

Single Pack NL7F 220-240V 50Hz RSIR

Single pack code number: **195B4206**

Position	Title	Code	Amount
1	Compressor NL7F	105G6706	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

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	NL7F	220-240V/50Hz 1~	Sales code:	105G6706
-------------	-------------	-------------------------	-------------	-----------------

Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	19,2cST	Displacement	7,27cm ³ / 0,44cu.in
Oil quantity	265cm ³ / 9fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2180cm ³ / 73,7fl.oz		
Weight	9,6kg / 21,2lbs		
Motor protection	1# internal		
Winding resistance main	13,3Ω (at 25°C)		
Winding resistance aux	14,1Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with NL7F

	Conf. 1	Conf. 2
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 NL7F

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

Electrical data - Configurations with NL7F

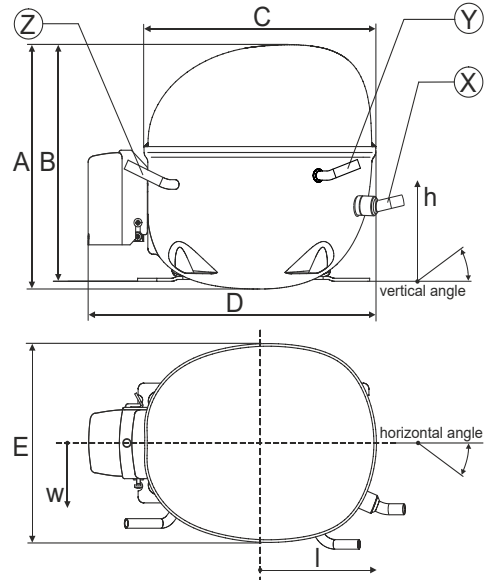
	Conf. 1	Conf. 2
Starting device type	relay	PTC
Run capacitor	- / -	- / -
Start capacitor	80μF	- / -
LRA (locked rotor amps / 4s)	5,9A	5,9A
RLA (rated load amps / 1s)	1,2A	1,2A
Cut in current	10,4A	10,4A

Model

Designation	NL7F	220-240V/50Hz 1~	Sales code:	105G6706
-------------	-------------	-------------------------	-------------	-----------------

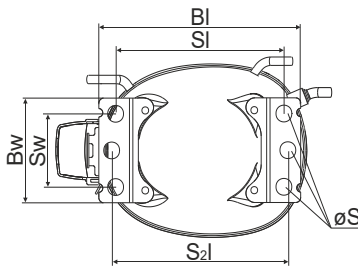
Compressor dimensions

Housing	A Height	189,5mm / 7,46in
	B Height	183,5mm / 7,22in
	C Length shell	205mm / 8,07in
	D Length w. cover	254mm / 10in
	E Width	166mm / 6,54in



Connectors		Suction	Discharge	Process
		X	Y	Z
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

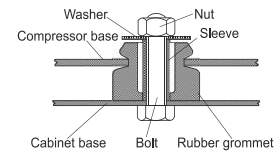
Compressor fixation



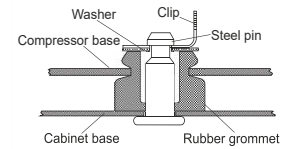
Baseplate	[mm]	[inch]
Bi	204	8.03
Bw	100	3.94

Small holes	[mm]	[inch]
Si	170	6.7
Sw	70	2.76
S2l	178	7
øS	ø 16	ø 0.63

Bolt joint



Snap-on



Mounting accessories	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

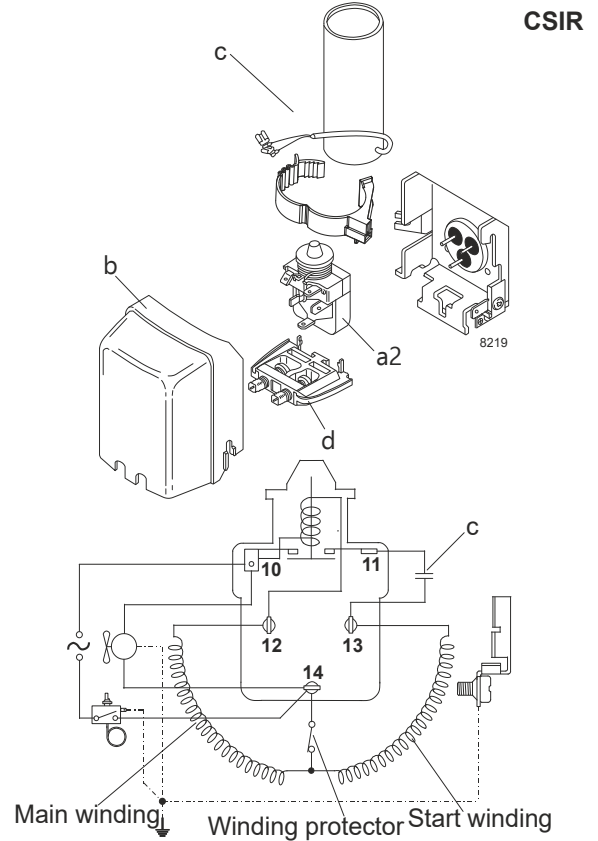
Model

Designation	NL7F	220-240V/50Hz	Conf. 1	Sales code:	105G6706
-------------	-------------	----------------------	----------------	-------------	-----------------

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	relay	117U6000
c	start capacitor (80µF)	117U5015
b	plastic cover	103N2010
d	cord relief	103N1010

Alternative components

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

Model

Designation	NL7F	220-240V/50Hz	Conf. 1	Sales code:	105G6706
-------------	-------------	----------------------	----------------	-------------	-----------------

Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)				Power consumption					
		Return gas temp.				Liquid temp.				Current consumption				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	186,1	636	160,2	1,21	4,12	1,04	154,2	1,04	3,61	ASHRAE LBP	
[°F]	-10	130	90	90											
[°C]	-25	55	32	55	136,1	465	117,1	0,93	3,19	0,80	145,9	1,02	3,25	cecomaf LBP	
[°F]	-13	131	89,6	131											
[°C]	-35	40	20	40	89,5	306	77,0	0,86	2,94	0,74	104,0	0,97	1,96	EN12900 LBP	
[°F]	-31	104	68	104											
[°C]	-23,3	48,9	4,44	48,9	153,8	525	132,3	1,02	3,50	0,88	150,1	1,02	4,06	ARI540 LBP	
[°F]	-10	120	40	120											
[°C]	-23,3	40,6	32,2	32,2	209,5	716	180,3	1,45	4,95	1,25	144,7	1,01	4,07	AHAM LBP	
[°F]	-10	105	90	90											
[°C]	-35	45	32	45	84,1	287	72,4	0,83	2,84	0,72	100,9	0,95	1,81	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	84,1	287	72,4	0,83	2,84	0,72	100,9	0,95	1,81	
cond. pressure	-30	-22	119,5	408	102,8	1,00	3,41	0,86	119,8	0,96	2,58	
pc= 45/113	-25	-13	163,9	560	141,0	1,17	3,99	1,01	140,1	1,00	3,55	
return gas temp.	-23,3	-10	181,0	618	155,8	1,23	4,19	1,06	147,4	1,01	3,93	
RGT= 32/90	-20	-4	217,3	742	187,0	1,34	4,58	1,15	162,1	1,05	4,72	
liquid temp	-15	5	280,0	956	241,0	1,51	5,14	1,30	185,9	1,13	6,10	
Tliq= 45/113	-10	14	352,1	1202	303,0	1,66	5,67	1,43	212,0	1,24	7,70	
[°C / °F]	-35	-31	70,9	242	61,1	0,73	2,50	0,63	97,1	0,92	1,69	
cond. pressure	-30	-22	99,0	338	85,2	0,82	2,80	0,71	120,8	0,96	2,36	
pc= 55/131	-25	-13	136,1	465	117,1	0,93	3,19	0,80	145,9	1,02	3,25	
return gas temp	-23,3	-10	150,8	515	129,8	0,97	3,33	0,84	154,7	1,04	3,61	
RGT= 32/90	-20	-4	182,4	623	156,9	1,06	3,61	0,91	172,6	1,10	4,37	
liquid temp	-15	5	237,9	813	204,8	1,18	4,04	1,02	201,2	1,20	5,73	
Tliq= 55/131	-10	14	303,0	1035	260,8	1,31	4,46	1,12	231,9	1,33	7,33	

Model

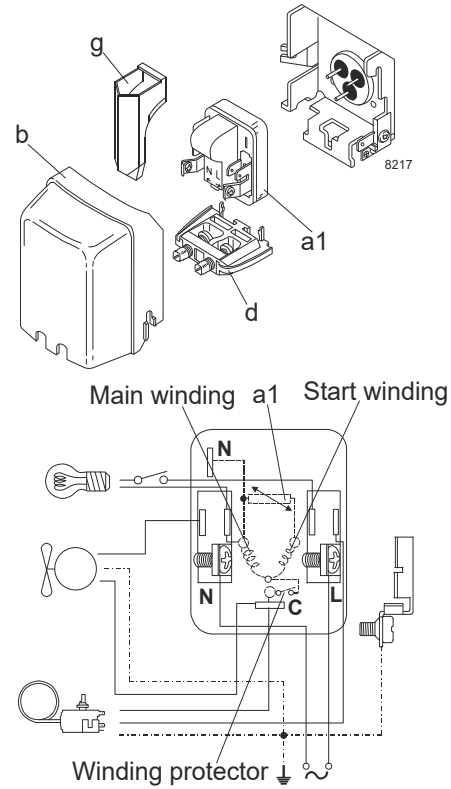
Designation	NL7F	220-240V/50Hz	Conf. 2	Sales code:	105G6706
-------------	-------------	----------------------	----------------	-------------	-----------------

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	NL7F	220-240V/50Hz	Conf. 2	Sales code:	105G6706
-------------	-------------	----------------------	----------------	-------------	-----------------

Optimization + standard conditions

R134a, 220V/50Hz, RSIR, 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	54,4	32,2	32,2	186,1	636	160,2	1,21	4,12	1,04	154,2	1,04	3,61	ASHRAE LBP					
[°F]	-10	130	90	90															
[°C]	-25	55	32	55	136,1	465	117,1	0,93	3,19	0,80	145,9	1,02	3,25	cecomaf LBP					
[°F]	-13	131	89,6	131															
[°C]	-35	40	20	40	89,5	306	77,0	0,86	2,94	0,74	104,0	0,97	1,96	EN12900 LBP					
[°F]	-31	104	68	104															
[°C]	-23	48,9	4,44	48,9	153,8	525	132,3	1,02	3,50	0,88	150,1	1,02	4,06	ARI540 LBP					
[°F]	-10	120	40	120															
[°C]	-23	40,6	32,2	32,2	209,5	716	180,3	1,45	4,95	1,25	144,7	1,01	4,07	AHAM LBP					
[°F]	-10	105	90	90															
[°C]	-35	45	32	45	84,1	287	72,4	0,83	2,84	0,72	100,9	0,95	1,81	opt					
[°F]	-31	113	89,6	113															

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	84,1	287	72,4	0,83	2,84	0,72	100,9	0,95	1,81			
cond. pressure	-30	-22	119,5	408	102,8	1,00	3,41	0,86	119,8	0,96	2,58			
pc= 45/113	-25	-13	163,9	560	141,0	1,17	3,99	1,01	140,1	1,00	3,55			
return gas temp.	-23	-10	181,0	618	155,8	1,23	4,19	1,06	147,4	1,01	3,93			
RGT= 32/90	-20	-4	217,3	742	187,0	1,34	4,58	1,15	162,1	1,05	4,72			
liquid temp	-15	5	280,0	956	241,0	1,51	5,14	1,30	185,9	1,13	6,10			
Tliq= 45/113	-10	14	352,1	1202	303,0	1,66	5,67	1,43	212,0	1,24	7,70			
[°C / °F]	-35	-31	70,9	242	61,1	0,73	2,50	0,63	97,1	0,92	1,69			
cond. pressure	-30	-22	99,0	338	85,2	0,82	2,80	0,71	120,8	0,96	2,36			
pc= 55/131	-25	-13	136,1	465	117,1	0,93	3,19	0,80	145,9	1,02	3,25			
return gas temp	-23	-10	150,8	515	129,8	0,97	3,33	0,84	154,7	1,04	3,61			
RGT= 32/90	-20	-4	182,4	623	156,9	1,06	3,61	0,91	172,6	1,10	4,37			
liquid temp	-15	5	237,9	813	204,8	1,18	4,04	1,02	201,2	1,20	5,73			
Tliq= 55/131	-10	14	303,0	1035	260,8	1,31	4,46	1,12	231,9	1,33	7,33			



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