Single
Packs

Single Pack NL8.4CLX 220-240V 50Hz CSIR

Single pack code number: **195B4083**

Position	Title	Code	Amount
1	Compressor NL8.4CLX	105F3800	1
2	Starting relay	117U6003	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
NL8.4CLX

Sales code:
105F3800

Compressor Data

Refrigerant(s)	**R404A / R452A**
Refr. charge - tech. limit	**400g / 14.11oz**
Weight	**10.40 kg / 22.93lbs**
Displacement	**8.35 cm3 / 0.51cu.in**
Compressors on pallet	**80**

General – Configurations With NL8.4CLX

–	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	RSIR	CSIR	RSIR	CSIR
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	CCC, EAC	CCC, EAC	EAC	EAC
Starting torque	LST	HST	LST	HST
Refrigerant	R404A	R404A	R452A	R452A
Application	LBP	LBP	LBP	LBP

Application Notes

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

Model
NL8.4CLX

Sales code:
105F3800

Compressor Design

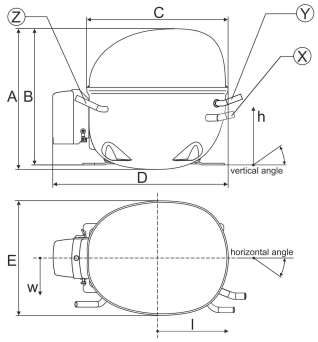
Oil type	**POE**	Winding resistance main	**6.1 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**16 Ohm**
Oil quantity	**300 / 10.14fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,310 cm3 / 78.11fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

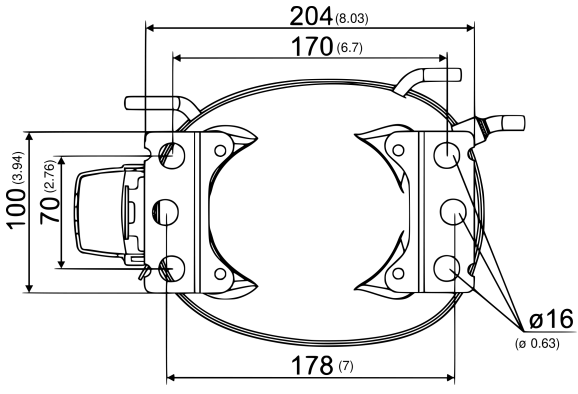
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



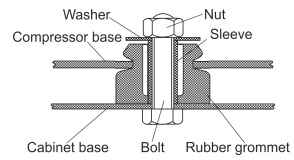
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in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

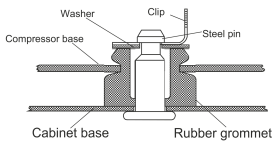


Dimensions in mm [in]

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

NL8.4CLX Configuration 1

Sales code:

105F3800

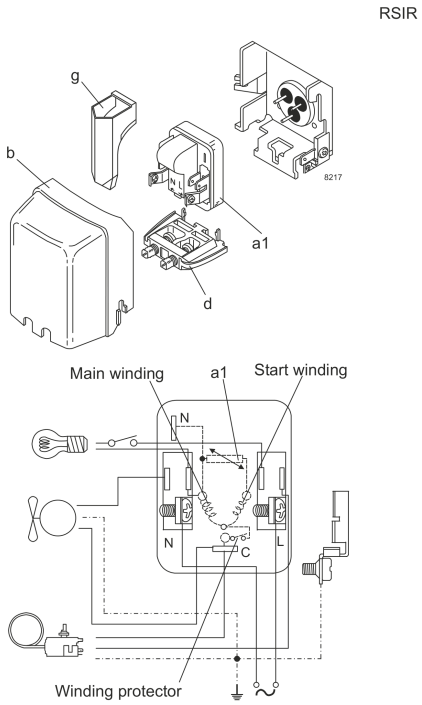
Configuration

Motor configuration	**RSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R404A**
Application	**LBP**
Voltage range	**198-254 V**
Starting torque	**LST**
Approvals	**CCC, EAC**
Starting device type	**PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ U(N))	**13.7 A**
RLA (rated load amps / 1s/ U(N))	**2.5 A**
Cut in current (U(N))	**13.7 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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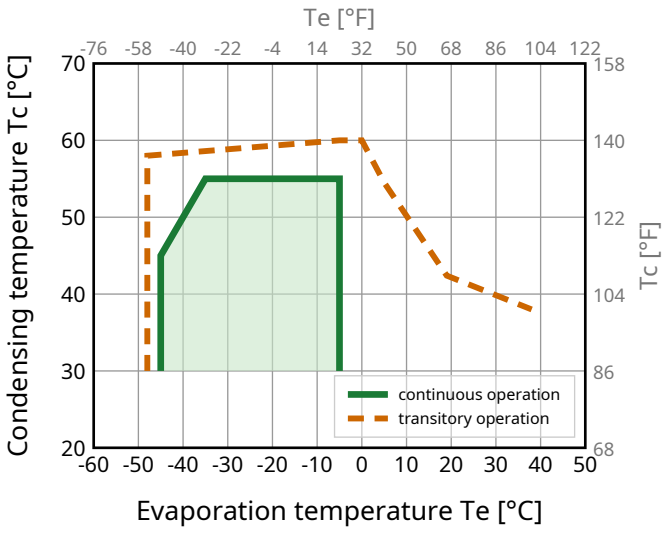
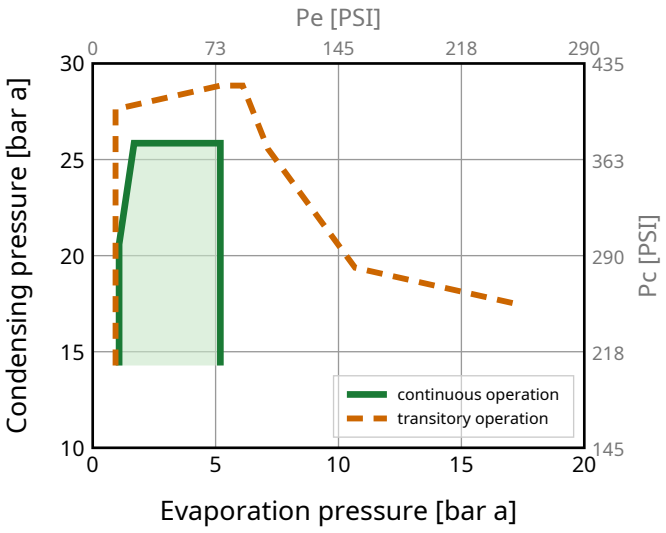
Components
a1 PTC starter (220V, 25Ohm, 4.8mm) 103N0018
b plastic cover 103N2010
d cord relief 103N1010
g protection screen for PTC 103N0476

Alternative components
a1 PTC starter (220V, 25Ohm, 6.3mm) 103N0011
b plastic cover 103N2011

Operation Pressure Range





Model

NL8.4CLX Configuration 1

Sales code:

105F3800

Standard Conditions

R404A, 220 V/50 Hz, RSIR, 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	**422**	1441	363	**1.28**	4.36	331	2.23	9.82	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**286**	974	246	**0.90**	3.08	316	2.17	8.91	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**229**	781	197	**0.98**	3.36	232	1.87	6.20	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**319**	1089	274	**0.98**	3.35	325	2.19	11.26	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**480**	1637	413	**1.57**	5.34	306	2.11	11.15	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**216**	738	186	**0.91**	3.09	239	1.89	5.77	**opt LBP**

Performance Tables

R404A, 220 V/50 Hz, RSIR, 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]
-45	-49	**111**	379	95	**0.64**	2.17	174	1.74	2.94
-40	-40	**158**	540	136	**0.77**	2.62	207	1.81	4.21
-30	-22	**286**	978	246	**1.06**	3.60	271	1.99	7.67
-20	-4	**468**	1598	403	**1.37**	4.66	343	2.25	12.68
-10	14	**715**	2439	615	**1.67**	5.70	428	2.57	19.65
-5	23	**866**	2954	745	**1.81**	6.17	479	2.76	24.03

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

-45	-49	**76**	259	65	**0.48**	1.63	159	1.71	2.33
-40	-40	**114**	389	98	**0.58**	1.97	198	1.80	3.50
-30	-22	**217**	742	187	**0.79**	2.70	275	2.03	6.74
-20	-4	**367**	1251	315	**1.02**	3.47	360	2.33	11.51
-10	14	**572**	1953	492	**1.25**	4.25	460	2.71	18.30
-5	23	**700**	2389	602	**1.35**	4.61	518	2.92	22.64

Model
NL8.4CLX Configuration 2

Sales code:
105F3800

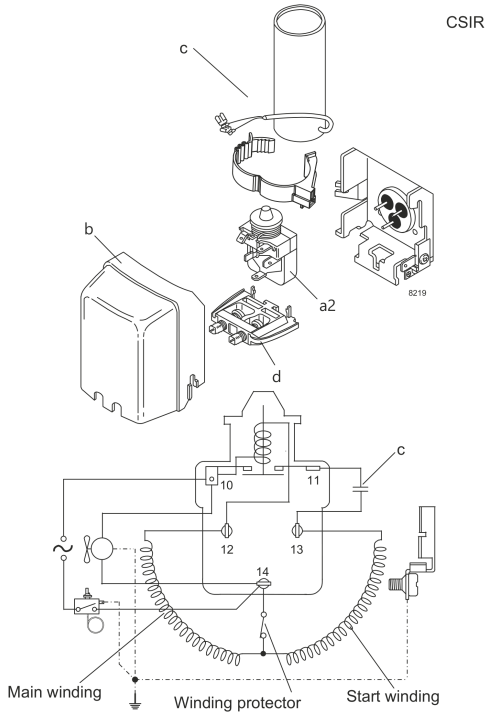
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R404A**
Application	**LBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**CCC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**13.7 A**
RLA (rated load amps / 1s/ U(N))	**2.5 A**
Cut in current (U(N))	**13.7 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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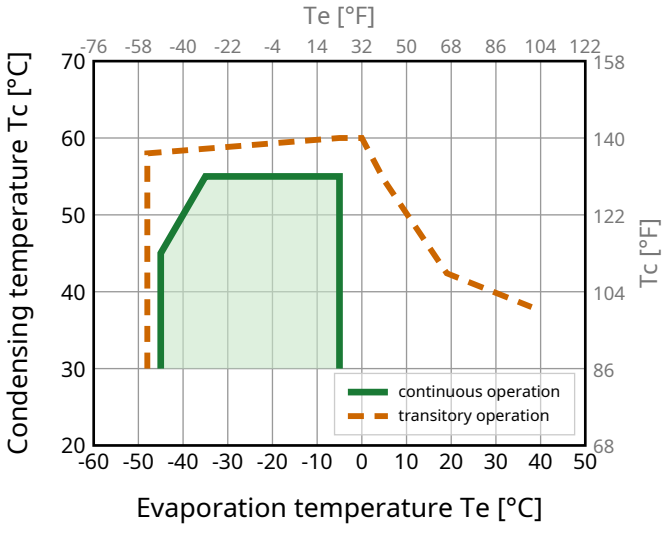
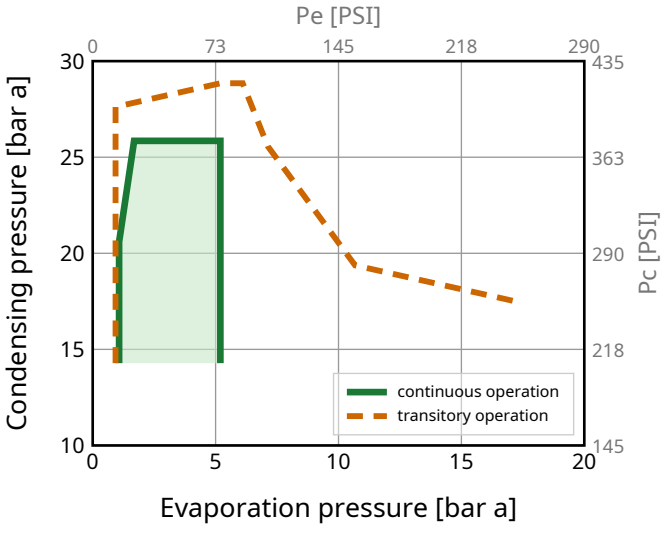
Components
a2 assy. relay 117U6003
c start capacitor (80µF) 117U5015
b plastic cover 103N2010
d cord relief 103N1010

Alternative components
b plastic cover 103N2011

Operation Pressure Range





Model

NL8.4CLX Configuration 2

Sales code:

105F3800

Standard Conditions

R404A, 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	**422**	1441	363	**1.28**	4.36	331	2.23	9.82	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**286**	974	246	**0.90**	3.08	316	2.17	8.91	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**229**	781	197	**0.98**	3.36	232	1.87	6.20	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**319**	1089	274	**0.98**	3.35	325	2.19	11.26	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**480**	1637	413	**1.57**	5.34	306	2.11	11.15	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**216**	738	186	**0.91**	3.09	239	1.89	5.77	**opt LBP**

Performance Tables

R404A, 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]
-45	-49	**111**	379	95	**0.64**	2.17	174	1.74	2.94
-40	-40	**158**	540	136	**0.77**	2.62	207	1.81	4.21
-30	-22	**286**	978	246	**1.06**	3.60	271	1.99	7.67
-20	-4	**468**	1598	403	**1.37**	4.66	343	2.25	12.68
-10	14	**715**	2439	615	**1.67**	5.70	428	2.57	19.65
-5	23	**866**	2954	745	**1.81**	6.17	479	2.76	24.03

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

-45	-49	**76**	259	65	**0.48**	1.63	159	1.71	2.33
-40	-40	**114**	389	98	**0.58**	1.97	198	1.80	3.50
-30	-22	**217**	742	187	**0.79**	2.70	275	2.03	6.74
-20	-4	**367**	1251	315	**1.02**	3.47	360	2.33	11.51
-10	14	**572**	1953	492	**1.25**	4.25	460	2.71	18.30
-5	23	**700**	2389	602	**1.35**	4.61	518	2.92	22.64

Model
NL8.4CLX Configuration 3

Sales code:
105F3800

Configuration

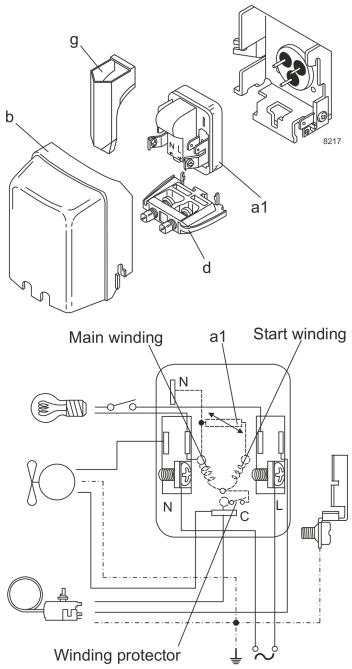
Motor configuration	**RSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R452A**
Application	**LBP**
Voltage range	**198-254 V**
Starting torque	**LST**
Approvals	**EAC**
Starting device type	**PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ U(N))	**13.7 A**
RLA (rated load amps / 1s/ U(N))	**2.5 A**
Cut in current (U(N))	**13.7 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram

RSIR



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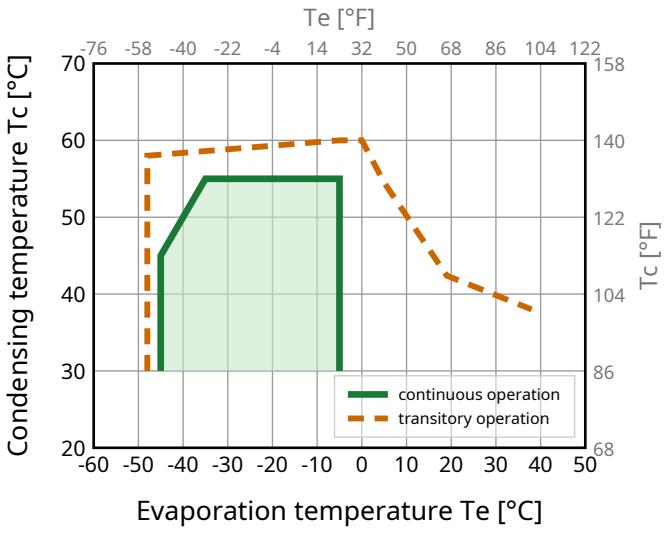
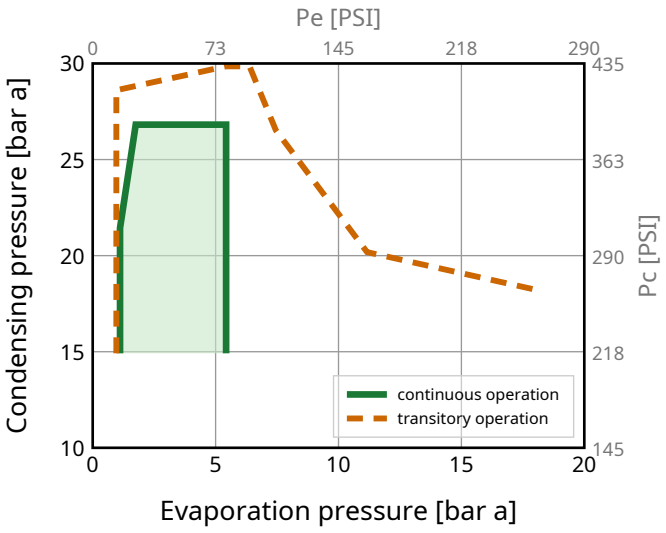
Components
a1 PTC starter (220V, 25Ohm, 4.8mm) 103N0018
b plastic cover 103N2010
d cord relief 103N1010
g protection screen for PTC 103N0476

Alternative components
a1 PTC starter (220V, 25Ohm, 6.3mm) 103N0011
b plastic cover 103N2011

Operation Pressure Range





Model

NL8.4CLX Configuration 3

Sales code:

105F3800

Standard Conditions

R452A, 220 V/50 Hz, RSIR, 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	**388**	1325	334	**1.26**	4.30	308	1.86	9.39	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**263**	897	226	**0.90**	3.06	294	1.81	8.48	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**206**	703	177	**0.96**	3.29	214	1.60	5.80	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**296**	1009	254	**0.97**	3.33	304	1.85	10.80	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**442**	1509	380	**1.54**	5.26	287	1.81	10.70	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**194**	663	167	**0.89**	3.03	218	1.62	5.38	**opt LBP**

Performance Tables

R452A, 220 V/50 Hz, RSIR, 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]
-45	-49	**94**	322	81	**0.61**	2.08	155	1.50	2.60
-40	-40	**139**	475	120	**0.75**	2.55	187	1.55	3.85
-30	-22	**261**	890	224	**1.04**	3.55	251	1.70	7.26
-20	-4	**435**	1484	374	**1.35**	4.62	322	1.92	12.23
-10	14	**673**	2298	579	**1.66**	5.65	406	2.23	19.23
-5	23	**821**	2800	706	**1.80**	6.13	457	2.43	23.66

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

-45	-49	**62**	212	53	**0.45**	1.55	137	1.48	1.97
-40	-40	**98**	336	85	**0.56**	1.91	176	1.53	3.13
-30	-22	**197**	674	170	**0.78**	2.66	253	1.70	6.33
-20	-4	**341**	1165	294	**1.01**	3.46	337	1.96	11.08
-10	14	**542**	1850	466	**1.24**	4.24	436	2.36	17.92
-5	23	**668**	2278	574	**1.35**	4.61	494	2.62	22.32

Model
NL8.4CLX Configuration 4

Sales code:
105F3800

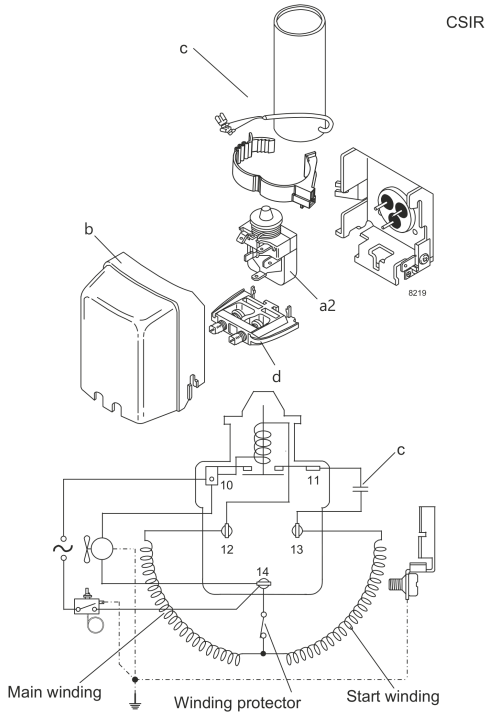
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R452A**
Application	**LBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**13.7 A**
RLA (rated load amps / 1s/ U(N))	**2.5 A**
Cut in current (U(N))	**13.7 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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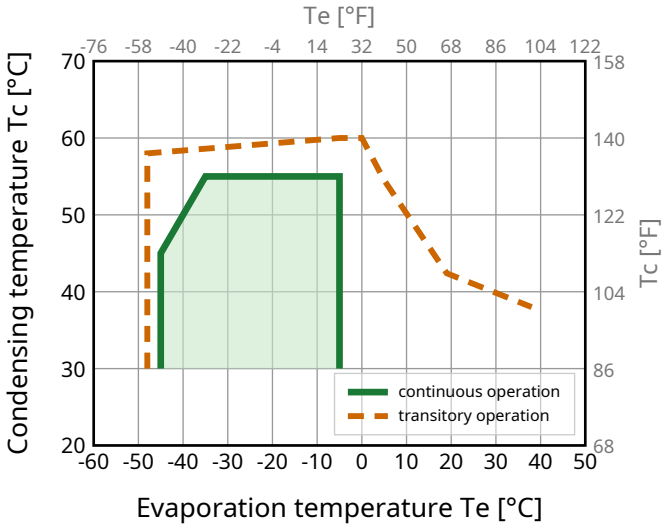
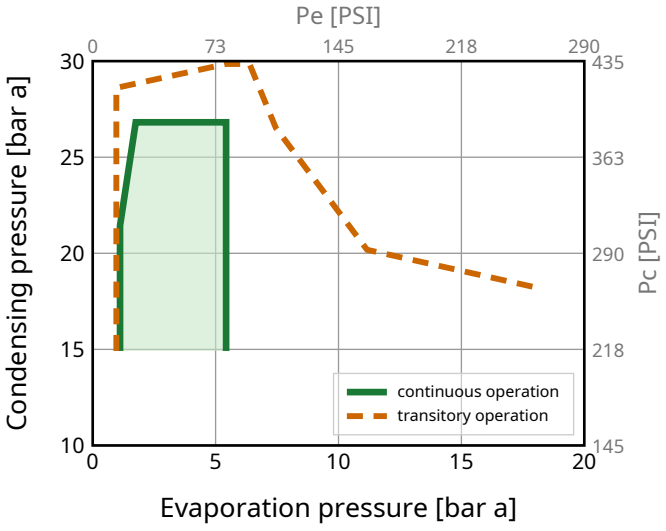
Components
a2 assy. relay 117U6003
c start capacitor (80µF) 117U5015
b plastic cover 103N2010
d cord relief 103N1010

Alternative components
b plastic cover 103N2011

Operation Pressure Range





Model

NL8.4CLX Configuration 4

Sales code:

105F3800

Standard Conditions

R452A, 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	**388**	1325	334	**1.26**	4.30	308	1.86	9.39	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**263**	897	226	**0.90**	3.06	294	1.81	8.48	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**206**	703	177	**0.96**	3.29	214	1.60	5.80	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**296**	1009	254	**0.97**	3.33	304	1.85	10.80	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**442**	1509	380	**1.54**	5.26	287	1.81	10.70	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**194**	663	167	**0.89**	3.03	218	1.62	5.38	**opt LBP**

Performance Tables

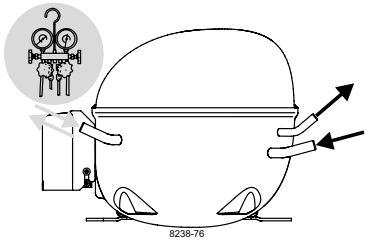
R452A, 220 V/50 Hz, CSIR, fan 3m/s

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]
-45	-49	**94**	322	81	**0.61**	2.08	155	1.50	2.60
-40	-40	**139**	475	120	**0.75**	2.55	187	1.55	3.85
-30	-22	**261**	890	224	**1.04**	3.55	251	1.70	7.26
-20	-4	**435**	1484	374	**1.35**	4.62	322	1.92	12.23
-10	14	**673**	2298	579	**1.66**	5.65	406	2.23	19.23
-5	23	**821**	2800	706	**1.80**	6.13	457	2.43	23.66

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

-45	-49	**62**	212	53	**0.45**	1.55	137	1.48	1.97
-40	-40	**98**	336	85	**0.56**	1.91	176	1.53	3.13
-30	-22	**197**	674	170	**0.78**	2.66	253	1.70	6.33
-20	-4	**341**	1165	294	**1.01**	3.46	337	1.96	11.08
-10	14	**542**	1850	466	**1.24**	4.24	436	2.36	17.92
-5	23	**668**	2278	574	**1.35**	4.61	494	2.62	22.32



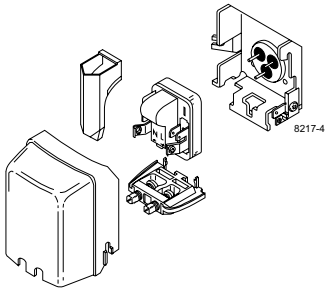
NL Compressors

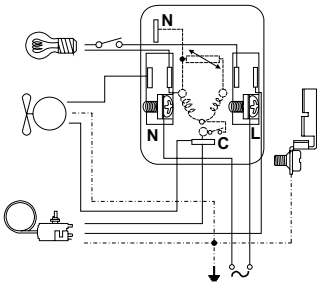
SECOP

Keep electrical equipment clear from oil, chemicals, and water

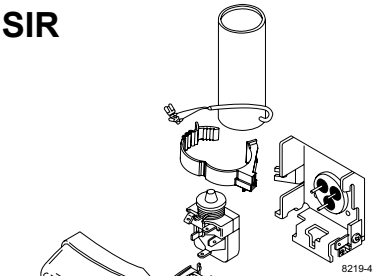
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

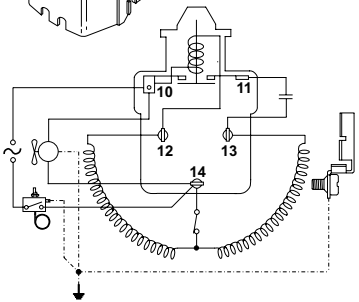
RSIR



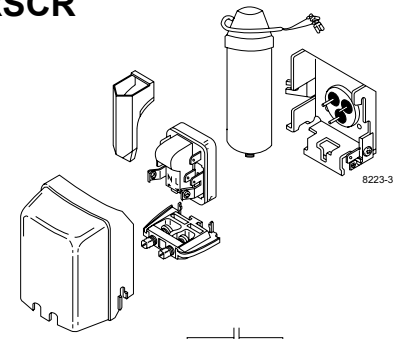


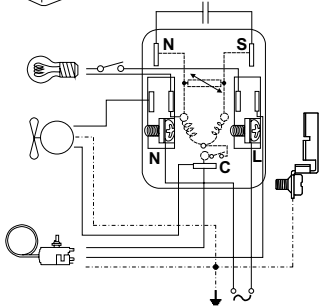
CSIR

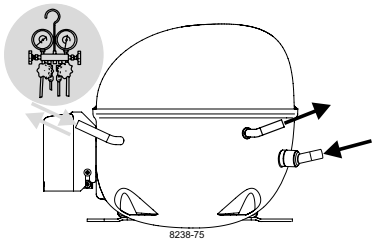




RSCR







NL Compressors

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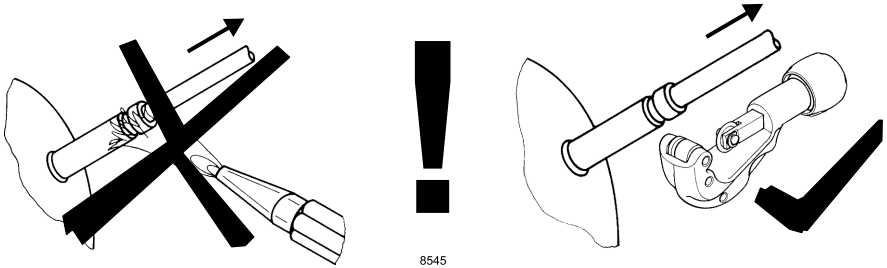
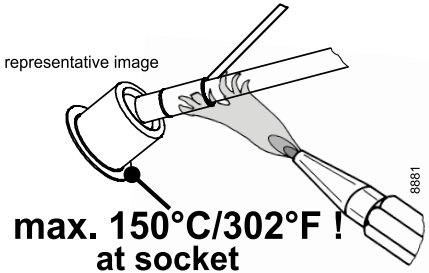
Service/Repair – R290, R600a, R170, R1270, R1234yf

(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**