

## 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, 250hm, 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

Secop GmbH • Lise-Meitner-Straße 29 • 24941 Flensburg, Germany • Tel: +49 461 4941 0 • [www.secop.com](http://www.secop.com)

Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved.

**Model**

Designation	<b>NL8F</b>	<b>220-240V/50Hz 1~</b>	Sales code:	<b>105G6822</b>
-------------	-------------	-------------------------	-------------	-----------------

**Compressor design**

Oil type	Polyolester	Refrigerant(s)	<b>R134a</b>
Oil viscosity	19,2cST	Displacement	7,95cm <sup>3</sup> / 0,49cu.in
Oil quantity	265cm <sup>3</sup> / 9fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2230cm <sup>3</sup> / 75,4fl.oz		
Weight	9,8kg / 21,6lbs		
Motor protection	1# internal		
Winding resistance main	10,7Ω (at 25°C)		
Winding resistance aux	13Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



**General - Configurations with NL8F**

	<b>Conf. 1</b>	<b>Conf. 2</b>
Motorconfiguration	CSIR	RSIR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1
Voltage range	198-254V	198-254V
Approvals	VDE, EAC	VDE, EAC
Starting torque	HST	LST
Note	- / -	

**Applications with NL8F**

	<b>Conf. 1</b>	<b>Conf. 2</b>
Refrigerant	R134a	R134a
Application	LBP	LBP
System cooling	static	static
Hot gas defrost	- / -	- / -
Long interval pull down	- / -	- / -

**Electrical data - Configurations with NL8F**

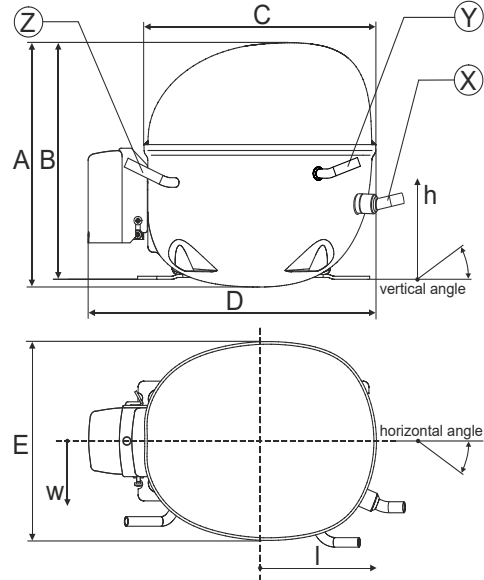
	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	relay	PTC
Run capacitor	- / -	- / -
Start capacitor	80μF	- / -
LRA (locked rotor amps / 4s)	6,6A	7,9A
RLA (rated load amps / 1s)		
Cut in current	10,9A	7,9A

**Model**

Designation	<b>NL8F</b>	<b>220-240V/50Hz 1~</b>	Sales code:	<b>105G6822</b>
-------------	-------------	-------------------------	-------------	-----------------

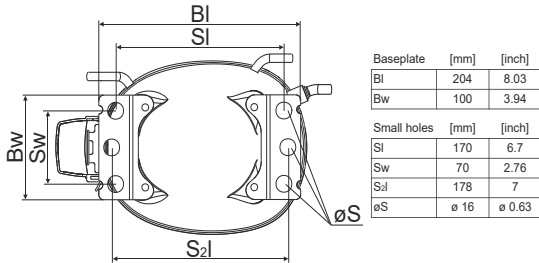
**Compressor dimensions**

<b>Housing</b>	A Height	197mm / 7,76in
	B Height	191mm / 7,52in
	C Length shell	205mm / 8,07in
	D Length w. cover	254mm / 10in
	E Width	166mm / 6,54in

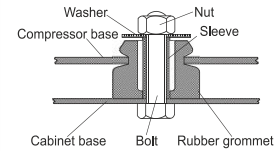


<b>Connectors</b>		<b>Suction</b>	<b>Discharge</b>	<b>Process</b>
		<b>X</b>	<b>Y</b>	<b>Z</b>
Diameter	[mm]	øi 6,11-6,29	øi 5,12-5,22	øi 6,11-6,29
(i:inside, o:outside)	[in]	øi 0,24-0,25	øi 0,2-0,21	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	15°	35°	155°
Position l/h/w	[mm]	126/76/78	133/103/54	-107/94/72
	[in]	4,9/3/3,1	5,2/4/2,1	-4,2/3,7/2,8
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

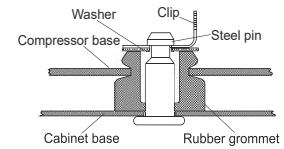
**Compressor fixation**



**Bolt joint**



**Snap-on**



<b>Mounting accessories</b>	one comp.	multi pack
Bolt joint   M6   ø16mm	118-1917	118-1918
Bolt joint   ø1/4"   ø16mm	118-1946	
Bolt joint   ø1/4"   ø19mm	118-1949	
Snap-on   ø7,3   ø16mm	118-1947	118-1919

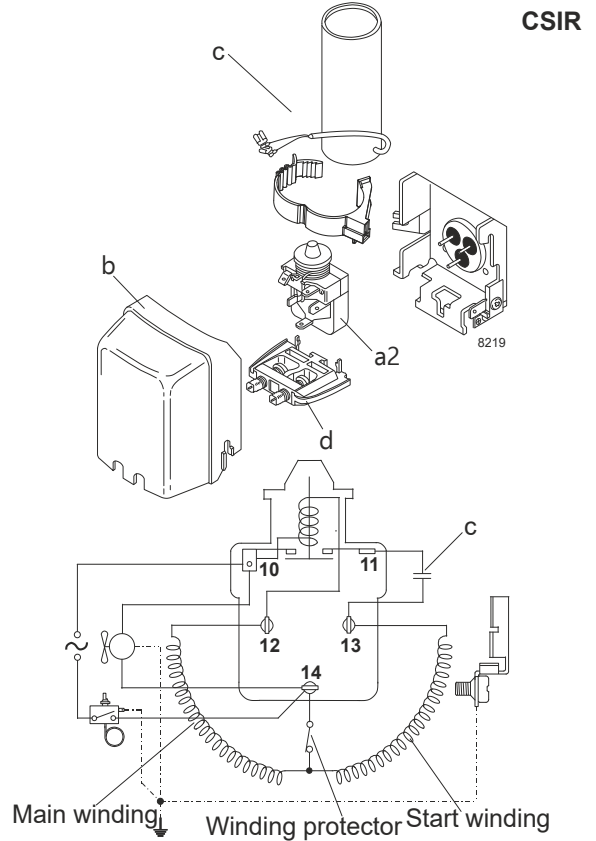
**Model**

Designation	<b>NL8F</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>105G6822</b>
-------------	-------------	----------------------	----------------	-------------	-----------------

**Configuration**

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE EAC

**Electrical accessories / wiring diagram**

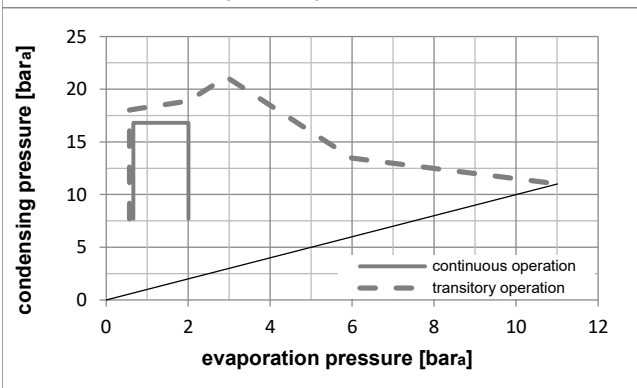
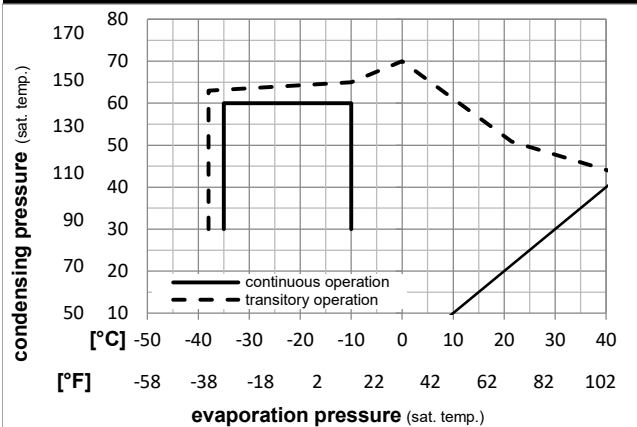


**Ambient temperatures / system cooling**

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	38°C / 101°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	static	n/a	n/a
43°C / 110°F	n/a	n/a	n/a

**Operation pressure range**



Components

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

Alternative components

b	plastic cover	103N2011
---	---------------	----------

**Model**

Designation	<b>NL8F</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>105G6822</b>
-------------	-------------	----------------------	----------------	-------------	-----------------

**Optimization + standard conditions**

R134a, 220V/50Hz, CSIR, static, VDE, EAC

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption					
						Return gas temp.						Current consumption					
						Liquid temp.						Ref. mass flow					
						Cooling capacity						COP	EER	P1	I	m	
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]			
[°C]	-23,3	54,4	32,2	32,2	200,2	684	172,3	1,24	4,25	1,07	161,0	1,06	3,89	ASHRAE LBP			
[°F]	-10	130	90	90													
[°C]	-25	55	32	55	149,0	509	128,3	0,97	3,30	0,83	154,1	1,04	3,56	cecomaf LBP			
[°F]	-13	131	89,6	131													
[°C]	-35	40	20	40	109,0	372	93,8	0,95	3,23	0,81	115,1	0,93	2,39	EN12900 LBP			
[°F]	-31	104	68	104													
[°C]	-23,3	48,9	4,44	48,9	161,8	553	139,3	1,03	3,52	0,89	157,2	1,04	4,27	ARI540 LBP			
[°F]	-10	120	40	120													
[°C]	-23,3	40,6	32,2	32,2	223,8	764	192,6	1,45	4,96	1,25	154,1	1,06	4,35	AHAM LBP			
[°F]	-10	105	90	90													
[°C]	-35	45	32	45	99,8	341	85,9	0,87	2,96	0,75	115,0	0,92	2,15	opt			
[°F]	-31	113	89,6	113													

**Performance tables**

R134a, 220V/50Hz, CSIR, static, VDE, EAC

	pe	Cooling capacity			COP	EER	P1	I	m		
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	99,8	341	85,9	0,87	2,96	0,75	115,0	0,92	2,15
cond. pressure	-30	-22	133,7	457	115,1	1,02	3,49	0,88	131,0	0,97	2,89
pc= 45/113	-25	-13	175,7	600	151,2	1,18	4,02	1,01	149,1	1,03	3,81
return gas temp.	-23,3	-10	192,2	656	165,4	1,23	4,21	1,06	155,8	1,05	4,17
RGT= 32/90	-20	-4	227,8	778	196,0	1,34	4,59	1,16	169,4	1,10	4,95
liquid temp	-15	5	292,0	997	251,3	1,52	5,20	1,31	191,8	1,18	6,37
Tliq= 45/113	-10	14	370,6	1266	318,9	1,71	5,86	1,48	216,1	1,28	8,11
[°C / °F]	-35	-31	81,9	280	70,5	0,70	2,41	0,61	116,2	0,92	1,95
cond. pressure	-30	-22	112,3	384	96,7	0,84	2,87	0,72	133,8	0,98	2,68
pc= 55/131	-25	-13	149,0	509	128,3	0,97	3,30	0,83	154,1	1,04	3,56
return gas temp	-23,3	-10	163,3	558	140,5	1,01	3,45	0,87	161,7	1,07	3,91
RGT= 32/90	-20	-4	194,0	663	167,0	1,09	3,74	0,94	177,3	1,13	4,65
liquid temp	-15	5	249,5	852	214,7	1,23	4,19	1,06	203,2	1,22	6,01
Tliq= 55/131	-10	14	317,4	1084	273,2	1,37	4,68	1,18	231,8	1,34	7,68

**Model**

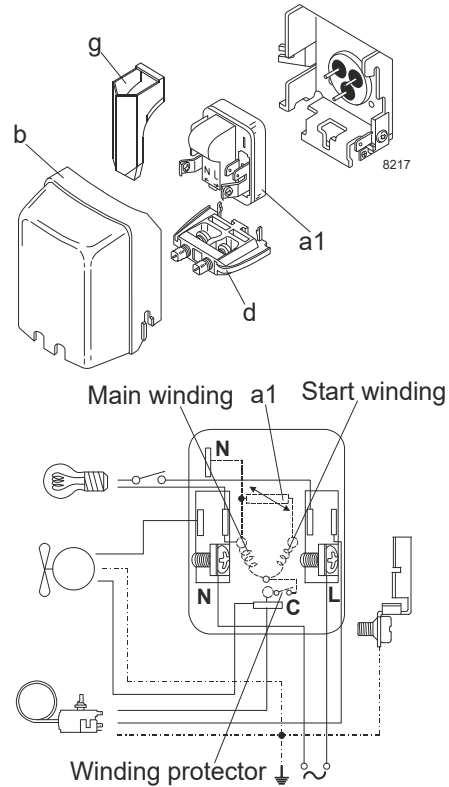
Designation	<b>NL8F</b>	<b>220-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>105G6822</b>
-------------	-------------	----------------------	----------------	-------------	-----------------

**Configuration**

Motorconfiguration	RSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254V
Starting torque	LST
Approvals	VDE EAC

**Electrical accessories / wiring diagram**

RSIR



**Ambient temperatures / system cooling**

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	38°C / 101°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	static	n/a	n/a
43°C / 110°F	n/a	n/a	n/a

**Operation pressure range**



Components

a1	PTC starter (220V, 250hm, 4.8mm)	103N0018
b	plastic cover	103N2010
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Alternative components

a1	PTC starter (220V, 250hm, 6.3mm)	103N0011
b	plastic cover	103N2011
d	cord relief	103N1010
g	protection screen for PTC	103N0476

**Model**

Designation	<b>NL8F</b>	<b>220-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>105G6822</b>
-------------	-------------	----------------------	----------------	-------------	-----------------

**Optimization + standard conditions**

R134a, 220V/50Hz, RSIR, static, VDE, EAC

		Evaporating pressure (saturation temperature)			Condensing pressure (saturation temperature)			Return gas temp.		Liquid temp.		Cooling capacity			COP	EER	Power consumption			Ref. mass flow m	
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Current consumption							
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]							[W]	[A]	[kg/h]							
-23	-10	54,4	130	32,2	90	200,2	684	172,3	1,24	4,25	1,07	161,0	1,06	3,89						ASHRAE LBP	
-25	-13	55	131	32	89,6	149,0	509	128,3	0,97	3,30	0,83	154,1	1,04	3,56						cecomaf LBP	
-35	-31	40	104	20	68	109,0	372	93,8	0,95	3,23	0,81	115,1	0,93	2,39						EN12900 LBP	
-23	-10	48,9	120	4,44	40	161,8	553	139,3	1,03	3,52	0,89	157,2	1,04	4,27						ARI540 LBP	
-23	-10	40,6	105	32,2	90	223,8	764	192,6	1,45	4,96	1,25	154,1	1,06	4,35						AHAM LBP	
-35	-31	45	113	32	89,6	99,8	341	85,9	0,87	2,96	0,75	115,0	0,92	2,15						opt	

**Performance tables**

R134a, 220V/50Hz, RSIR, static, VDE, EAC

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	99,8	341	85,9	0,87	2,96	0,75	115,0	0,92	2,15
cond. pressure	-30	-22	133,7	457	115,1	1,02	3,49	0,88	131,0	0,97	2,89
pc= 45/113	-25	-13	175,7	600	151,2	1,18	4,02	1,01	149,1	1,03	3,81
return gas temp.	-23	-10	192,2	656	165,4	1,23	4,21	1,06	155,8	1,05	4,17
RGT= 32/90	-20	-4	227,8	778	196,0	1,34	4,59	1,16	169,4	1,10	4,95
liquid temp	-15	5	292,0	997	251,3	1,52	5,20	1,31	191,8	1,18	6,37
Tliq= 45/113	-10	14	370,6	1266	318,9	1,71	5,86	1,48	216,1	1,28	8,11
[°C / °F]	-35	-31	81,9	280	70,5	0,70	2,41	0,61	116,2	0,92	1,95
cond. pressure	-30	-22	112,3	384	96,7	0,84	2,87	0,72	133,8	0,98	2,68
pc= 55/131	-25	-13	149,0	509	128,3	0,97	3,30	0,83	154,1	1,04	3,56
return gas temp	-23	-10	163,3	558	140,5	1,01	3,45	0,87	161,7	1,07	3,91
RGT= 32/90	-20	-4	194,0	663	167,0	1,09	3,74	0,94	177,3	1,13	4,65
liquid temp	-15	5	249,5	852	214,7	1,23	4,19	1,06	203,2	1,22	6,01
Tliq= 55/131	-10	14	317,4	1084	273,2	1,37	4,68	1,18	231,8	1,34	7,68



# NL Compressors







## Service/Repair – R600a, R290



8545

## 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)**

Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved. [www.secop.com](http://www.secop.com)