

Model

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

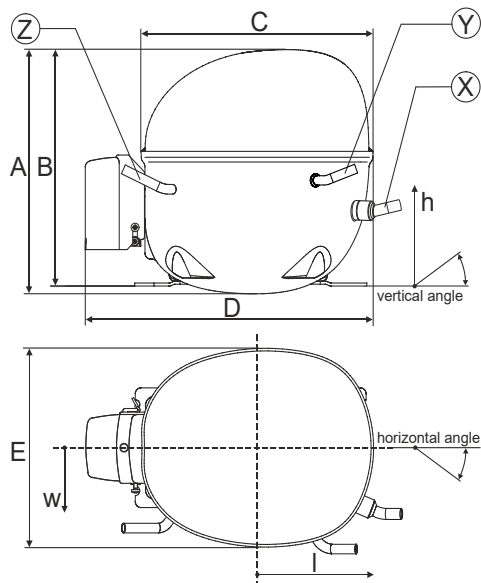
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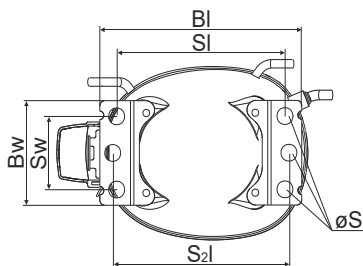
Compressor dimensions

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



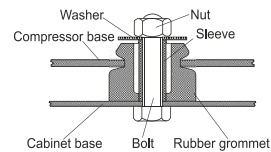
Compressor fixation



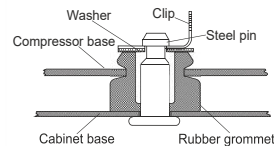
Baseplate	[mm]	[inch]
BI	204	8.03
Bw	100	3.94

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

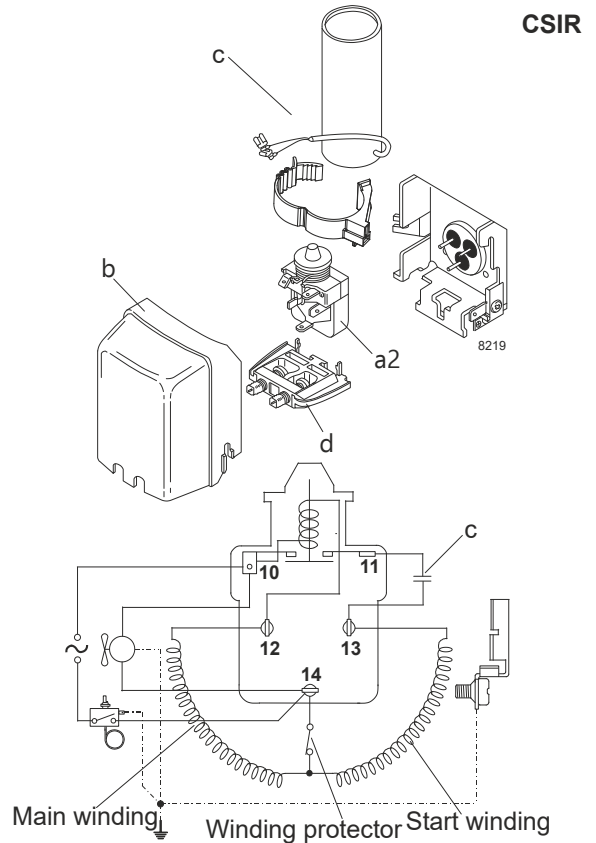
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Configuration

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

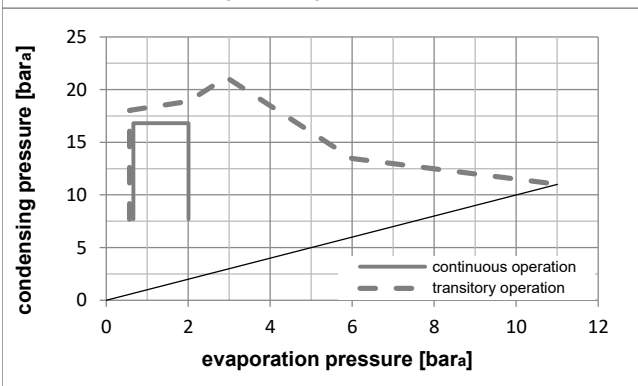
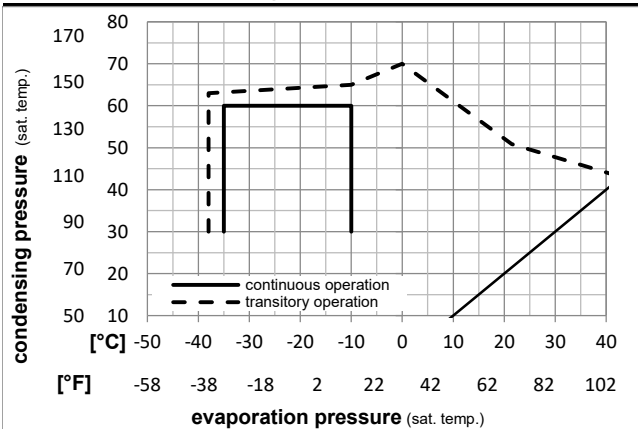


Ambient temperatures / system cooling

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
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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

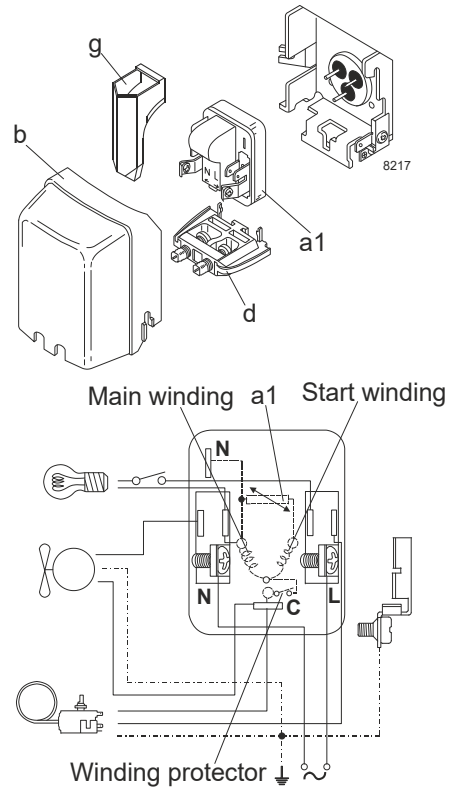
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Configuration

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

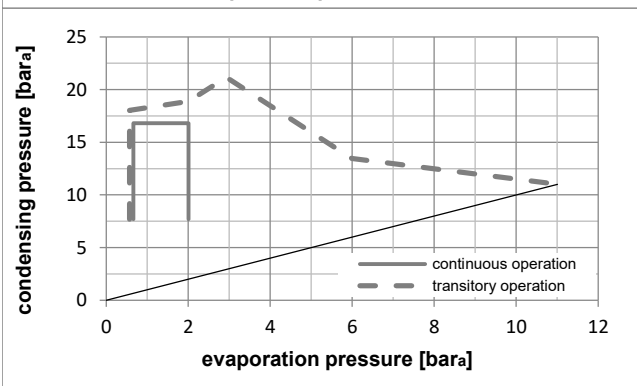
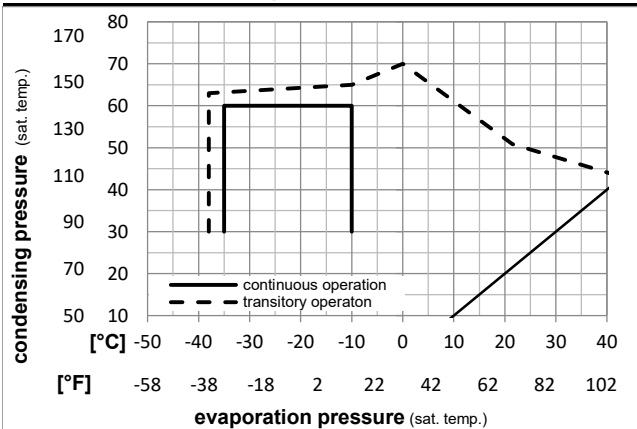


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
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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

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Optimization + standard conditions

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

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption			ASHRAE LBP	
Return gas temp.				Liquid temp.		Cooling capacity		COP	EER	P1	Current consumption		cecomaf LBP		
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	I	m			EN12900 LBP
[°C]	[°C]	[°C]	[°C]								[A]	[kg/h]			
[°F]	[°F]	[°F]	[°F]											AHAM LBP	
-23	54,4	32,2	32,2	186,1	636	160,2	1,21	4,12	1,04	154,2	1,04	3,61			
-10	130	90	90												
-25	55	32	55	136,1	465	117,1	0,93	3,19	0,80	145,9	1,02	3,25			
-13	131	89,6	131												
-35	40	20	40	89,5	306	77,0	0,86	2,94	0,74	104,0	0,97	1,96			
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-23	48,9	4,44	48,9	153,8	525	132,3	1,02	3,50	0,88	150,1	1,02	4,06			
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-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
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