Model
NL6.1MF

Sales code:
105G6661

Compressor Data

Refrigerant(s)	**R134a**
Refr. charge - tech. limit	**600g / 21.16oz**
Weight	**10.00 kg / 22.05lbs**
Displacement	**6.13 cm3 / 0.37cu.in**
Compressors on pallet	**80**

General – Configurations With NL6.1MF

–	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	VDE, UL, CCC, EAC	VDE, UL, CCC, EAC	VDE, UL, CCC, EAC	VDE, UL, CCC, EAC
Starting torque	HST	HST	HST	HST
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

Model
NL6.1MF

Sales code:
105G6661

Compressor Design

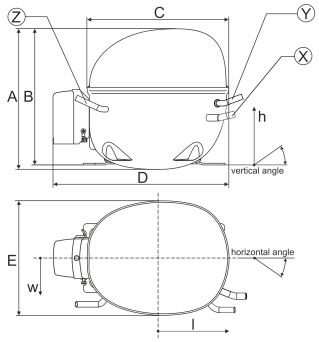
Oil type	**POE**	Winding resistance main	**10.3 Ohm**
Oil viscosity	**19,2cSt**	Winding resistance aux	**16.4 Ohm**
Oil quantity	**265 / 8.96fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

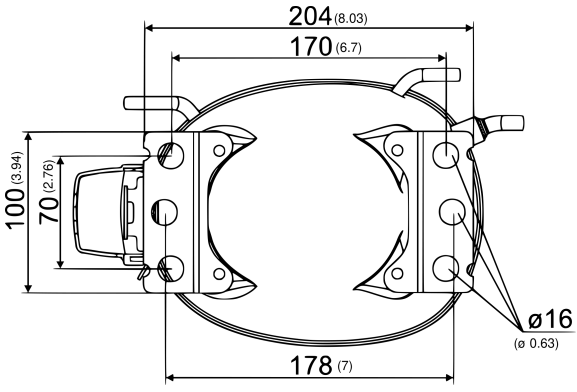
A Height	**190.5mm / 7.50in**
B Height	**184.5mm / 7.26in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



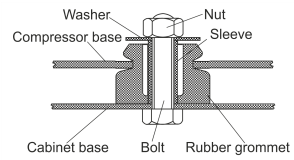
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in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

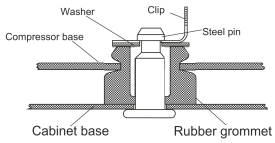


Dimensions in mm [in]

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
NL6.1MF Configuration 1

Sales code:
105G6661

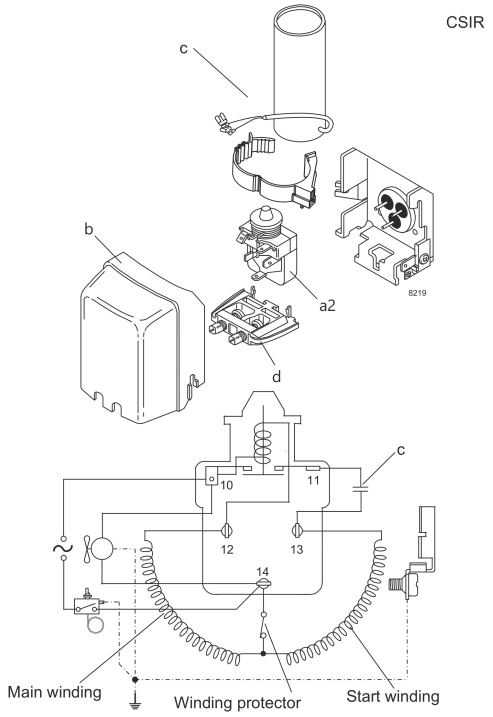
Configuration

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))	**8 A**
RLA (rated load amps / 1s/ U(N))	**1.7 A**
Cut in current (U(N))	**12.2 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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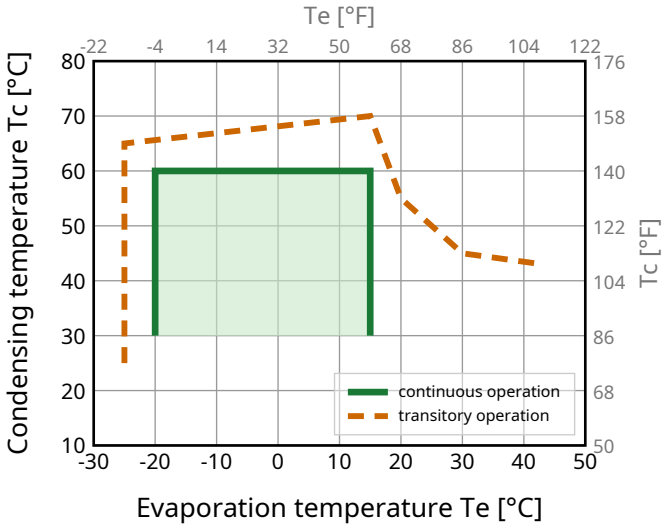
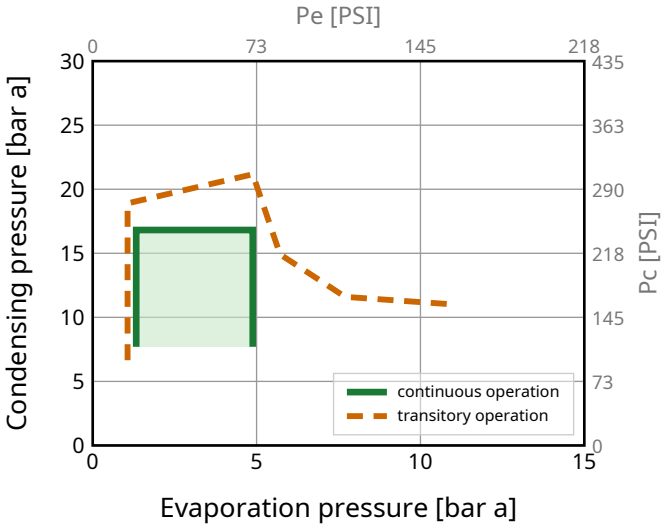
Components
a2 relay 117U6015
c start capacitor (80µF) 117U5015
b plastic cover 103N2010
d cord relief 103N1010

Alternative components
b plastic cover 103N2011

Operation Pressure Range





Model
NL6.1MF Configuration 1

Sales code:
105G6661

Standard Conditions

R134a, 220 V/50 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	**141**	481	121	**1.03**	3.51	137	1.33	2.73	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**101**	344	87	**0.77**	2.64	130	1.32	2.40	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**66**	223	56	**0.69**	2.37	94	1.32	1.43	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**319**	1089	275	**1.60**	5.47	199	1.46	6.95	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**245**	836	211	**1.31**	4.46	188	1.43	5.91	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**284**	968	244	**1.60**	5.45	178	1.40	6.62	**EN12900 MBP**

Performance Tables

R134a, 220 V/50 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]
-20	-4	**173**	591	149	**1.19**	4.05	146	1.34	3.76
-15	5	**228**	779	196	**1.41**	4.81	162	1.37	4.97
-10	14	**294**	1003	253	**1.65**	5.64	178	1.40	6.42
-5	23	**371**	1267	319	**1.92**	6.55	193	1.44	8.15
0	32	**462**	1576	397	**2.21**	7.53	209	1.49	10.19
5	41	**567**	1934	487	**2.52**	8.59	225	1.54	12.59
10	50	**688**	2346	591	**2.84**	9.70	242	1.60	15.39
15	59	**825**	2816	710	**3.19**	10.87	259	1.66	18.65

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

-20	-4	**141**	480	121	**0.94**	3.21	150	1.35	3.37
-15	5	**188**	643	162	**1.12**	3.81	169	1.39	4.53
-10	14	**245**	836	211	**1.31**	4.46	188	1.43	5.91
-5	23	**312**	1065	268	**1.51**	5.17	206	1.48	7.56
0	32	**390**	1332	336	**1.74**	5.93	224	1.54	9.52
5	41	**482**	1644	414	**1.98**	6.76	243	1.60	11.84
10	50	**588**	2005	505	**2.24**	7.63	263	1.67	14.56
15	59	**709**	2419	610	**2.51**	8.55	283	1.75	17.75

Model
NL6.1MF Configuration 2

Sales code:
105G6661

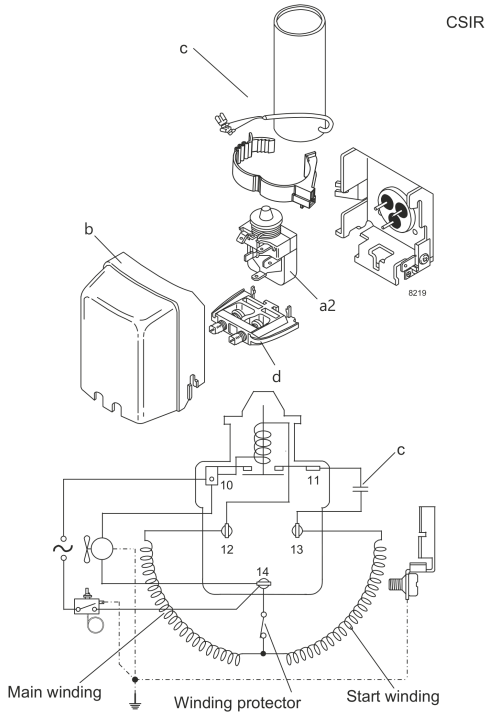
Configuration

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))	**8 A**
RLA (rated load amps / 1s/ U(N))	**1.7 A**
Cut in current (U(N))	**12.2 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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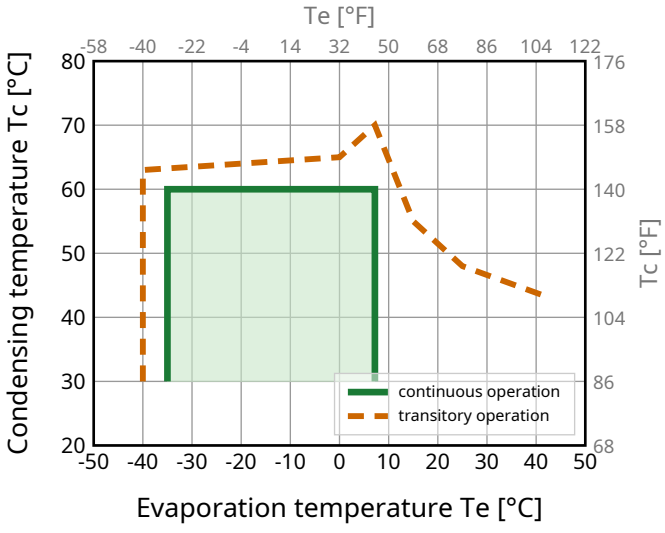
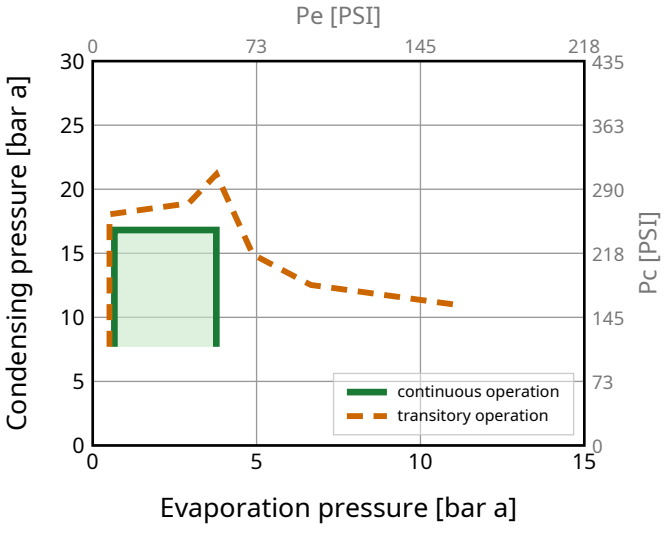
Components
a2 relay 117U6015
c start capacitor (80µF) 117U5015
b plastic cover 103N2010
d cord relief 103N1010

Alternative components
b plastic cover 103N2011

Operation Pressure Range





Model
NL6.1MF Configuration 2

Sales code:
105G6661

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	**165**	562	142	**1.16**	3.97	142	1.11	3.20	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**117**	399	101	**0.89**	3.02	132	1.08	2.79	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**82**	278	70	**0.88**	3.01	92	0.98	1.78	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**382**	1304	329	**1.62**	5.53	236	1.44	8.32	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**292**	997	251	**1.34**	4.58	218	1.37	7.04	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**340**	1159	292	**1.65**	5.64	205	1.33	7.92	**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	**71**	241	61	**0.79**	2.71	89	0.96	1.52
-30	-22	**107**	366	92	**0.96**	3.29	111	1.02	2.31
-20	-4	**207**	706	178	**1.31**	4.48	158	1.16	4.49
-10	14	**352**	1201	303	**1.71**	5.84	205	1.33	7.69
0	32	**555**	1894	477	**2.19**	7.47	254	1.52	12.25
7.2	45	**744**	2539	640	**2.58**	8.81	288	1.68	16.58

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

-35	-31	**43**	146	37	**0.55**	1.88	78	0.91	1.02
-30	-22	**77**	262	66	**0.73**	2.50	105	0.99	1.82
-20	-4	**165**	564	142	**1.03**	3.52	160	1.17	3.95
-10	14	**292**	997	251	**1.34**	4.58	218	1.37	7.04
0	32	**470**	1603	404	**1.70**	5.80	276	1.60	11.45
7.2	45	**636**	2170	547	**2.00**	6.81	319	1.78	15.68

Model
NL6.1MF Configuration 3

Sales code:
105G6661

Configuration

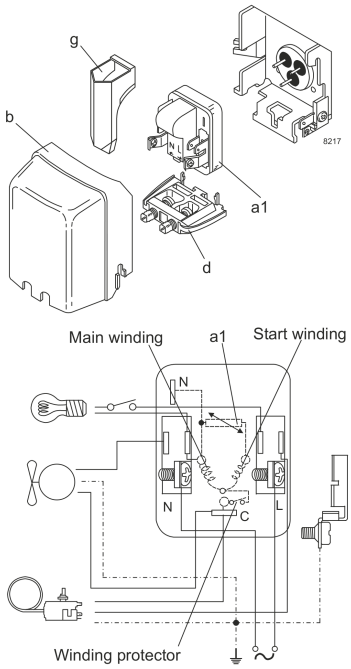
Motor configuration	**RSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**MBP**
Voltage range	**187-254 V**
Starting torque	**HST**
Approvals	**VDE, UL, CCC, EAC**
Starting device type	**PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ U(N))	**8 A**
RLA (rated load amps / 1s/ U(N))	**1.7 A**
Cut in current (U(N))	**12.2 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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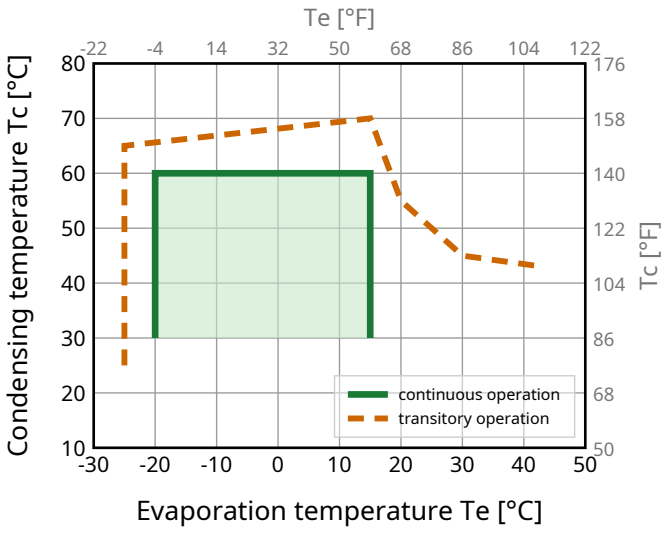
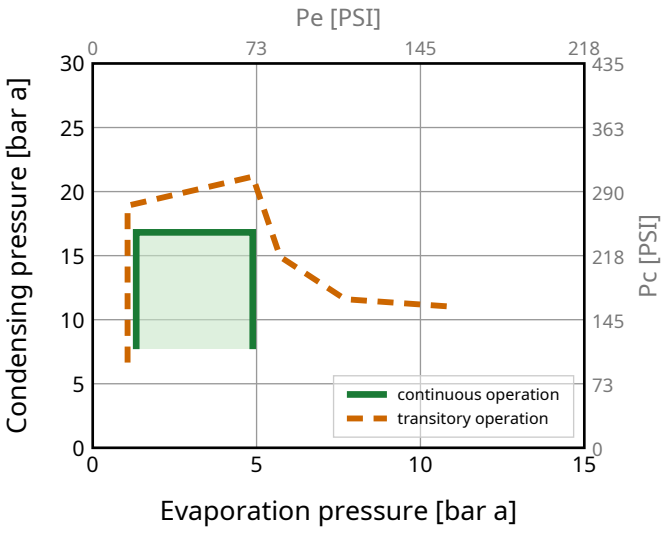
Components
a1 PTC starter (220V, 25Ohm, 4.8mm) 103N0018
b plastic cover 103N2011
d cord relief 103N1010
g protection screen for PTC 103N0476

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

Operation Pressure Range





Model
NL6.1MF Configuration 3

Sales code:
105G6661

Standard Conditions

R134a, 220 V/50 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	**141**	481	121	**1.03**	3.51	137	1.33	2.73	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**101**	344	87	**0.77**	2.64	130	1.32	2.40	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**66**	223	56	**0.69**	2.37	94	1.32	1.43	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**319**	1089	275	**1.60**	5.47	199	1.46	6.95	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**245**	836	211	**1.31**	4.46	188	1.43	5.91	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**284**	968	244	**1.60**	5.45	178	1.40	6.62	**EN12900 MBP**

Performance Tables

R134a, 220 V/50 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]
-20	-4	**173**	591	149	**1.19**	4.05	146	1.34	3.76
-15	5	**228**	779	196	**1.41**	4.81	162	1.37	4.97
-10	14	**294**	1003	253	**1.65**	5.64	178	1.40	6.42
-5	23	**371**	1267	319	**1.92**	6.55	193	1.44	8.15
0	32	**462**	1576	397	**2.21**	7.53	209	1.49	10.19
5	41	**567**	1934	487	**2.52**	8.59	225	1.54	12.59
10	50	**688**	2346	591	**2.84**	9.70	242	1.60	15.39
15	59	**825**	2816	710	**3.19**	10.87	259	1.66	18.65

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

-20	-4	**141**	480	121	**0.94**	3.21	150	1.35	3.37
-15	5	**188**	643	162	**1.12**	3.81	169	1.39	4.53
-10	14	**245**	836	211	**1.31**	4.46	188	1.43	5.91
-5	23	**312**	1065	268	**1.51**	5.17	206	1.48	7.56
0	32	**390**	1332	336	**1.74**	5.93	224	1.54	9.52
5	41	**482**	1644	414	**1.98**	6.76	243	1.60	11.84
10	50	**588**	2005	505	**2.24**	7.63	263	1.67	14.56
15	59	**709**	2419	610	**2.51**	8.55	283	1.75	17.75

Model
NL6.1MF Configuration 4

Sales code:
105G6661

Configuration

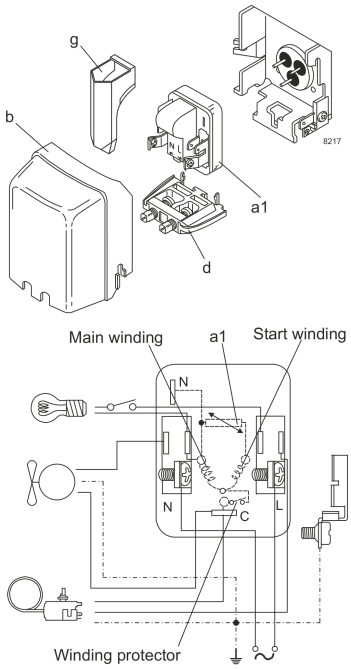
Motor configuration	**RSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R134a**
Application	**LBP+MBP**
Voltage range	**187-254 V**
Starting torque	**HST**
Approvals	**VDE, UL, CCC, EAC**
Starting device type	**PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ U(N))	**8 A**
RLA (rated load amps / 1s/ U(N))	**1.7 A**
Cut in current (U(N))	**12.2 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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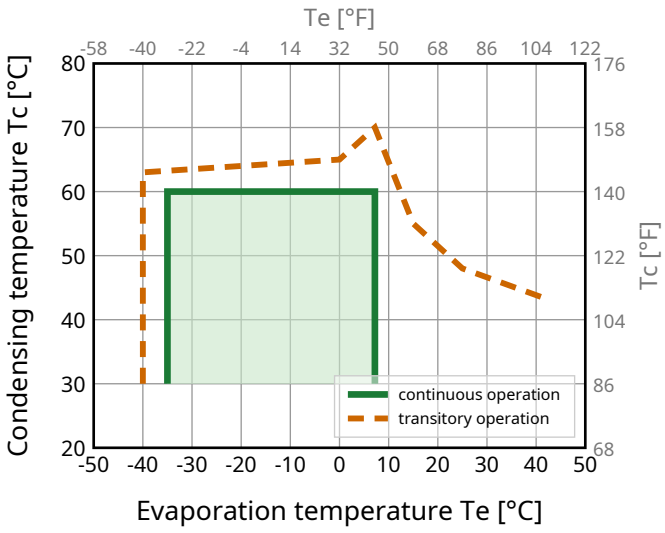
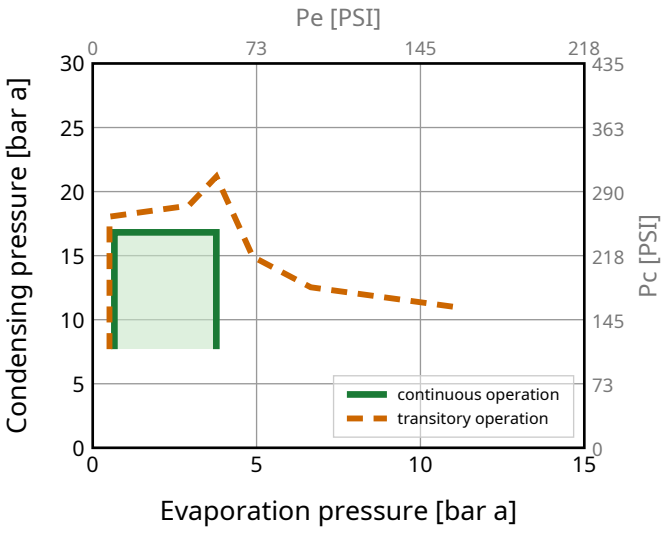
Components
a1 PTC starter (220V, 25Ohm, 4.8mm) 103N0018
b plastic cover 103N2011
d cord relief 103N1010
g protection screen for PTC 103N0476

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

Operation Pressure Range





Model
NL6.1MF Configuration 4

Sales code:
105G6661

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	**165**	562	142	**1.16**	3.97	142	1.11	3.20	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**117**	399	101	**0.89**	3.02	132	1.08	2.79	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**82**	278	70	**0.88**	3.01	92	0.98	1.78	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**382**	1304	329	**1.62**	5.53	236	1.44	8.32	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**292**	997	251	**1.34**	4.58	218	1.37	7.04	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**340**	1159	292	**1.65**	5.64	205	1.33	7.92	**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	**71**	241	61	**0.79**	2.71	89	0.96	1.52
-30	-22	**107**	366	92	**0.96**	3.29	111	1.02	2.31
-20	-4	**207**	706	178	**1.31**	4.48	158	1.16	4.49
-10	14	**352**	1201	303	**1.71**	5.84	205	1.33	7.69
0	32	**555**	1894	477	**2.19**	7.47	254	1.52	12.25
7.2	45	**744**	2539	640	**2.58**	8.81	288	1.68	16.58

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

-35	-31	**43**	146	37	**0.55**	1.88	78	0.91	1.02
-30	-22	**77**	262	66	**0.73**	2.50	105	0.99	1.82
-20	-4	**165**	564	142	**1.03**	3.52	160	1.17	3.95
-10	14	**292**	997	251	**1.34**	4.58	218	1.37	7.04
0	32	**470**	1603	404	**1.70**	5.80	276	1.60	11.45
7.2	45	**636**	2170	547	**2.00**	6.81	319	1.78	15.68