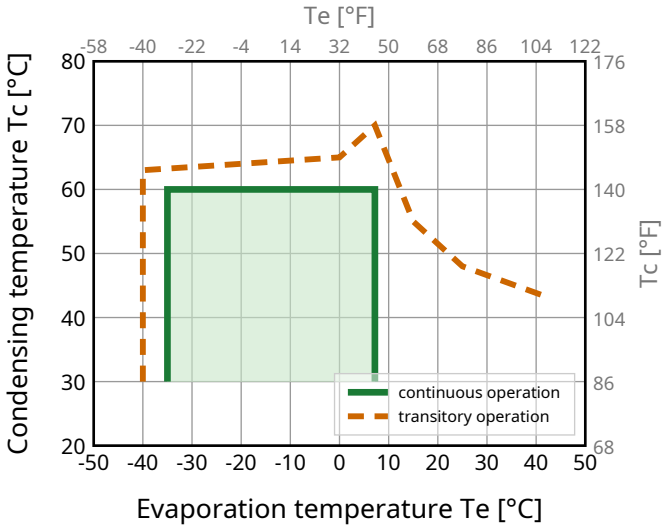
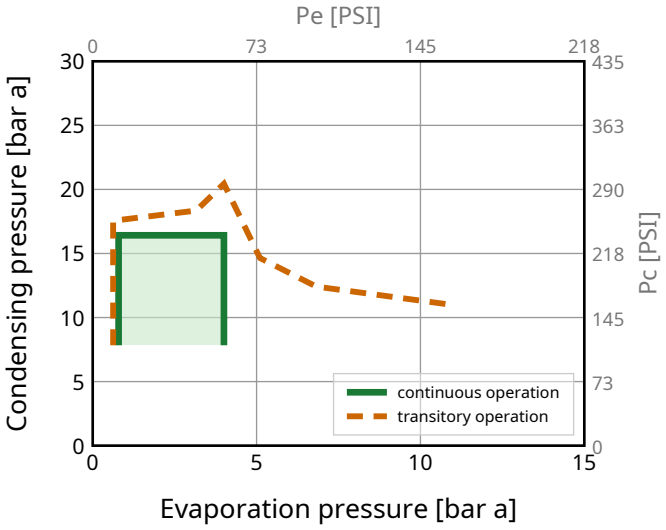
Components (already pre-assembled)
a2 current relay 117U7016
c start capacitor (80µF) 117U5015
b plastic cover 103N2011
d cord relief 103N1010

Operation Pressure Range





Model

NL7.3MF Configuration 2

Sales code:

105G6794

Standard Conditions

R1234yf, 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	**242**	827	208	**1.22**	4.17	198	1.31	5.71	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**170**	578	146	**0.90**	3.08	188	1.28	5.13	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**132**	450	114	**0.94**	3.20	141	1.16	3.62	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**475**	1621	408	**1.58**	5.39	300	1.65	12.83	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**361**	1232	311	**1.28**	4.38	281	1.58	11.09	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**414**	1412	356	**1.55**	5.30	266	1.53	12.27	**EN12900 MBP**

Performance Tables

R1234yf, 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**	414	104	**0.89**	3.03	137	1.15	3.24
-30	-22	**164**	559	141	**1.01**	3.44	163	1.21	4.38
-20	-4	**277**	946	238	**1.29**	4.40	215	1.36	7.46
-10	14	**438**	1495	377	**1.65**	5.61	266	1.53	11.90
0	32	**659**	2247	566	**2.08**	7.10	317	1.71	18.10
7.2	45	**861**	2936	740	**2.45**	8.35	352	1.85	23.93

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

-35	-31	**85**	291	73	**0.68**	2.33	125	1.11	2.57
-30	-22	**124**	423	107	**0.80**	2.71	156	1.19	3.74
-20	-4	**223**	762	192	**1.02**	3.48	219	1.37	6.78
-10	14	**361**	1232	311	**1.28**	4.38	281	1.58	11.09
0	32	**550**	1875	473	**1.60**	5.47	342	1.81	17.10
7.2	45	**723**	2467	622	**1.88**	6.40	385	1.99	22.79

Model
NL7.3MF Configuration 3

Sales code:
105G6794

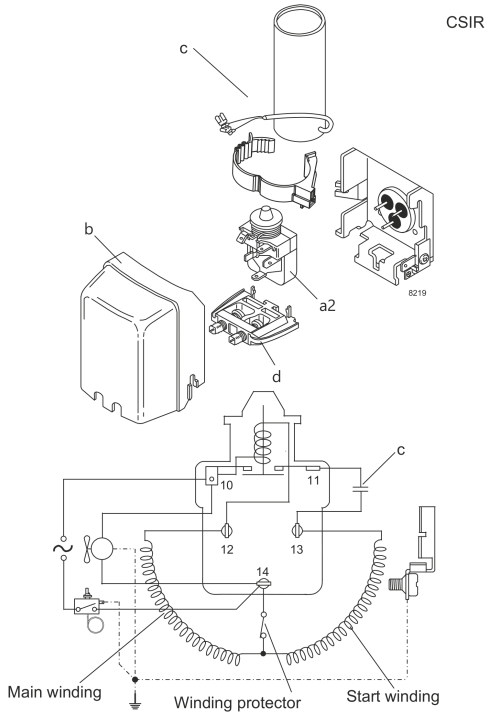
Configuration

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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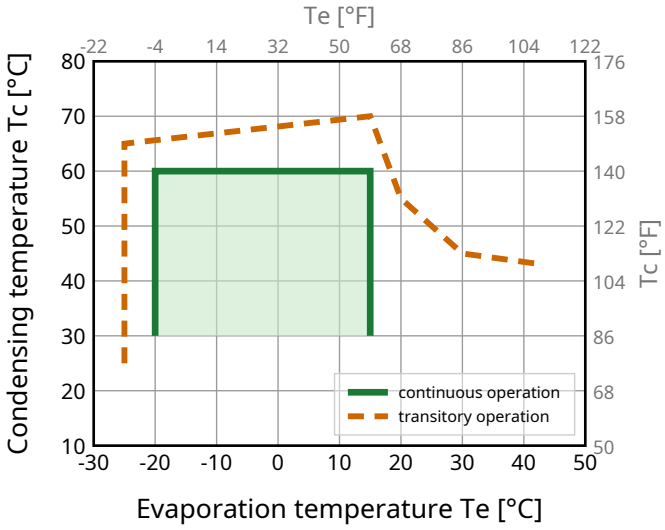
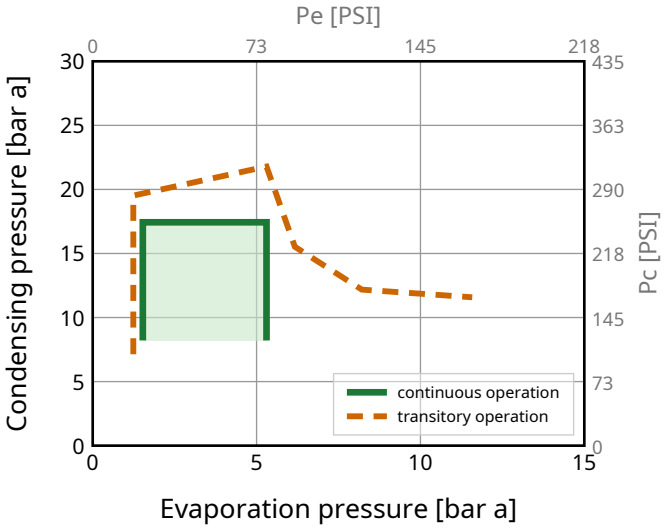
Components (already pre-assembled)
a2 current relay 117U7016
c start capacitor (80µF) 117U5015
b plastic cover 103N2011
d cord relief 103N1010

Operation Pressure Range





Model
NL7.3MF Configuration 3

Sales code:
105G6794

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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**202**	689	174	**1.13**	3.84	179	1.55	4.42	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**143**	489	123	**0.83**	2.85	172	1.53	3.97	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**98**	335	85	**0.77**	2.63	127	1.41	2.47	**EN12900 LBP**
-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**

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:
105G6794

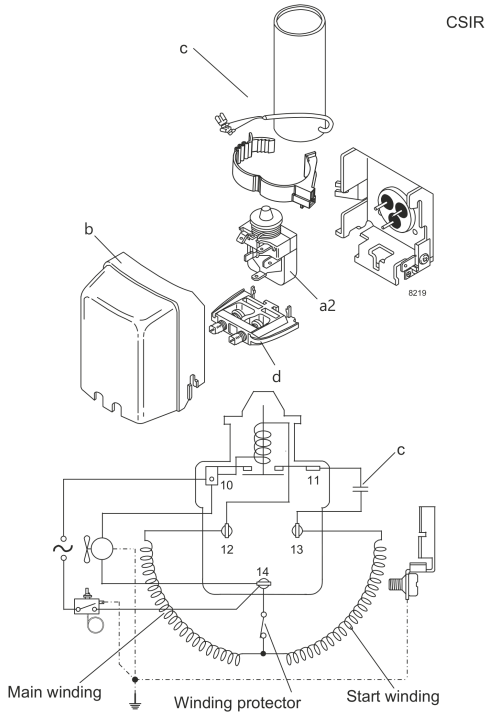
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R513A**
Application	**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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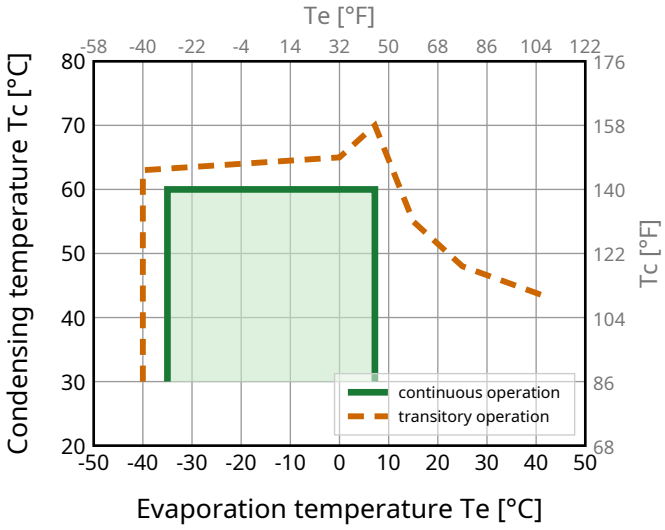
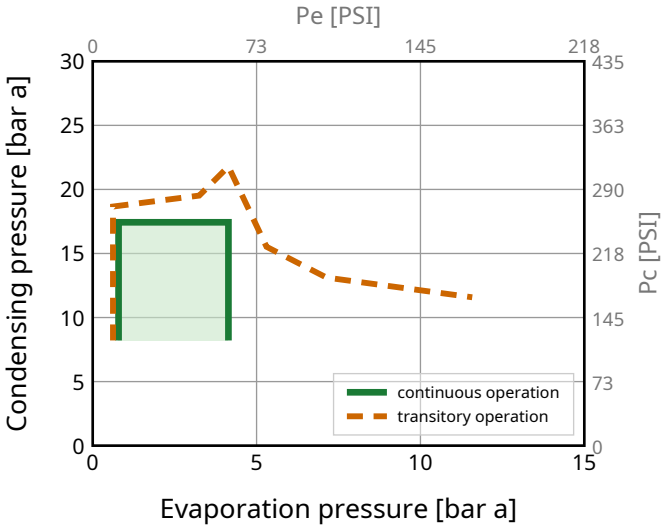
Components (already pre-assembled)
a2 current relay 117U7016
c start capacitor (80µF) 117U5015
b plastic cover 103N2011
d cord relief 103N1010

Operation Pressure Range





Model

NL7.3MF Configuration 4

Sales code:

105G6794

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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**244**	834	210	**1.21**	4.13	202	1.39	5.35	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**173**	591	149	**0.91**	3.10	190	1.35	4.79	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**132**	451	114	**0.94**	3.22	140	1.15	3.33	**EN12900 LBP**
-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**

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