

Model
NL9FT

Sales code:
105G6059

Compressor Data

Refrigerant(s)	R134a
Refr. charge - tech. limit	400g / 14.11oz
Weight	10.00 kg / 22.05lbs
Displacement	8.35 cm³ / 0.51cu.in
Compressors on pallet	80



General – Configurations With NL9FT

	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	198-254 V	187-254 V	198-254 V
Approvals	VDE	VDE	VDE	VDE
Starting torque	HST	HST	LST	LST
Refrigerant	R134a	R134a	R134a	R134a
Application	LBP	LBP	LBP	LBP

Application Notes

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

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Compressor Design

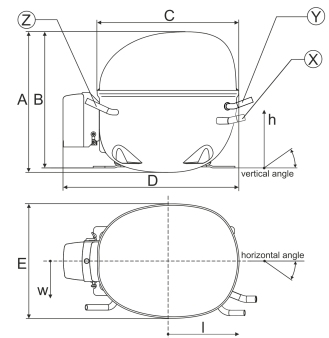
Oil type	POE	Winding resistance main	8.900 Ohm
Oil viscosity	32cSt	Winding resistance aux	12.00 Ohm
Oil quantity	268 / 9.06fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	2,360 cm ³ / 79.80fl.oz	Max. discharge temp.	130°C / 266°F
Motor protection	internal		

Compressor Dimensions

Housing

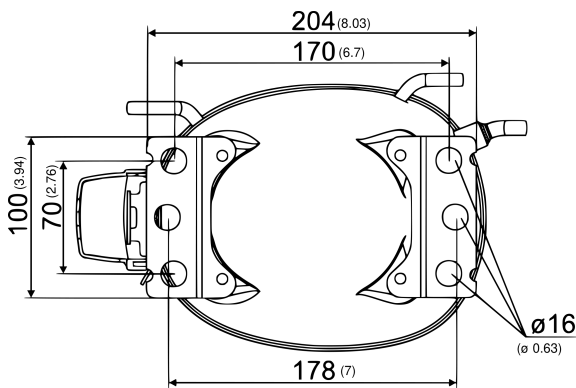
A Height	197mm / 7.76in
B Height	191mm / 7.52in
C Length shell	205mm / 8.07in
D Length w. cover	254mm / 10.00in
E Width	166mm / 6.54in

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Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 6.11–6.29 / 0.24–0.25in	øi 5.12–5.22 / 0.20–0.21in	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

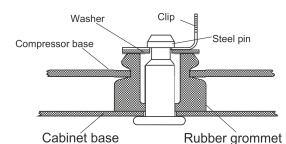
Mounting Accessories



Bolt joint



Snap-on



Dimensions in mm [in]

	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

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Configuration 1

Sales code:

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Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	187-254 V
Starting torque	HST
Approvals	VDE
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	9 A
RLA (rated load amps / 1s/ U(N))	1.6 A
Cut in current (U(N))	12.8 A

Ambient/ machine room temperatures minimum /maximum

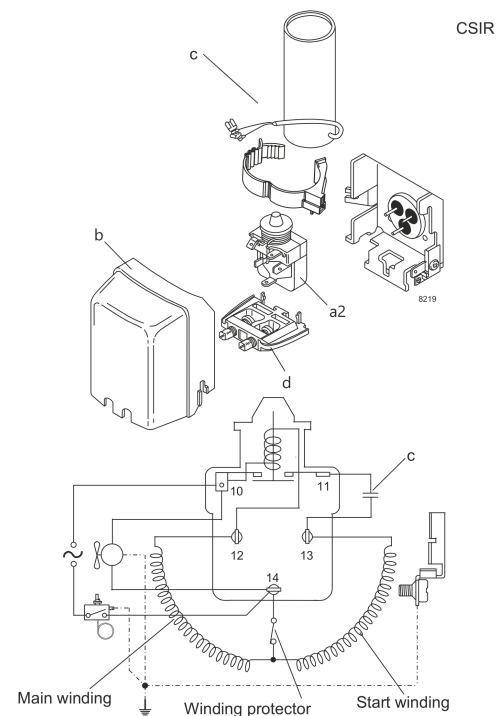
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

static

Electrical Accessories / Wiring Diagram



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Components

a2 relay 117U6015

c start capacitor (80µF) 117U5015

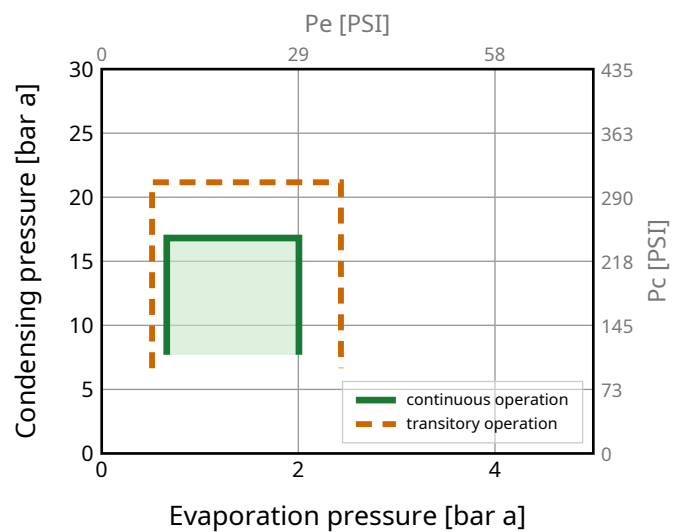
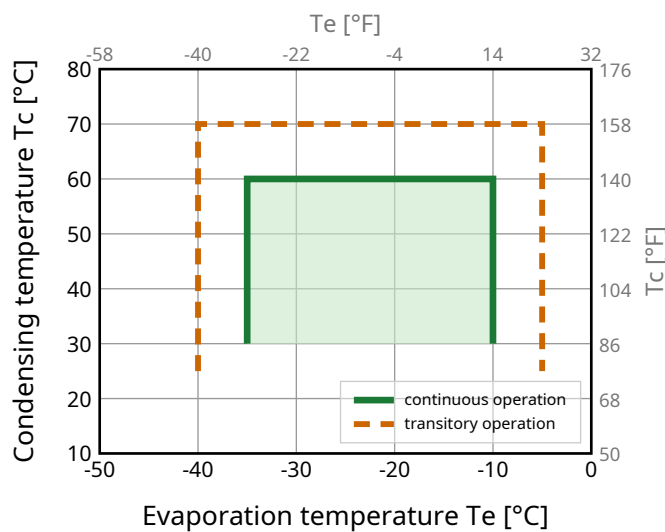
b plastic cover 103N2010

d cord relief 103N1010

Alternative components

b plastic cover 103N2011

Operation Pressure Range



Model
NL9FT

Configuration 1

Sales code:
105G6059

Standard Conditions

R134a, 220 V/50 Hz, CSIR, static

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°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	219	748	189	1.23	4.20	178	1.30	4.25	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	162	551	139	0.95	3.25	170	1.28	3.85	CECOMAF LBP
-35 -31	40 104	20 68	40 104	115	391	99	0.91	3.10	126	1.18	2.51	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	182	620	156	1.03	3.50	177	1.30	4.76	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	246	839	211	1.43	4.88	172	1.29	4.77	AHAM LBP
-25 -13	45 113	32 89.6	45 113	194	661	167	1.16	3.95	167	1.28	4.19	opt LBP

Performance Tables

R134a, 220 V/50 Hz, CSIR, static

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

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	107	366	92	0.84	2.88	127	1.19	2.31
-30	-22	146	497	125	1.00	3.41	146	1.23	3.14
-25	-13	194	661	167	1.16	3.95	167	1.28	4.19
-20	-4	253	863	217	1.33	4.54	190	1.34	5.48
-15	5	324	1106	279	1.51	5.16	214	1.42	7.05
-10	14	409	1396	352	1.71	5.84	239	1.51	8.93

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

-35	-31	87	297	75	0.69	2.34	127	1.18	2.06
-30	-22	120	409	103	0.82	2.79	146	1.22	2.85
-25	-13	162	551	139	0.95	3.25	170	1.28	3.85
-20	-4	213	726	183	1.09	3.72	195	1.36	5.09
-15	5	275	939	237	1.24	4.22	223	1.45	6.61
-10	14	350	1194	301	1.39	4.75	252	1.55	8.44

Model
NL9FT

Configuration 2

Sales code:
105G6059

Configuration

Motor configuration	CSIR
Power supply (nominal)	208-230 V/60 Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254 V
Starting torque	HST
Approvals	VDE
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
RLA (rated load amps / 1s/ U(N))	-/-A

Ambient/ machine room temperatures minimum /maximum

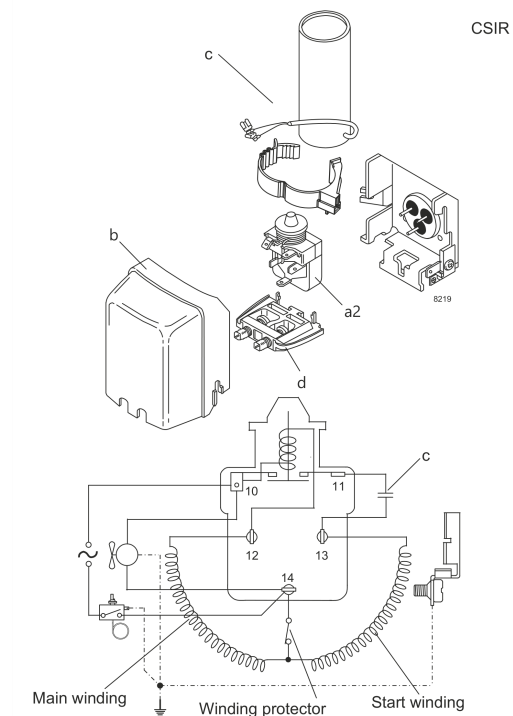
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

static

Electrical Accessories / Wiring Diagram



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Components

a2 relay 117U6015

c start capacitor (80µF) 117U5015

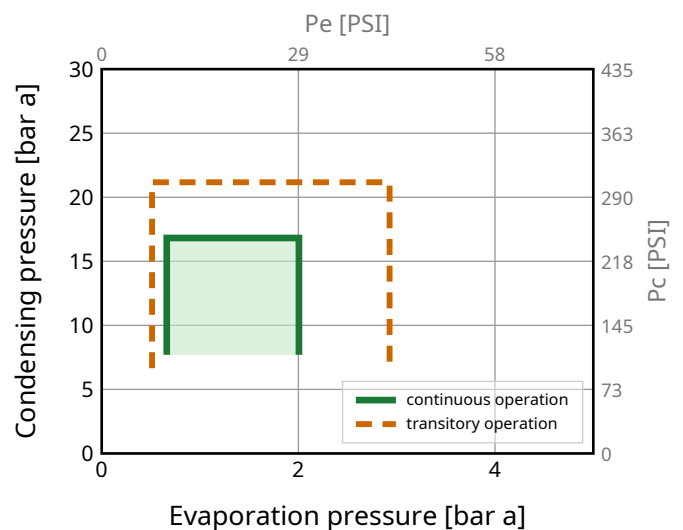
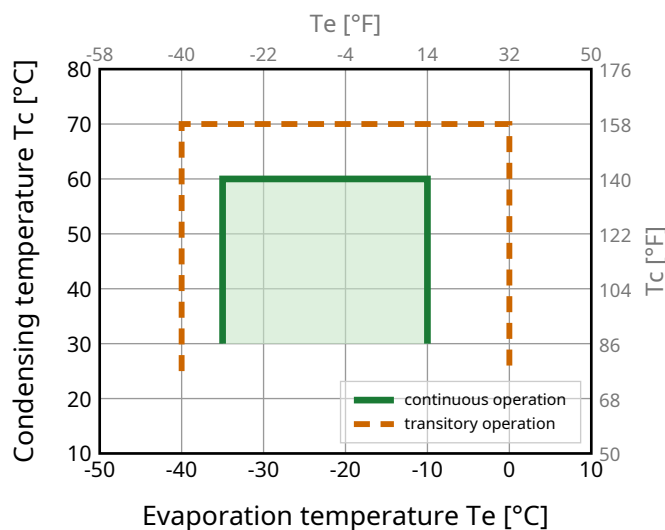
b plastic cover 103N2010

d cord relief 103N1010

Alternative components

b plastic cover 103N2011

Operation Pressure Range



Model
NL9FT

Configuration 2

Sales code:
105G6059

Standard Conditions

R134a, 220 V/60 Hz, CSIR, static

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°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	270	920	232	1.38	4.71	195	1.43	5.23	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	197	674	170	1.07	3.65	184	1.39	4.71	CECOMAF LBP
-35 -31	40 104	20 68	40 104	122	415	105	0.96	3.28	127	1.19	2.66	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	223	761	192	1.15	3.91	195	1.43	5.85	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	300	1025	258	1.59	5.43	189	1.43	5.83	AHAM LBP
-25 -13	45 113	32 89.6	45 113	236	805	203	1.29	4.42	182	1.40	5.10	opt LBP

Performance Tables

R134a, 220 V/60 Hz, CSIR, static

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

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	114	388	98	0.89	3.02	128	1.20	2.45
-30	-22	170	581	147	1.10	3.77	154	1.29	3.68
-25	-13	236	805	203	1.29	4.42	182	1.40	5.10
-20	-4	312	1065	268	1.47	5.02	212	1.50	6.77
-15	5	401	1369	345	1.65	5.63	243	1.62	8.73
-10	14	506	1725	435	1.84	6.28	275	1.74	11.04

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

-35	-31	91	311	78	0.71	2.43	128	1.19	2.17
-30	-22	141	480	121	0.91	3.10	154	1.28	3.35
-25	-13	197	674	170	1.07	3.65	184	1.39	4.71
-20	-4	264	900	227	1.21	4.14	217	1.51	6.31
-15	5	341	1165	294	1.35	4.62	252	1.65	8.20
-10	14	433	1477	372	1.50	5.11	289	1.79	10.44

Model

NL9FT

Configuration 3

Sales code:

105G6059

Configuration

Motor configuration	RSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	187-254 V
Starting torque	LST
Approvals	VDE
Starting device type	PTC
Run capacitor	-/-
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	9 A
RLA (rated load amps / 1s/ U(N))	1.6 A
Cut in current (U(N))	12.8 A

Ambient/ machine room temperatures minimum /maximum

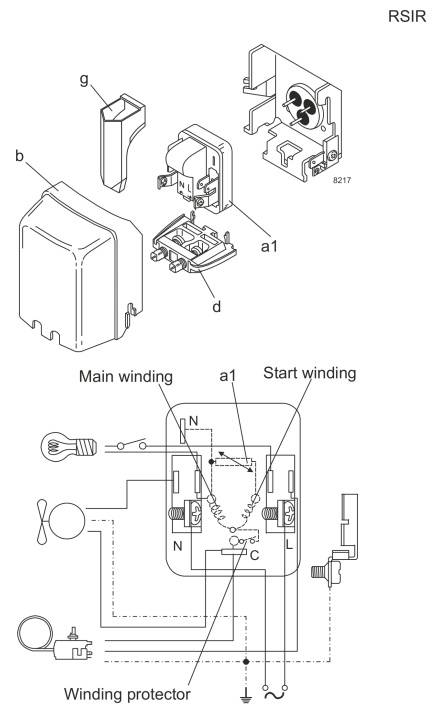
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

static

Electrical Accessories / Wiring Diagram


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Components

a1 PTC starter (220V, 250Ohm, 4.8mm) 103N0018

b plastic cover 103N2011

d cord relief 103N1010

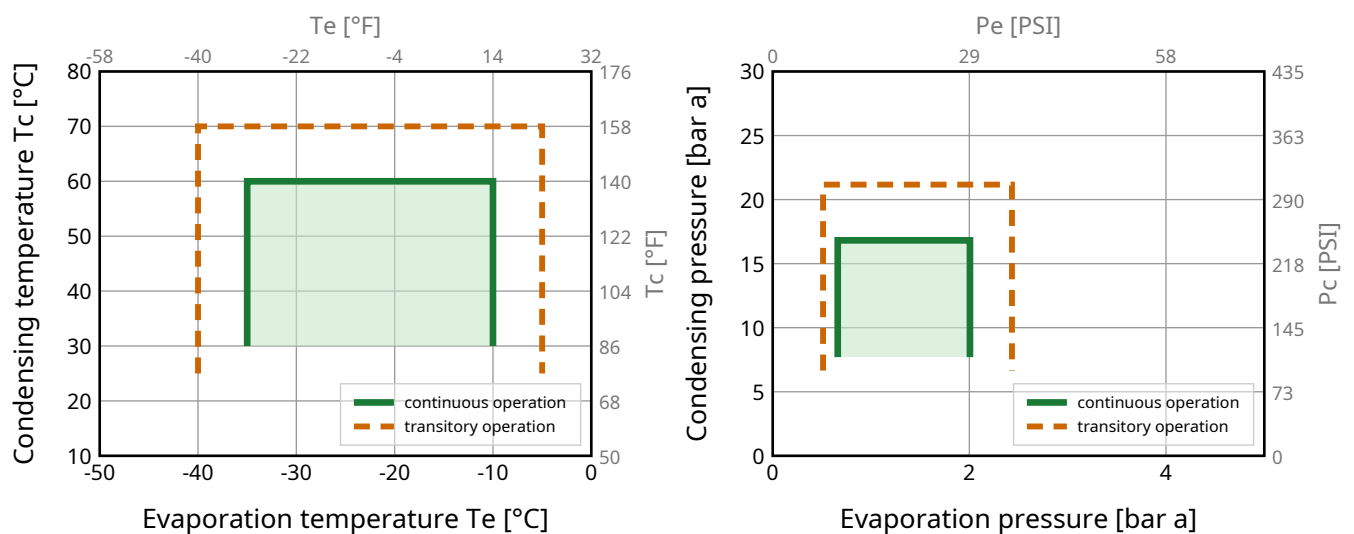
g protection screen for PTC 103N0476

Alternative components

a1 PTC starter (220V, 250Ohm, 6.3mm) 103N0011

b plastic cover 103N2010

Operation Pressure Range



Model
NL9FT

Configuration 3

Sales code:
105G6059

Standard Conditions

R134a, 220 V/50 Hz, RSIR, static

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°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	219	748	189	1.23	4.20	178	1.30	4.25	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	162	551	139	0.95	3.25	170	1.28	3.85	CECOMAF LBP
-35 -31	40 104	20 68	40 104	115	391	99	0.91	3.10	126	1.18	2.51	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	182	620	156	1.03	3.50	177	1.30	4.76	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	246	839	211	1.43	4.88	172	1.29	4.77	AHAM LBP
-25 -13	45 113	32 89.6	45 113	194	661	167	1.16	3.95	167	1.28	4.19	opt LBP

Performance Tables

R134a, 220 V/50 Hz, RSIR, static

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

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	107	366	92	0.84	2.88	127	1.19	2.31
-30	-22	146	497	125	1.00	3.41	146	1.23	3.14
-25	-13	194	661	167	1.16	3.95	167	1.28	4.19
-20	-4	253	863	217	1.33	4.54	190	1.34	5.48
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pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

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-25	-13	162	551	139	0.95	3.25	170	1.28	3.85
-20	-4	213	726	183	1.09	3.72	195	1.36	5.09
-15	5	275	939	237	1.24	4.22	223	1.45	6.61
-10	14	350	1194	301	1.39	4.75	252	1.55	8.44

Model

NL9FT

Configuration 4

Sales code:

105G6059

Configuration

Motor configuration	RSIR
Power supply (nominal)	208-230 V/60 Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254 V
Starting torque	LST
Approvals	VDE
Starting device type	PTC
Run capacitor	-/-
Start capacitor	-/-
RLA (rated load amps / 1s/ U(N))	-/-A

Ambient/ machine room temperatures minimum /maximum

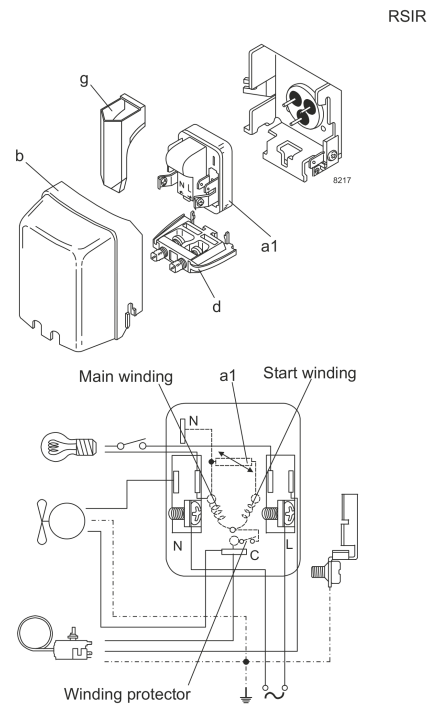
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

static

Electrical Accessories / Wiring Diagram


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Components

a1 PTC starter (220V, 250Ohm, 4.8mm) 103N0018

b plastic cover 103N2011

d cord relief 103N1010

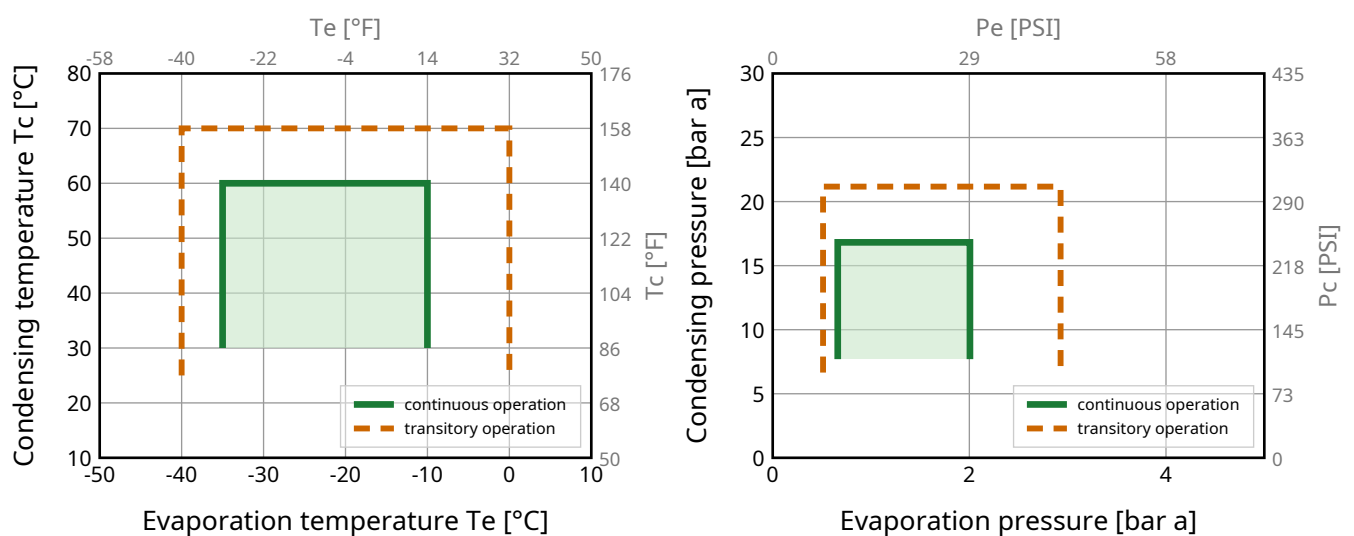
g protection screen for PTC 103N0476

Alternative components

a1 PTC starter (220V, 250Ohm, 6.3mm) 103N0011

b plastic cover 103N2010

Operation Pressure Range



Model
NL9FT

Configuration 4

Sales code:
105G6059

Standard Conditions

R134a, 220 V/60 Hz, RSIR, static

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°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	270	920	232	1.38	4.71	195	1.43	5.23	ASHRAE LBP
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-25 -13	45 113	32 89.6	45 113	236	805	203	1.29	4.42	182	1.40	5.10	opt LBP

Performance Tables

R134a, 220 V/60 Hz, RSIR, static

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

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
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-10	14	433	1477	372	1.50	5.11	289	1.79	10.44