

Model
NL7CLX

Sales code:
105F3710

Compressor Data

Refrigerant(s)	R404A / R452A
Refr. charge - tech. limit	400g / 14.11oz
Weight	10.40 kg / 22.93lbs
Displacement	7.27 cm³ / 0.44cu.in
Compressors on pallet	80



General - Configurations With NL7CLX

-	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSIR	RSIR	CSIR	RSIR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz	220-240 V/50 Hz	220-240 V/50 Hz
Number of phases	1	1	1	1
Voltage range	198-254 V	198-254 V	198-254 V	198-254 V
Approvals	VDE, UL, CCC	VDE, UL, CCC	VDE, CCC	VDE, CCC
Starting torque	HST	LST	HST	LST
Refrigerant	R404A	R404A	R452A	R452A
Application	LBP+MBP	LBP+MBP	LBP+MBP	LBP+MBP

Application Notes

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

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Compressor Design

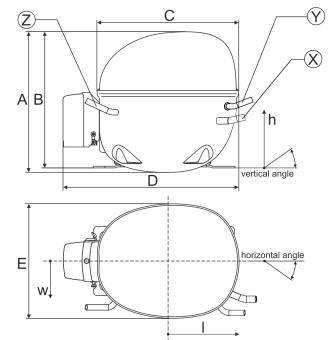
Oil type	POE	Winding resistance main	8.200 Ohm
Oil viscosity	32cSt	Winding resistance aux	14.70 Ohm
Oil quantity	298 / 10.08fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	2,310 cm ³ / 78.11fl.oz	Max. discharge temp.	130°C / 266°F
Motor protection	internal		

Compressor Dimensions

Housing

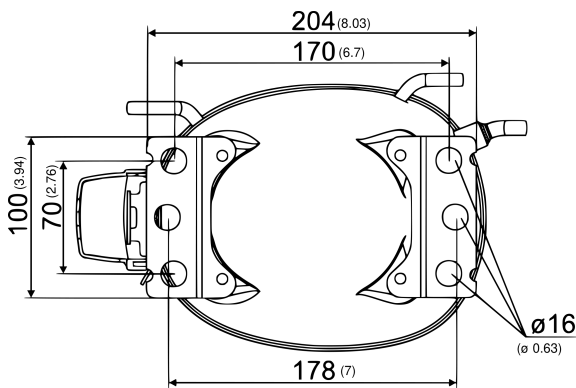
A Height	203mm / 7.99in
B Height	197mm / 7.76in
C Length shell	205mm / 8.07in
D Length w. cover	254mm / 10.00in
E Width	166mm / 6.54in

[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	FE/CU	FE/CU	FE/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

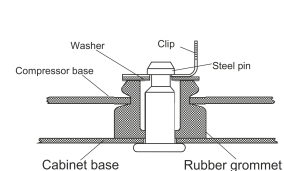
Mounting Accessories



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

Model
NL7CLX

Configuration 1

Sales code:
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Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R404A
Application	LBP+MBP
Voltage range	198-254 V
Starting torque	HST
Approvals	VDE, UL, CCC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	11 A
RLA (rated load amps / 1s/ U(N))	1.8 A
Cut in current (U(N))	14.5 A

Ambient/ machine room temperatures minimum /maximum

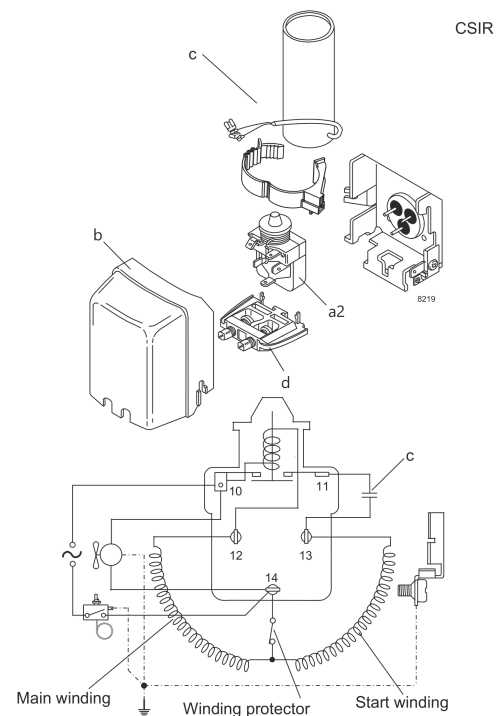
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 1,5m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components

a2 assy. relay 117U6002

c start capacitor (80µF) 117U5015

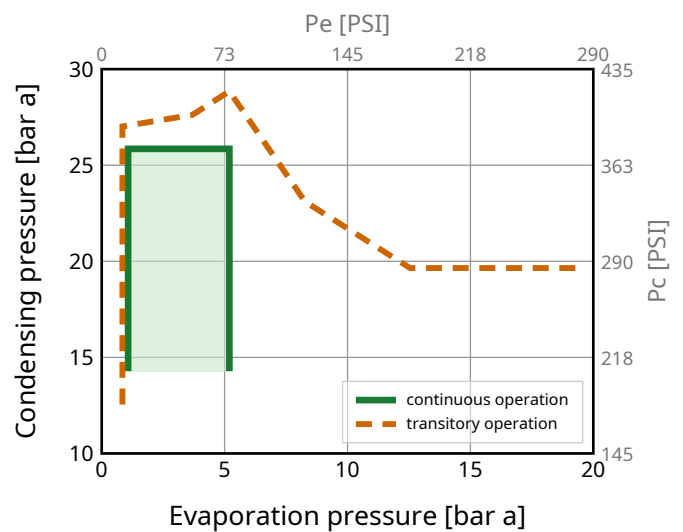
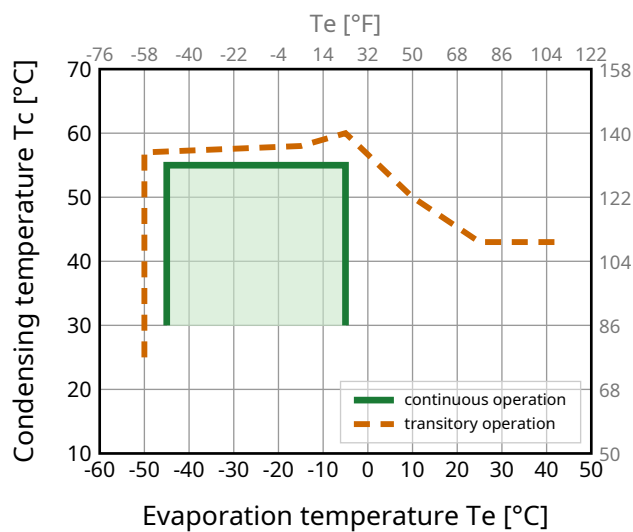
b plastic cover 103N2010

d cord relief 103N1010

Alternative components

b plastic cover 103N2011

Operation Pressure Range



Model
NL7CLX

Configuration 1

Sales code:
105F3710

Standard Conditions

R404A, 220 V/50 Hz, CSIR, fan 1,5m/s

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	388	1325	334	1.31	4.48	296	1.79	9.03	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	262	896	226	0.93	3.17	283	1.74	8.19	CECOMAF LBP
-35 -31	40 104	20 68	40 104	210	718	181	1.01	3.43	209	1.44	5.70	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	293	1001	252	1.01	3.44	291	1.75	10.35	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	441	1505	379	1.61	5.49	274	1.68	10.25	AHAM LBP
-25 -13	45 113	32 89.6	45 113	340	1160	292	1.24	4.24	274	1.68	9.15	opt LBP

Performance Tables

R404A, 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	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	102	348	88	0.65	2.21	158	1.31	2.70
-40	-40	146	497	125	0.78	2.67	186	1.38	3.87
-30	-22	263	898	226	1.08	3.70	243	1.56	7.05
-20	-4	430	1469	370	1.41	4.80	306	1.81	11.65
-10	14	657	2241	565	1.72	5.88	381	2.13	18.06
-5	23	796	2715	684	1.87	6.37	426	2.31	22.09

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

-45	-49	70	238	60	0.48	1.65	144	1.28	2.14
-40	-40	105	358	90	0.59	2.01	178	1.37	3.22
-30	-22	200	682	172	0.81	2.77	246	1.60	6.20
-20	-4	337	1150	290	1.05	3.58	321	1.90	10.58
-10	14	526	1795	453	1.29	4.39	409	2.26	16.82
-5	23	644	2196	553	1.40	4.77	460	2.47	20.80

Model
NL7CLX

Configuration 2

Sales code:
105F3710

Configuration

Motor configuration	RSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R404A
Application	LBP+MBP
Voltage range	198-254 V
Starting torque	LST
Approvals	VDE, UL, CCC
Starting device type	PTC
Run capacitor	-/-
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	11 A
RLA (rated load amps / 1s/ U(N))	1.8 A
Cut in current (U(N))	14.5 A

Ambient/ machine room temperatures minimum /maximum

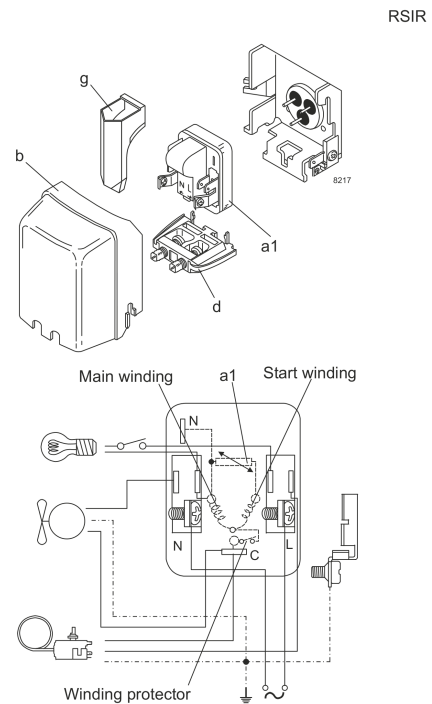
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

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

b plastic cover 103N2010

d cord relief 103N1010

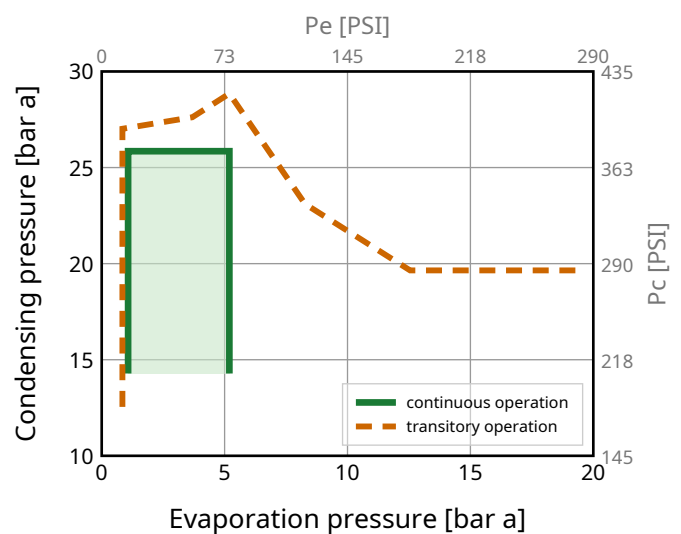
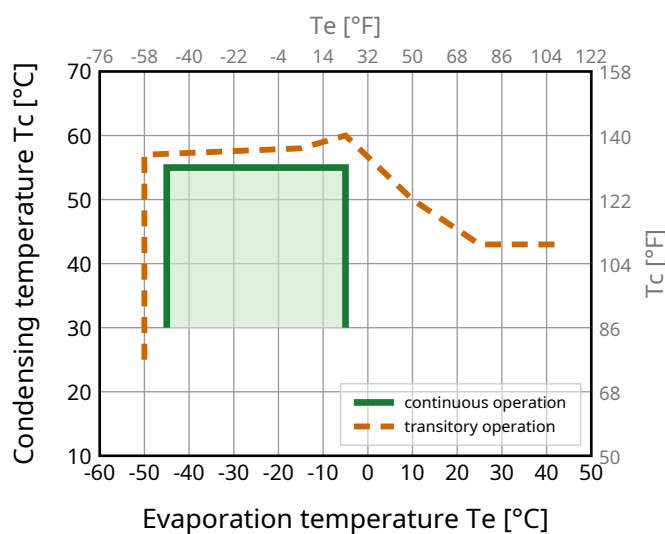
g protection screen for PTC 103N0476

Alternative components

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

b plastic cover 103N2011

Operation Pressure Range



Model
NL7CLX

Configuration 2

Sales code:
105F3710

Standard Conditions

R404A, 220 V/50 Hz, RSIR, fan 1,5m/s

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	388	1325	334	1.31	4.48	296	1.79	9.03	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	262	896	226	0.93	3.17	283	1.74	8.19	CECOMAF LBP
-35 -31	40 104	20 68	40 104	210	718	181	1.01	3.43	209	1.44	5.70	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	293	1001	252	1.01	3.44	291	1.75	10.35	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	441	1505	379	1.61	5.49	274	1.68	10.25	AHAM LBP
-25 -13	45 113	32 89.6	45 113	340	1160	292	1.24	4.24	274	1.68	9.15	opt LBP

Performance Tables

R404A, 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	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	102	348	88	0.65	2.21	158	1.31	2.70
-40	-40	146	497	125	0.78	2.67	186	1.38	3.87
-30	-22	263	898	226	1.08	3.70	243	1.56	7.05
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-10	14	657	2241	565	1.72	5.88	381	2.13	18.06
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pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-45	-49	70	238	60	0.48	1.65	144	1.28	2.14
-40	-40	105	358	90	0.59	2.01	178	1.37	3.22
-30	-22	200	682	172	0.81	2.77	246	1.60	6.20
-20	-4	337	1150	290	1.05	3.58	321	1.90	10.58
-10	14	526	1795	453	1.29	4.39	409	2.26	16.82
-5	23	644	2196	553	1.40	4.77	460	2.47	20.80

Model
NL7CLX

Configuration 3

Sales code:
105F3710

Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R452A
Application	LBP+MBP
Voltage range	198-254 V
Starting torque	HST
Approvals	VDE, CCC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	11 A
RLA (rated load amps / 1s/ U(N))	1.8 A
Cut in current (U(N))	14.5 A

Ambient/ machine room temperatures minimum /maximum

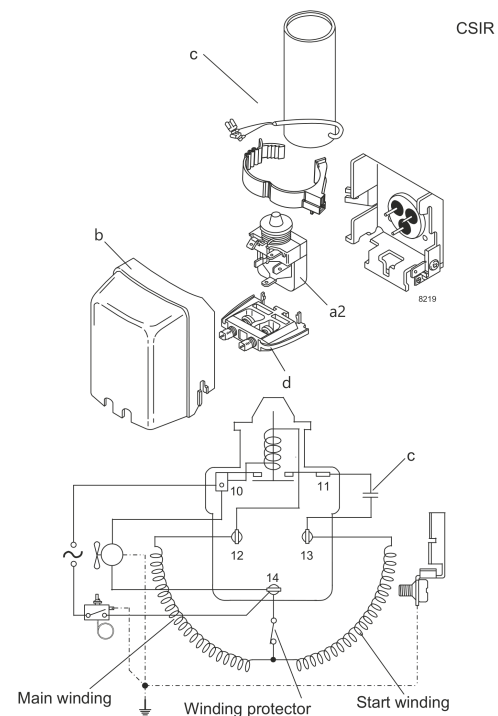
Ambient temperature range: 10 - 43°C / 50 - 109°F

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 assy. relay 117U6002

c start capacitor (80µF) 117U5015

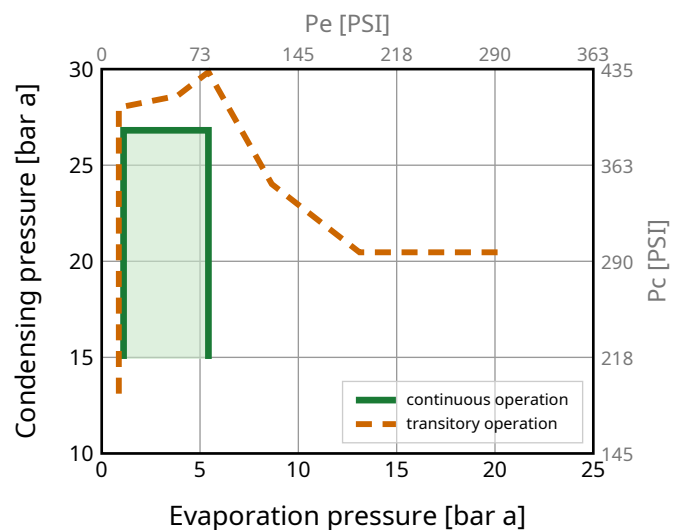
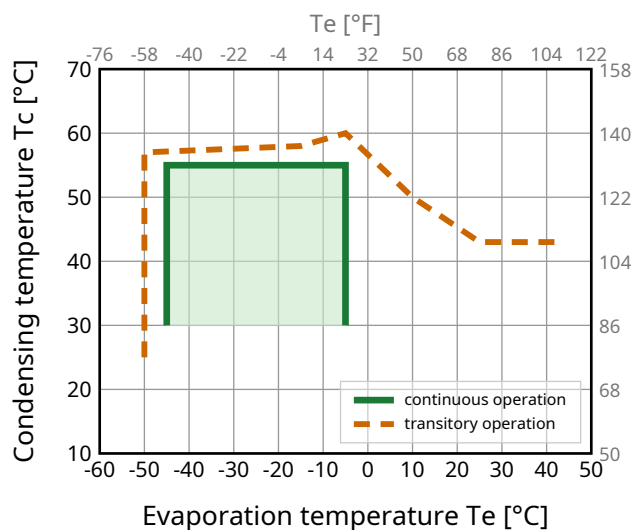
b plastic cover 103N2010

d cord relief 103N1010

Alternative components

b plastic cover 103N2011

Operation Pressure Range



Model
NL7CLX

Configuration 3

Sales code:
105F3710

Standard Conditions

R452A, 220 V/50 Hz, CSIR, fan 1,5m/s

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	356	1216	307	1.29	4.40	276	1.73	8.63	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	242	824	208	0.92	3.12	264	1.67	7.79	CECOMAF LBP
-35 -31	40 104	20 68	40 104	189	646	163	0.97	3.32	194	1.39	5.33	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	272	927	234	1.00	3.40	273	1.71	9.92	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	406	1386	349	1.57	5.37	258	1.65	9.83	AHAM LBP
-25 -13	45 113	32 89.6	45 113	313	1067	269	1.22	4.16	256	1.64	8.75	opt LBP

Performance Tables

R452A, 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	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	87	296	75	0.61	2.07	143	1.18	2.39
-40	-40	128	436	110	0.75	2.56	171	1.29	3.53
-30	-22	240	818	206	1.06	3.61	227	1.52	6.67
-20	-4	400	1363	344	1.38	4.72	289	1.77	11.23
-10	14	618	2110	532	1.70	5.81	363	2.08	17.66
-5	23	754	2572	648	1.85	6.31	407	2.26	21.73

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

-45	-49	57	195	49	0.45	1.53	128	1.11	1.81
-40	-40	90	309	78	0.56	1.92	161	1.25	2.88
-30	-22	181	619	156	0.79	2.71	228	1.53	5.82
-20	-4	313	1069	270	1.04	3.54	302	1.83	10.18
-10	14	498	1699	428	1.28	4.37	389	2.19	16.45
-5	23	613	2092	527	1.39	4.76	440	2.39	20.49

Model
NL7CLX

Configuration 4

Sales code:
105F3710

Configuration

Motor configuration	RSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R452A
Application	LBP+MBP
Voltage range	198-254 V
Starting torque	LST
Approvals	VDE, CCC
Starting device type	PTC
Run capacitor	-/-
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	11 A
RLA (rated load amps / 1s/ U(N))	1.8 A
Cut in current (U(N))	14.5 A

Ambient/ machine room temperatures minimum /maximum

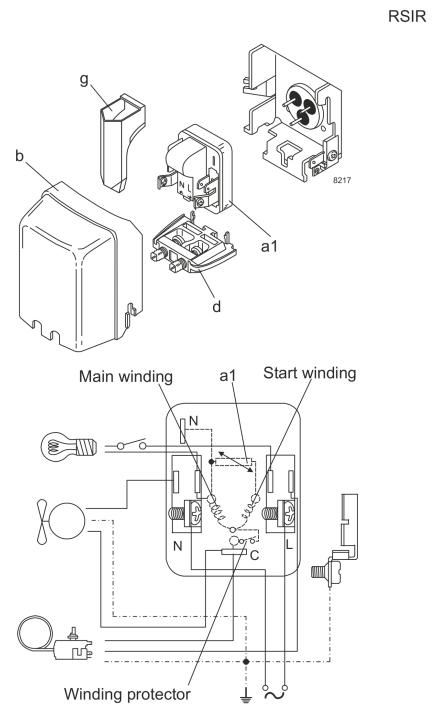
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

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

b plastic cover 103N2010

d cord relief 103N1010

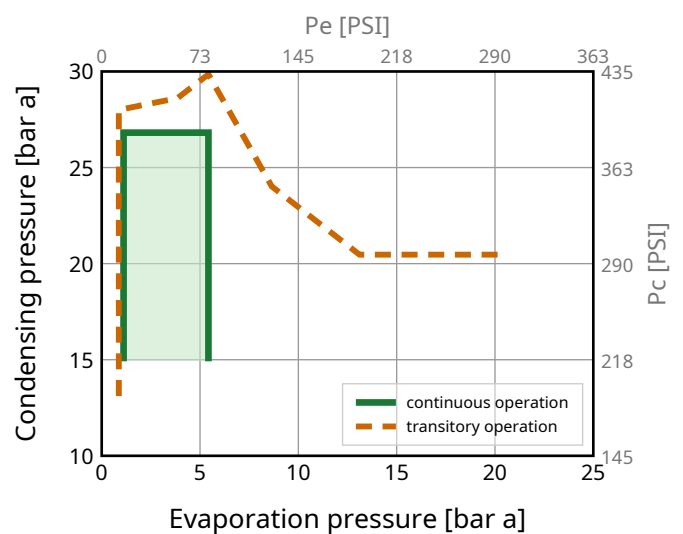
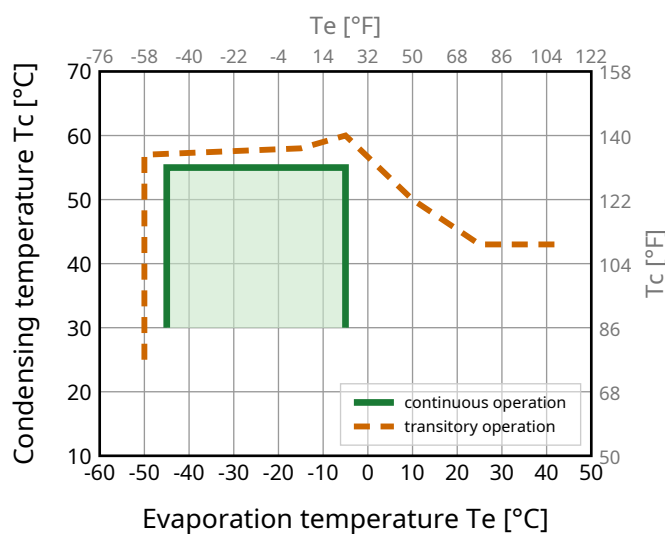
g protection screen for PTC 103N0476

Alternative components

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

b plastic cover 103N2011

Operation Pressure Range



Model
NL7CLX

Configuration 4

Sales code:
105F3710

Standard Conditions

R452A, 220 V/50 Hz, RSIR, fan 1,5m/s

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]	
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Performance Tables

R452A, 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	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
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pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-45	-49	57	195	49	0.45	1.53	128	1.11	1.81
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-30	-22	181	619	156	0.79	2.71	228	1.53	5.82
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