Single
Packs

Single Pack NL7CLX 220-240V 50Hz CSIR

Single pack code number: **195B4081**

Position	Title	Code	Amount
1	Compressor NL7CLX	105F3710	1
2	Starting relay	117U6002	1
3	Starting capacitor (80µF 220V, 6.3mm)	117U5015	1
4	Cord relief	103N1010	1
5	Cover	103N2010	1
6	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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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

Model
NL7CLX

Sales code:
105F3710

Compressor Design

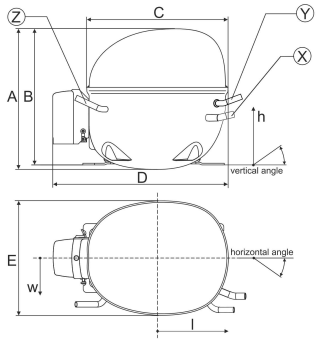
Oil type	**POE**	Winding resistance main	**8.2 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**14.7 Ohm**
Oil quantity	**298 / 10.08fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,310 cm3 / 78.11fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

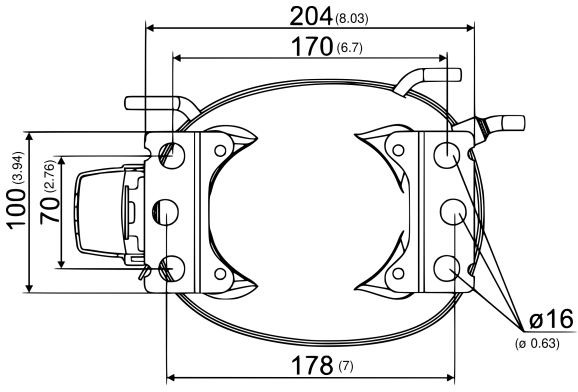
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



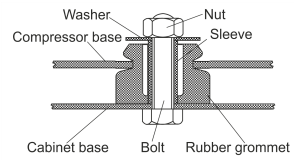
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	FE/CU	FE/CU	FE/CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in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

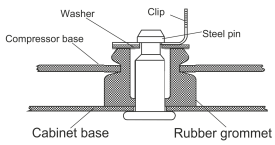


Dimensions in mm [in]

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
NL7CLX Configuration 1

Sales code:
105F3710

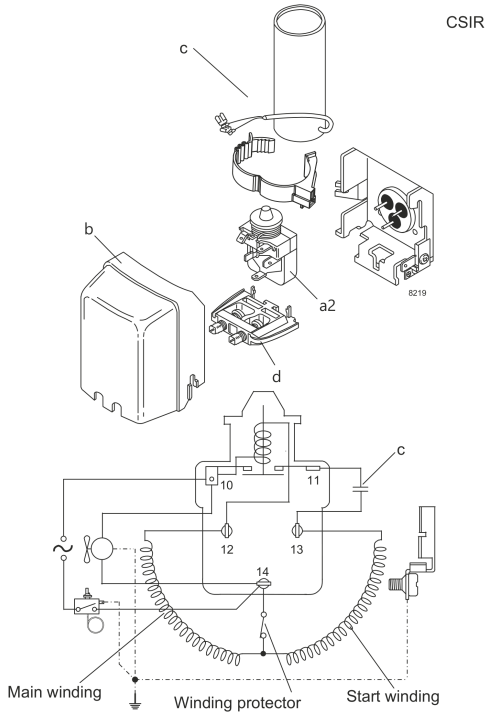
Configuration

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



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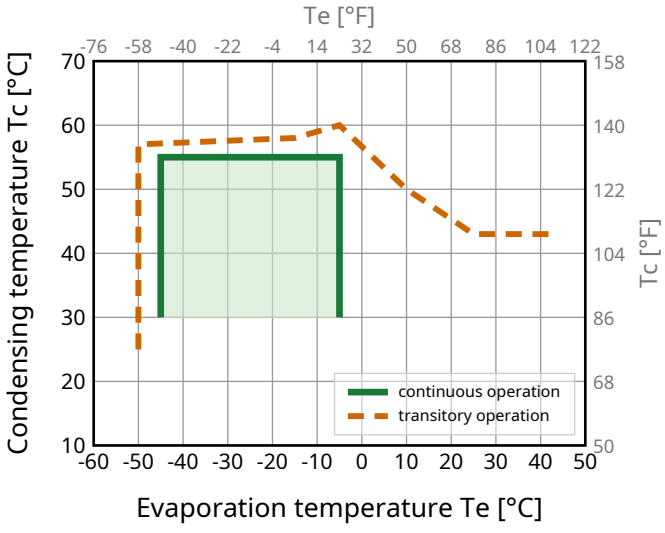
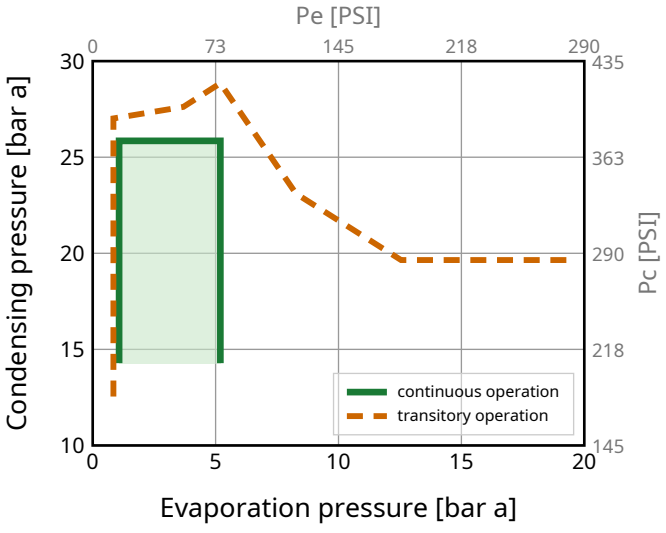
Components
a2 assy. relay 117U6002
c start capacitor (80µF) 117U5015
b plastic cover 103N2010
d cord relief 103N1010

Alternative components
b plastic cover 103N2011

Operation Pressure Range





Model
NL7CLX Configuration 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	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	**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**
-35 -31	45 113	32 89.6	45 113	**199**	679	171	**0.93**	3.17	214	1.46	5.30	**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	ṁ
[°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

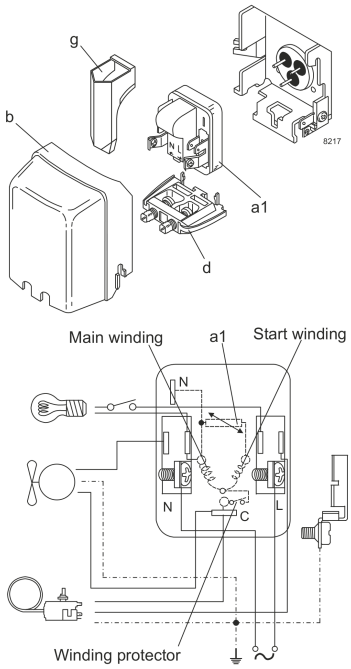
Motor configuration	**RSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R404A**
Application	**LBP+MBP**
Voltage range	**198-254 V**
Starting torque	**LST**
Approvals	**VDE, UL, CCC**
Starting device type	**PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ 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

RSIR



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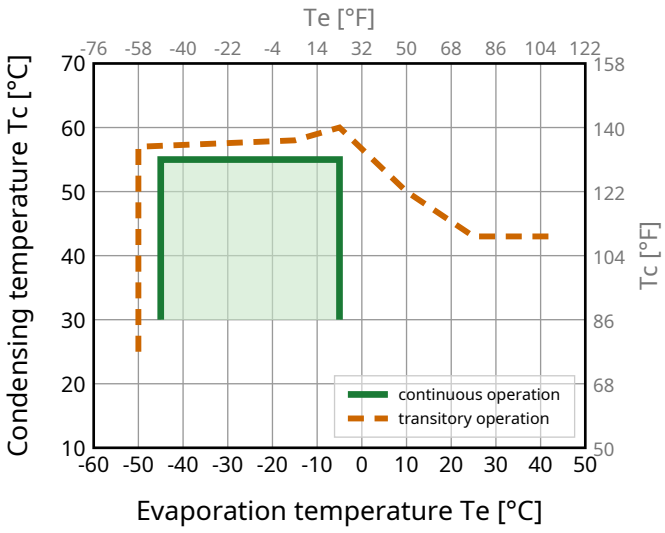
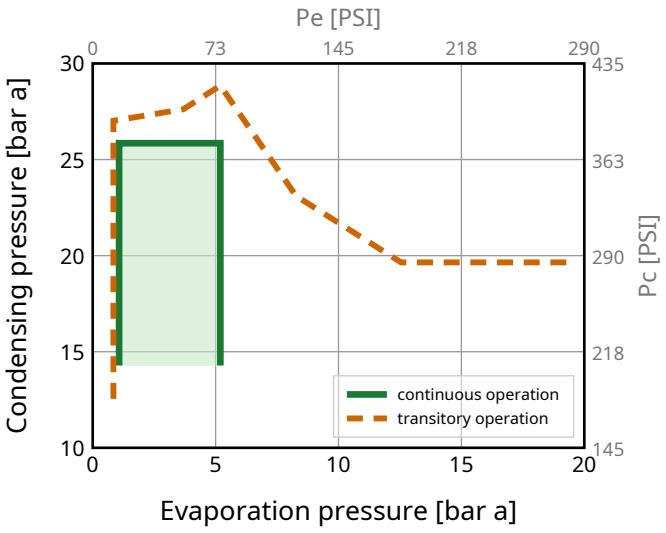
Components
a1 PTC starter (220V, 25Ohm, 4.8mm) 103N0018
b plastic cover 103N2010
d cord relief 103N1010
g protection screen for PTC 103N0476

Alternative components
a1 PTC starter (220V, 25Ohm, 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	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	**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**
-35 -31	45 113	32 89.6	45 113	**199**	679	171	**0.93**	3.17	214	1.46	5.30	**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	ṁ
[°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 3

Sales code:
105F3710

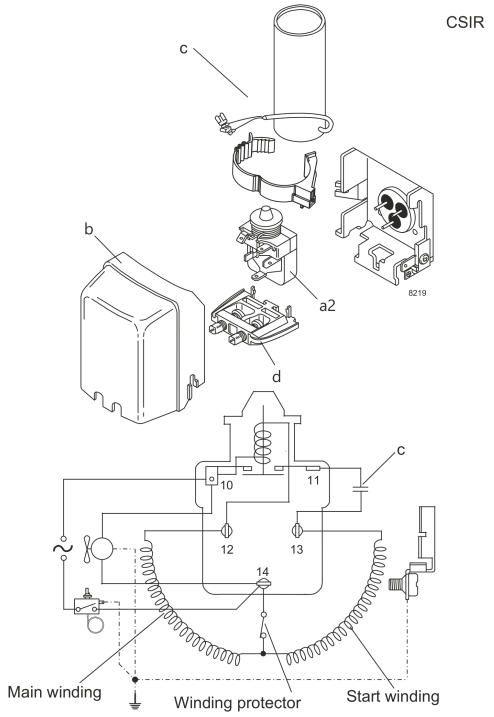
Configuration

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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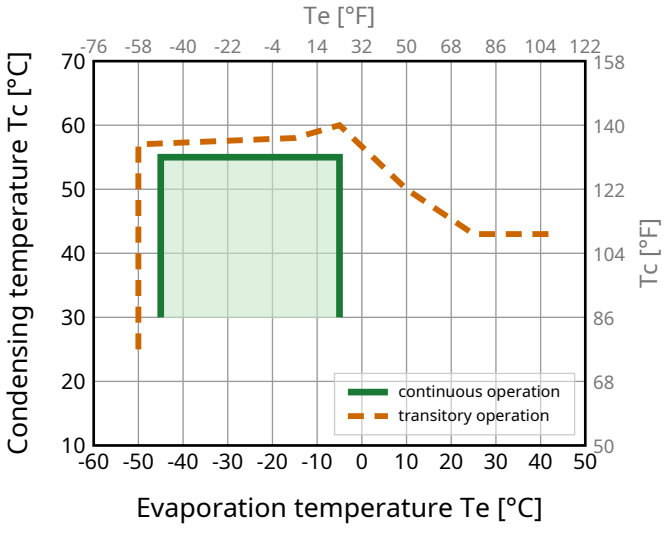
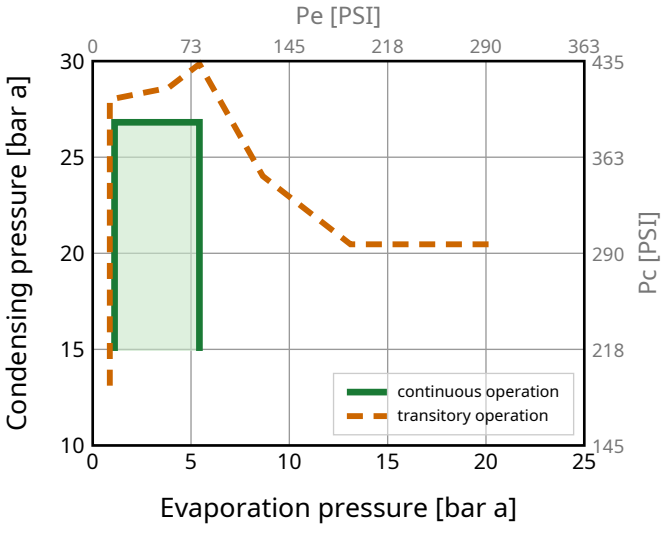
Components
a2 assy. relay 117U6002
c start capacitor (80µF) 117U5015
b plastic cover 103N2010
d cord relief 103N1010

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	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	**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**
-35 -31	45 113	32 89.6	45 113	**178**	609	153	**0.90**	3.07	198	1.41	4.94	**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	ṁ
[°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

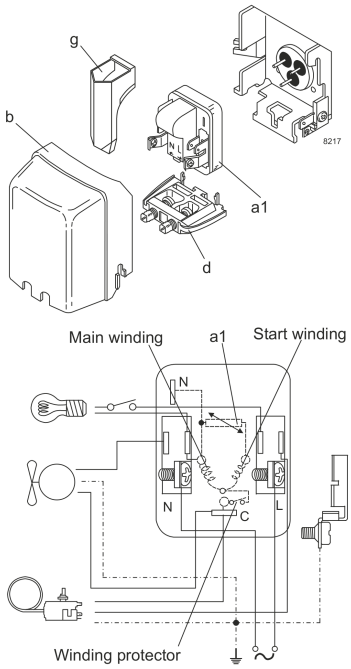
Motor configuration	**RSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R452A**
Application	**LBP+MBP**
Voltage range	**198-254 V**
Starting torque	**LST**
Approvals	**VDE, CCC**
Starting device type	**PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ U(N))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

RSIR



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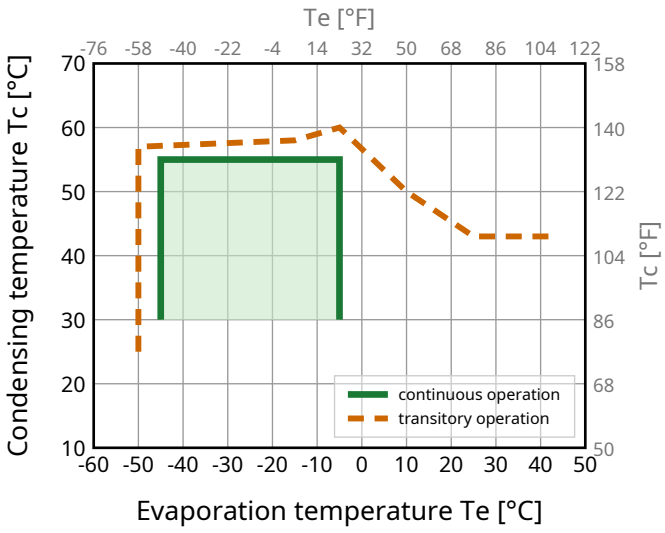
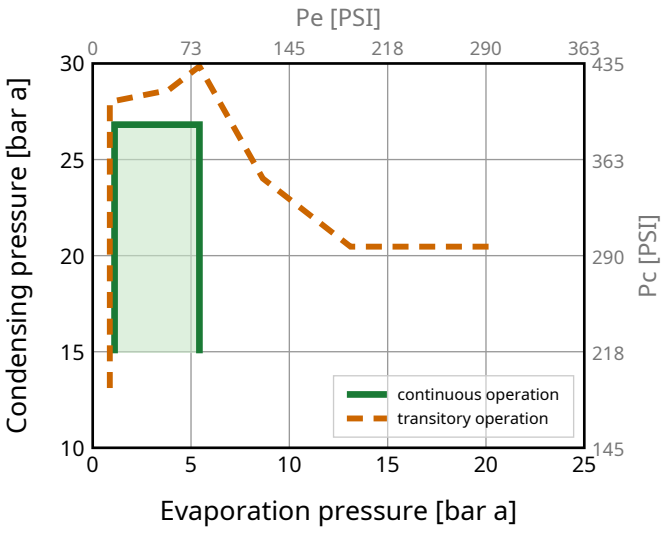
Components
a1 PTC starter (220V, 25Ohm, 4.8mm) 103N0018
b plastic cover 103N2010
d cord relief 103N1010
g protection screen for PTC 103N0476

Alternative components
a1 PTC starter (220V, 25Ohm, 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	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	**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**
-35 -31	45 113	32 89.6	45 113	**178**	609	153	**0.90**	3.07	198	1.41	4.94	**opt LBP**

Performance Tables

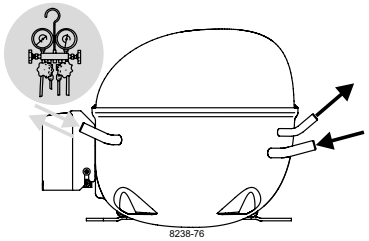
R452A, 220 V/50 Hz, RSIR, fan 1,5m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°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



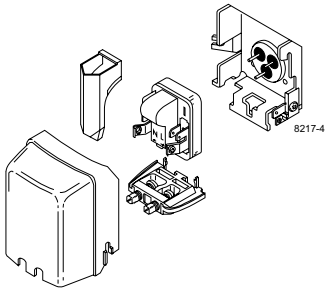
NL Compressors

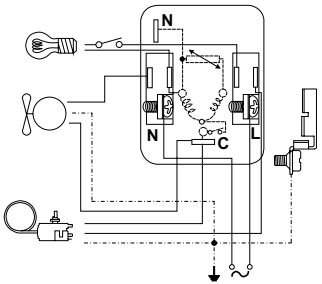
SECOP

Keep electrical equipment clear from oil, chemicals, and water

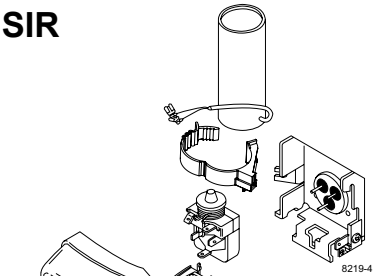
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

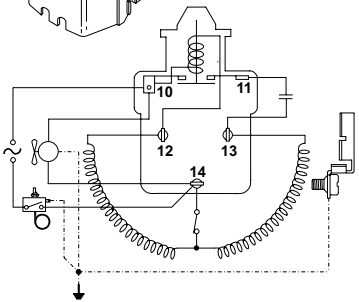
RSIR



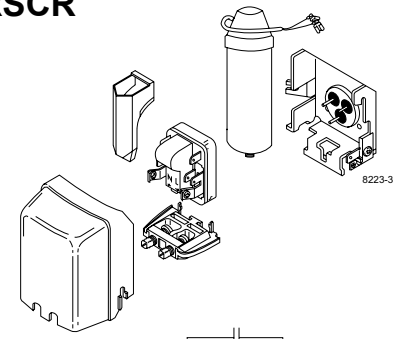


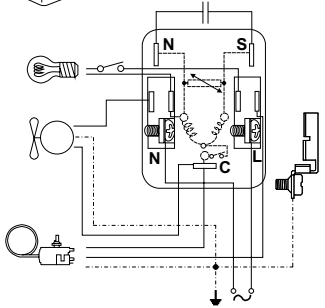
CSIR

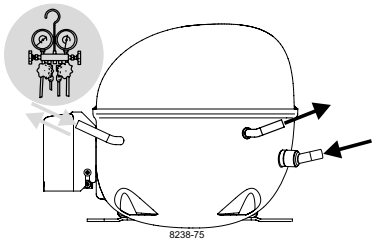




RSCR







NL Compressors

SECOP

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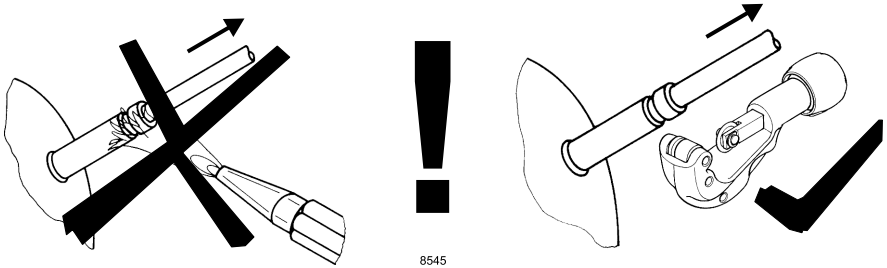
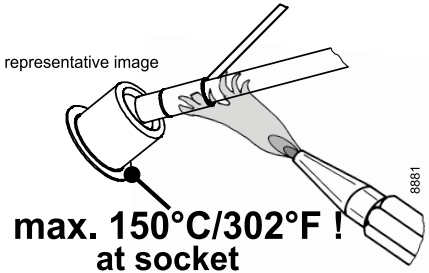
Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)



Brazing on Suction Connectors (Direct Intake)

representative image



! max. 150°C/302°F ! at socket

brazing solder: phosphor (LP7) or silver

Refer to Product Bulletin:
Brazing on Suction Connectors (Compressors with Direct Suction Intake)

Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. www.secop.com**