Single
Packs

Single Pack NL8F 220-240V 50Hz RSIR

Single pack code number: **195B4173**

Position	Title	Code	Amount
1	Compressor NL8F	105G6822	1
2	PTC starting device (220V, 25Ohm, 6.3mm)	103N0011	1
3	Protection screen for PTC	103N0476	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
NL8F

Sales code:
105G6822

Compressor Data

Refrigerant(s)	**R134a**
Refr. charge - tech. limit	**400g / 14.11oz**
Weight	**9.80 kg / 21.61lbs**
Displacement	**7.95 cm3 / 0.49cu.in**
Compressors on pallet	**80**

General – Configurations With NL8F

–	**Conf. 1**	**Conf. 2**
Motor configuration	CSIR	RSIR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz
Number of phases	1	1
Voltage range	198-254 V	198-254 V
Approvals	VDE, EAC	VDE, EAC
Starting torque	HST	LST
Refrigerant	R134a	R134a
Application	LBP	LBP

Application Notes

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

Model
NL8F

Sales code:
105G6822

Compressor Design

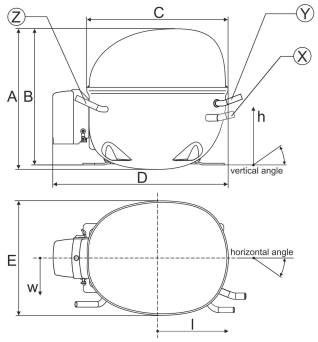
Oil type	**POE**	Winding resistance main	**11 Ohm**
Oil viscosity	**19,2cSt**	Winding resistance aux	**13 Ohm**
Oil quantity	**265 / 8.96fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,230 cm3 / 75.41fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

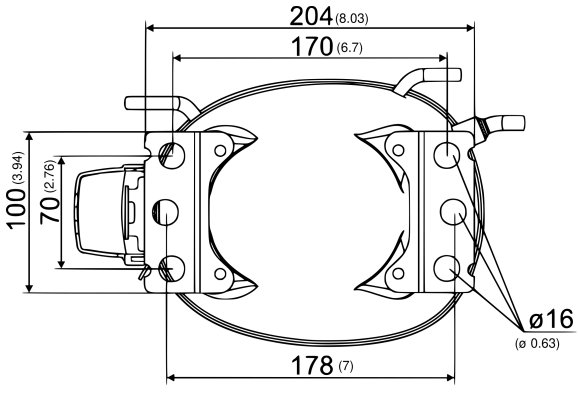
A Height	**197mm / 7.76in**
B Height	**191mm / 7.52in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



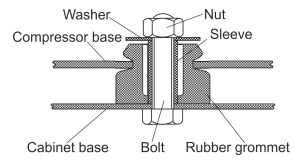
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 6.11–6.29 / 0.24–0.25in	øi 5.12–5.22 / 0.20–0.21in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in	-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

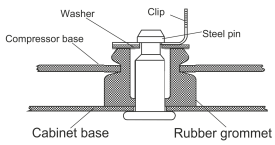


Dimensions in mm [in]

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
NL8F Configuration 1

Sales code:
105G6822

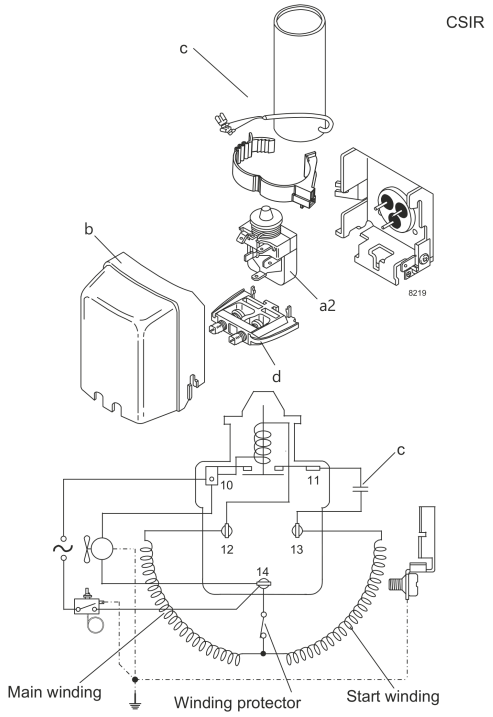
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**LBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**VDE, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**8.7 A**
Cut in current (U(N))	**10.9 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
static

Electrical Accessories / Wiring Diagram



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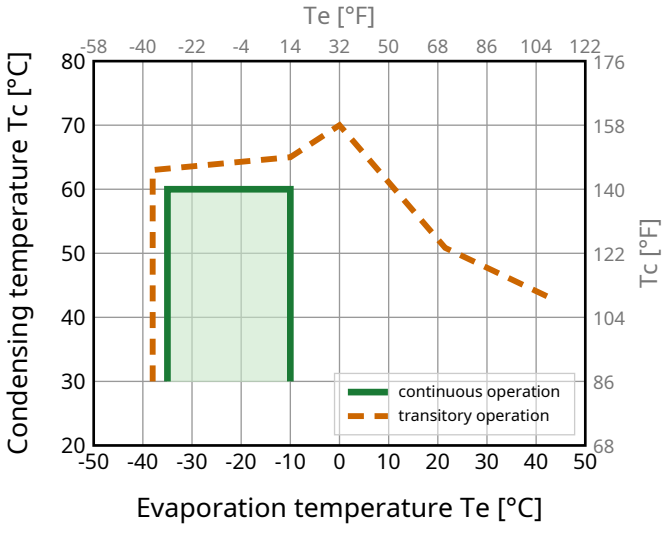
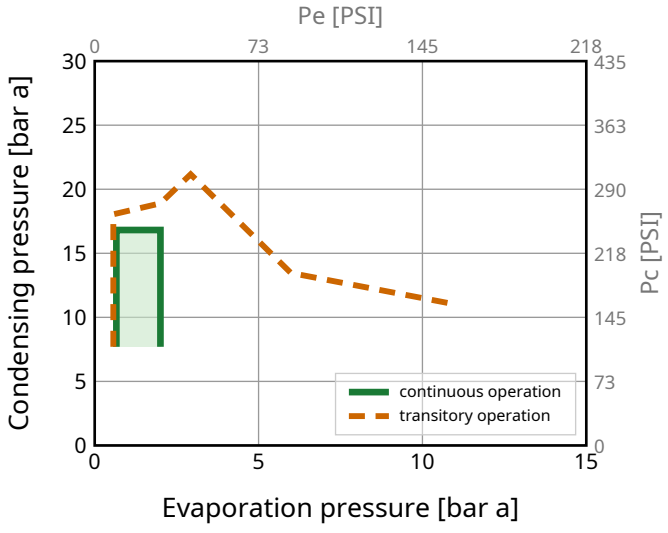
Components
a2 current relay 117U6001
c start capacitor (80µF) 117U5015
b plastic cover 103N2010
d cord relief 103N1010

Alternative components
b plastic cover 103N2011

Operation Pressure Range





Model Sales code:

NL8F Configuration 1 **105G6822**

Standard Conditions

R134a, 220 V/50 Hz, CSIR, static

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	**200**	683	172	**1.24**	4.24	161	1.06	3.88	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**149**	508	128	**0.97**	3.30	154	1.04	3.55	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**109**	373	94	**0.95**	3.23	115	0.93	2.39	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**163**	556	140	**1.04**	3.54	157	1.04	4.28	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**224**	764	193	**1.45**	4.95	154	1.06	4.35	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**100**	341	86	**0.87**	2.96	115	0.92	2.15	**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	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**100**	341	86	**0.87**	2.96	115	0.92	2.15
-30	-22	**134**	456	115	**1.02**	3.48	131	0.97	2.88
-25	-13	**176**	599	151	**1.18**	4.02	149	1.03	3.80
-20	-4	**228**	777	196	**1.34**	4.59	169	1.10	4.94
-15	5	**292**	996	251	**1.52**	5.20	192	1.18	6.35
-10	14	**371**	1264	319	**1.72**	5.85	216	1.27	8.09

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

-35	-31	**82**	279	70	**0.70**	2.41	116	0.92	1.94
-30	-22	**112**	383	97	**0.84**	2.87	134	0.98	2.67
-25	-13	**149**	508	128	**0.97**	3.30	154	1.04	3.55
-20	-4	**194**	662	167	**1.09**	3.73	177	1.13	4.64
-15	5	**250**	851	215	**1.23**	4.19	203	1.22	5.99
-10	14	**317**	1083	273	**1.37**	4.67	232	1.34	7.65

Model
NL8F Configuration 2

Sales code:
105G6822

Configuration

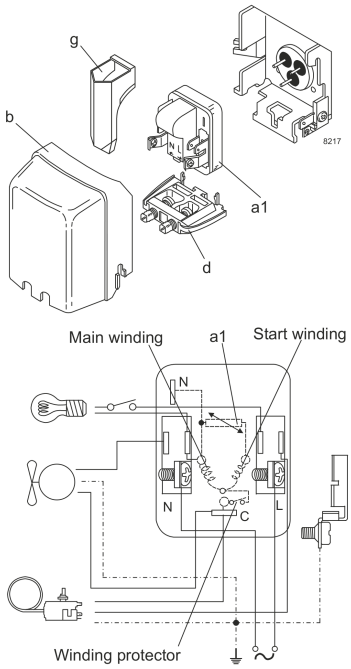
Motor configuration	**RSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**LBP**
Voltage range	**198-254 V**
Starting torque	**LST**
Approvals	**VDE, EAC**
Starting device type	**PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ U(N))	**8.7 A**
Cut in current (U(N))	**10.9 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
static

Electrical Accessories / Wiring Diagram

RSIR



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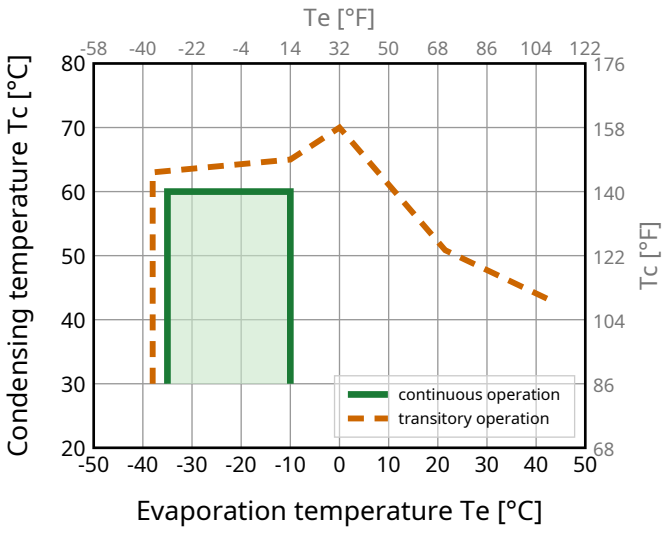
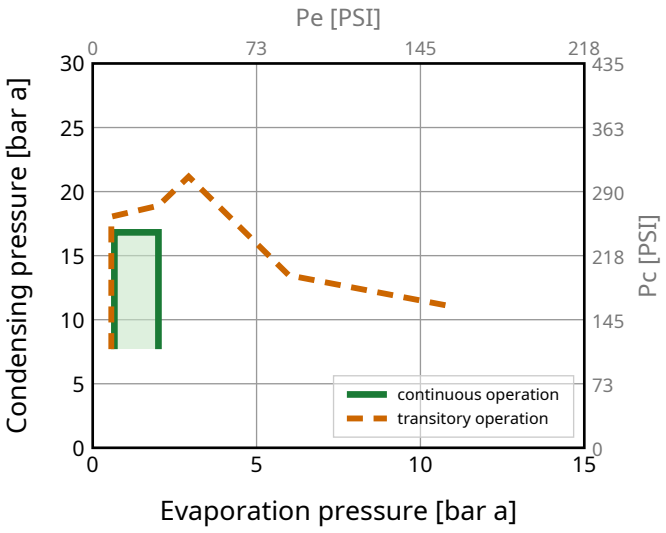
Components
a1 PTC starter (220V, 25Ohm, 4.8mm) 103N0018
b plastic cover 103N2010
d cord relief 103N1010
g protection screen for PTC 103N0476

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

Operation Pressure Range





Model Sales code:

NL8F Configuration 2 **105G6822**

Standard Conditions

R134a, 220 V/50 Hz, RSIR, static

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	**200**	683	172	**1.24**	4.24	161	1.06	3.88	**ASHRAE LBP**
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-35 -31	45 113	32 89.6	45 113	**100**	341	86	**0.87**	2.96	115	0.92	2.15	**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	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
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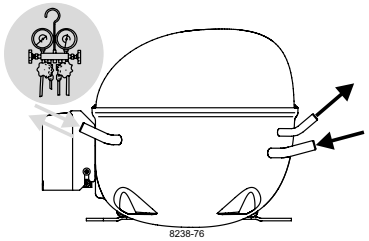


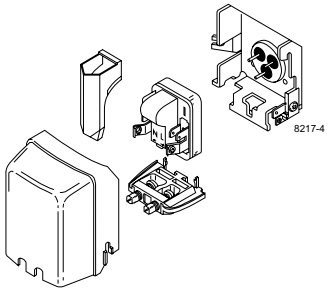
NL Compressors

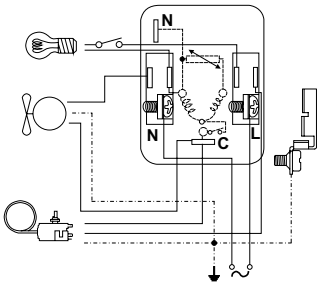
SECOP

Keep electrical equipment clear from oil, chemicals, and water

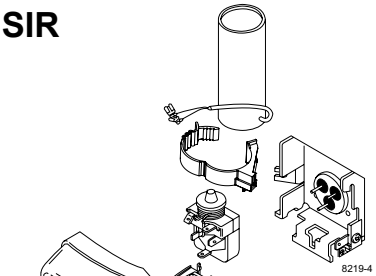
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

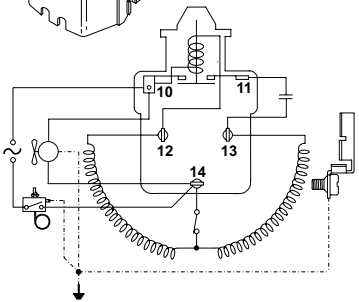
RSIR



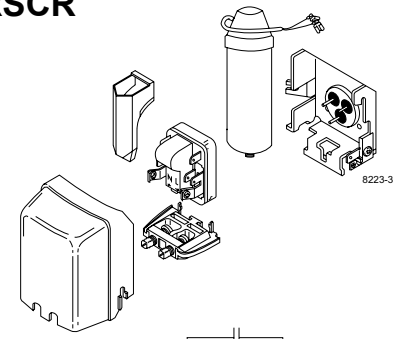


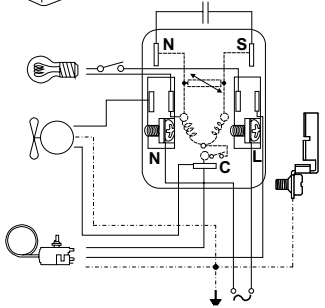
CSIR

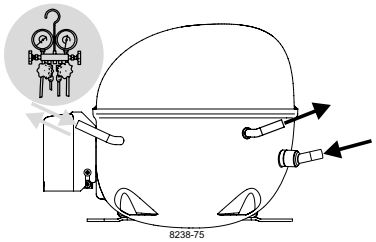




RSCR







NL Compressors

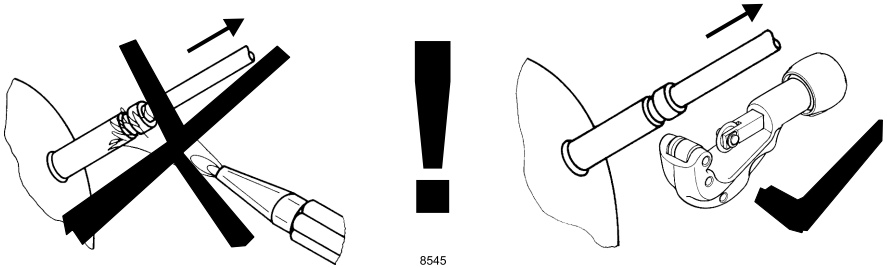
SECOP

Keep electrical equipment clear from oil, chemicals, and water

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

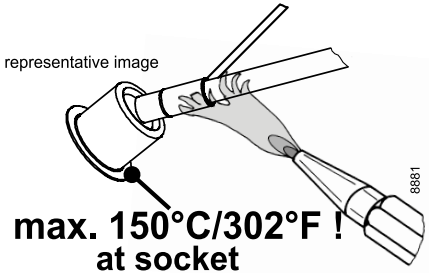
Service/Repair – R290, R600a, R170, R1270, R1234yf

(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**