

## Single Pack NL6FT 220-240V 50/60Hz CSIR

Single pack code number: **195B4492**

Position	Title	Code	Amount
1	Compressor NL6FT	105G6628	1
2	Starting relay	117U6000	1
3	Starting capacitor (80 $\mu$ F 220V, 6.3mm)	117U5015	1
4	Cord relief	103N1010	1
5	Cover	103N2010	1
6	Bolt joint for one compressor   M6   $\varnothing$ 16mm	118-1917	1

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**Model**

Designation	<b>NL6FT</b>	<b>220-240V/50Hz 1~ 220-240V/60Hz 1~</b>	Sales code:	<b>105G6628</b>
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**Compressor design**

Oil type	Polyolester	Refrigerant(s)	<b>R134a</b>
Oil viscosity	19,2cST	Displacement	6,13cm <sup>3</sup> / 0,37cu.in
Oil quantity	265cm <sup>3</sup> / 9fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2360cm <sup>3</sup> / 79,8fl.oz		
Weight	10kg / 22lbs		
Motor protection	1# internal		
Winding resistance main	12,6Ω (at 25°C)		
Winding resistance aux	12,4Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



**General - Configurations with NL6FT**

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>	<b>Conf. 4</b>
Motorconfiguration	CSIR	CSIR	RSIR	RSIR
Power supply (nominal)	220-240V/50Hz	208-230V/60Hz	220-240V/50Hz	208-230V/60Hz
Number of phases	1	1	1	1
Voltage range	187-254V	198-254V	187-254V	198-254V
Approvals	VDE, EAC	VDE, EAC	VDE, EAC	VDE, EAC
Starting torque	HST	HST	LST	LST
Note	- / -			

**Applications with NL6FT**

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>	<b>Conf. 4</b>
Refrigerant	R134a	R134a	R134a	R134a
Application	LBP	LBP	LBP	LBP
System cooling	static	static	static	static
Hot gas defrost	- / -	- / -	- / -	- / -
Long interval pull down	- / -	- / -	- / -	- / -

**Electrical data - Configurations with NL6FT**

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>	<b>Conf. 4</b>
Starting device type	relay	relay	PTC	PTC
Run capacitor	- / -	- / -	- / -	- / -
Start capacitor	80μF	80μF	- / -	- / -
LRA (locked rotor amps / 4s)	7,5A	7,5A	5,8A	5,8A
RLA (rated load amps / 1s)	1,2A	1,2A	1,2A	1,2A
Cut in current	10,5A	10,5A	10,5A	10,5A

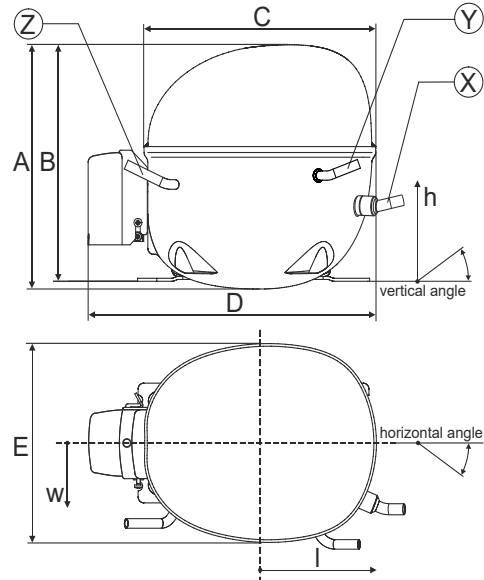
**Model**

Designation **NL6FT** 220-240V/50Hz 1~ 220-240V/60Hz 1~ Sales code: **105G6628**

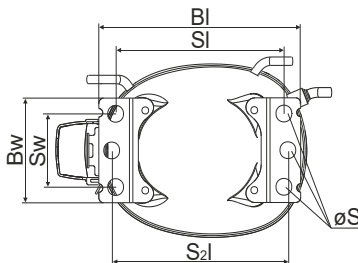
**Compressor dimensions**

<b>Housing</b>	A Height	197mm / 7,76in
	B Height	191mm / 7,52in
	C Length shell	230mm / 9,06in
	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**

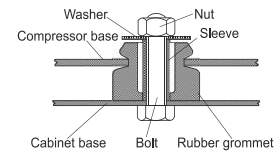


Baseplate	[mm]	[inch]
Bi	204	8.03
Bw	100	3.94

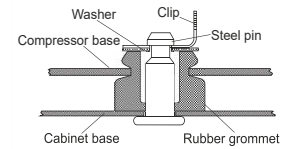
  

Small holes	[mm]	[inch]
Si	170	6.7
Sw	70	2.76
S2l	178	7
øS	ø 16	ø 0.63

**Bolt joint**



**Snap-on**



<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

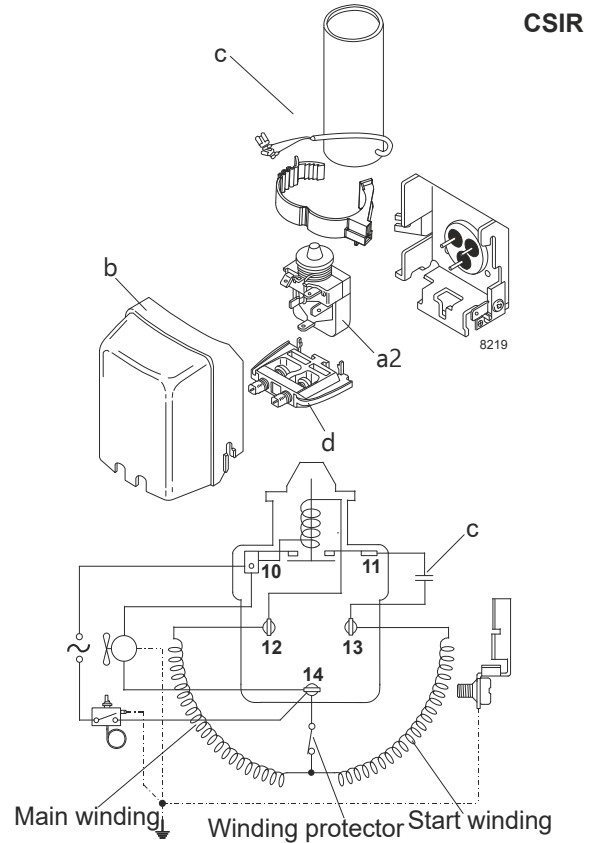
**Model**

Designation	<b>NL6FT</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>105G6628</b>
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**Configuration**

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE EAC

**Electrical accessories / wiring diagram**



**Ambient temperatures / system cooling**

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°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	static	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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**Model**

Designation	<b>NL6FT</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>105G6628</b>
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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.						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	156,3	534	134,5	1,21	4,12	1,04	129,5	0,86	3,03	ASHRAE LBP			
[°F]	-10	130	90	90													
[°C]	-25	55	32	55	114,9	392	98,9	0,93	3,18	0,80	123,3	0,84	2,75	cecomaf LBP			
[°F]	-13	131	89,6	131													
[°C]	-35	40	20	40	80,0	273	68,9	0,87	2,98	0,75	91,7	0,77	1,76	EN12900 LBP			
[°F]	-31	104	68	104													
[°C]	-23,3	48,9	4,44	48,9	128,8	440	110,8	1,00	3,41	0,86	128,8	0,87	3,40	ARI540 LBP			
[°F]	-10	120	40	120													
[°C]	-23,3	40,6	32,2	32,2	175,8	601	151,3	1,41	4,82	1,22	124,5	0,86	3,41	AHAM LBP			
[°F]	-10	105	90	90													
[°C]	-35	45	32	45	74,8	256	64,4	0,81	2,75	0,69	92,9	0,78	1,61	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	74,8	256	64,4	0,81	2,75	0,69	92,9	0,78	1,61		
cond. pressure	-30	-22	103,1	352	88,7	0,97	3,32	0,84	106,0	0,81	2,23		
pc= 45/113	-25	-13	138,3	472	119,1	1,14	3,89	0,98	121,4	0,85	3,00		
return gas temp.	-23,3	-10	152,1	519	130,9	1,20	4,09	1,03	127,1	0,87	3,30		
RGT= 32/90	-20	-4	181,6	620	156,3	1,31	4,48	1,13	138,5	0,90	3,95		
liquid temp	-15	5	233,8	799	201,2	1,49	5,10	1,29	156,5	0,96	5,10		
Tliq= 45/113	-10	14	296,0	1011	254,7	1,69	5,78	1,46	174,9	1,03	6,48		
[°C / °F]	-35	-31	60,1	205	51,7	0,65	2,21	0,56	92,7	0,77	1,43		
cond. pressure	-30	-22	84,4	288	72,7	0,79	2,71	0,68	106,6	0,80	2,01		
pc= 55/131	-25	-13	114,9	392	98,9	0,93	3,18	0,80	123,3	0,84	2,75		
return gas temp	-23,3	-10	126,8	433	109,2	0,98	3,34	0,84	129,5	0,85	3,04		
RGT= 32/90	-20	-4	152,4	521	131,2	1,07	3,66	0,92	142,2	0,89	3,66		
liquid temp	-15	5	198,0	676	170,4	1,22	4,16	1,05	162,7	0,96	4,77		
Tliq= 55/131	-10	14	252,5	862	217,3	1,37	4,69	1,18	184,1	1,04	6,11		

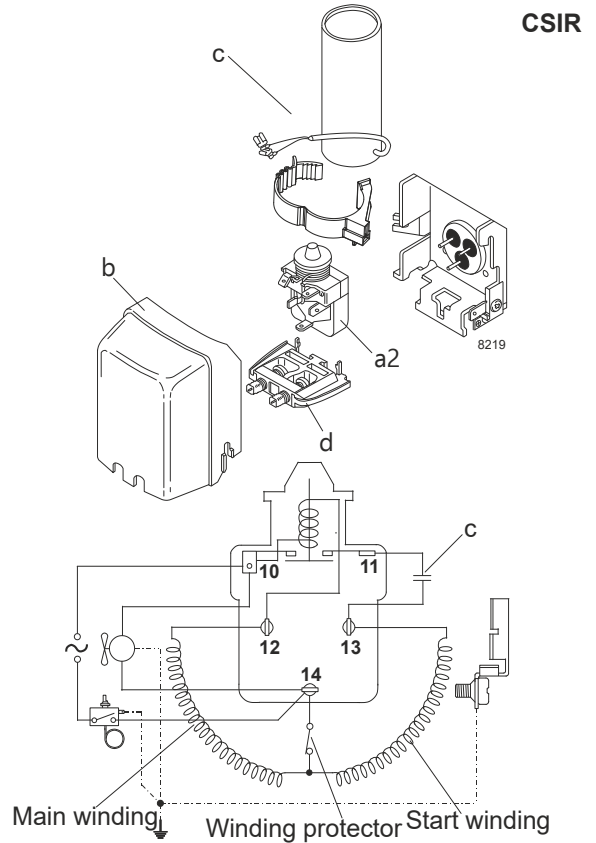
**Model**

Designation	<b>NL6FT</b>	<b>208-230V/60Hz</b>	<b>Conf. 2</b>	Sales code:	<b>105G6628</b>
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**Configuration**

Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE EAC

**Electrical accessories / wiring diagram**

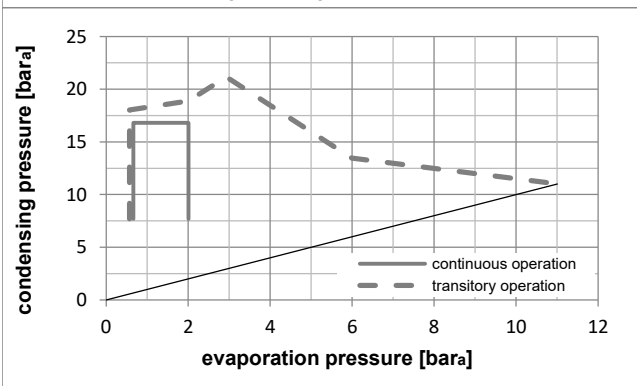
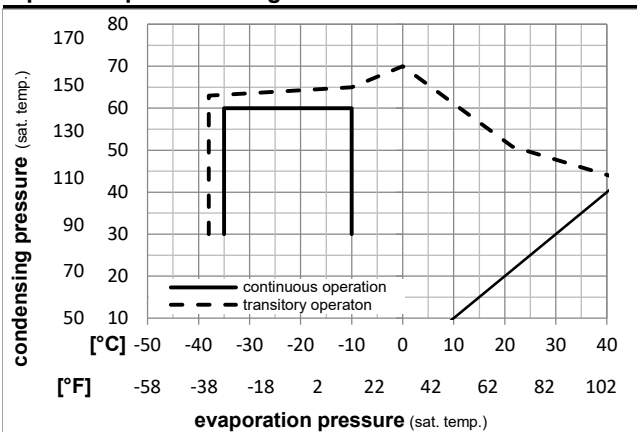


**Ambient temperatures / system cooling**

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°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	static	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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**Model**

Designation	<b>NL6FT</b>	<b>208-230V/60Hz</b>	<b>Conf. 2</b>	Sales code:	<b>105G6628</b>
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**Optimization + standard conditions**

R134a, 220V/60Hz, CSIR, 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]											[W]	[A]	[kg/h]							
[°C]	-23	54,4	32,2	32,2	161,3	551	138,8	1,22	4,16	1,05	132,4	0,91	3,13		ASHRAE						
[°F]	-10	130	90	90												LBP					
[°C]	-25	55	32	55	119,0	406	102,4	0,94	3,22	0,81	126,1	0,90	2,85		cecomaf						
[°F]	-13	131	89,6	131												LBP					
[°C]	-35	40	20	40	78,2	267	67,3	0,90	3,09	0,78	86,5	0,81	1,72		EN12900						
[°F]	-31	104	68	104												LBP					
[°C]	-23	48,9	4,44	48,9	132,5	452	114,0	1,01	3,44	0,87	131,6	0,91	3,50		ARI540						
[°F]	-10	120	40	120												LBP					
[°C]	-23	40,6	32,2	32,2	180,0	615	154,9	1,41	4,81	1,21	127,8	0,90	3,50		AHAM						
[°F]	-10	105	90	90												LBP					
[°C]	-35	45	32	45	73,2	250	63,0	0,84	2,86	0,72	87,4	0,82	1,58		opt						
[°F]	-31	113	89,6	113																	

**Performance tables**

R134a, 220V/60Hz, 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	73,2	250	63,0	0,84	2,86	0,72	87,4	0,82	1,58
cond. pressure	-30	-22	105,6	361	90,9	0,99	3,38	0,85	106,7	0,86	2,28
pc= 45/113	-25	-13	142,3	486	122,5	1,14	3,91	0,98	124,4	0,90	3,08
return gas temp.	-23	-10	156,0	533	134,3	1,20	4,10	1,03	130,1	0,91	3,38
RGT= 32/90	-20	-4	184,8	631	159,1	1,31	4,49	1,13	140,7	0,93	4,02
liquid temp	-15	5	234,7	801	202,0	1,51	5,14	1,30	155,9	0,97	5,12
Tliq= 45/113	-10	14	293,3	1002	252,4	1,72	5,88	1,48	170,3	1,01	6,42
[°C / °F]	-35	-31	58,9	201	50,7	0,68	2,32	0,58	86,8	0,81	1,40
cond. pressure	-30	-22	87,2	298	75,0	0,81	2,78	0,70	107,0	0,85	2,08
pc= 55/131	-25	-13	119,0	406	102,4	0,94	3,22	0,81	126,1	0,90	2,85
return gas temp	-23	-10	130,9	447	112,7	0,99	3,38	0,85	132,4	0,91	3,13
RGT= 32/90	-20	-4	155,9	532	134,2	1,08	3,69	0,93	144,4	0,94	3,74
liquid temp	-15	5	199,3	681	171,5	1,23	4,20	1,06	162,1	0,99	4,80
Tliq= 55/131	-10	14	250,7	856	215,7	1,40	4,77	1,20	179,3	1,04	6,06

**Model**

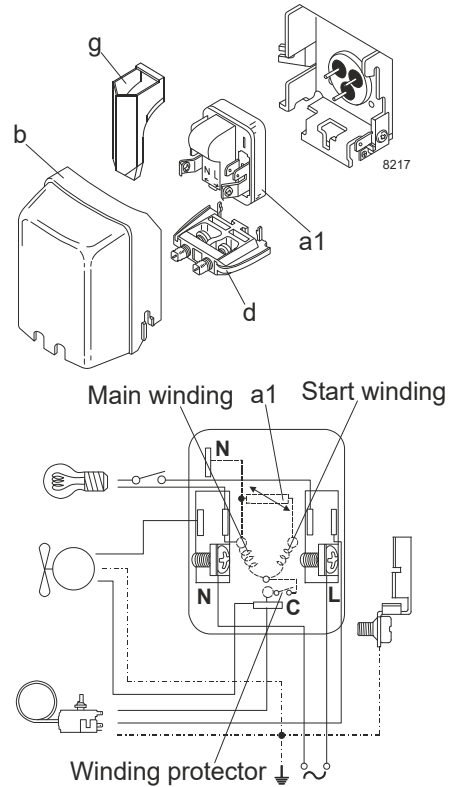
Designation	<b>NL6FT</b>	<b>220-240V/50Hz</b>	<b>Conf. 3</b>	Sales code:	<b>105G6628</b>
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**Configuration**

Motorconfiguration	RSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	187-254V
Starting torque	LST
Approvals	VDE EAC

**Electrical accessories / wiring diagram**

RSIR

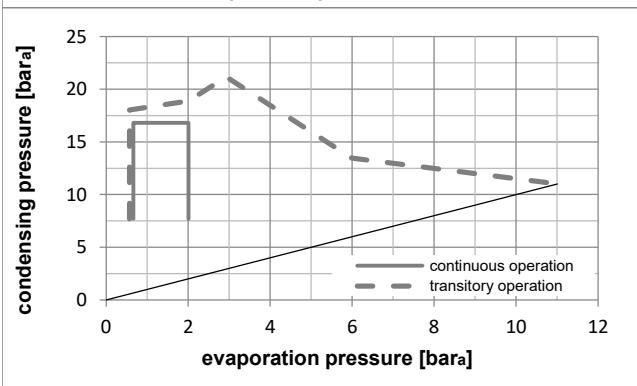
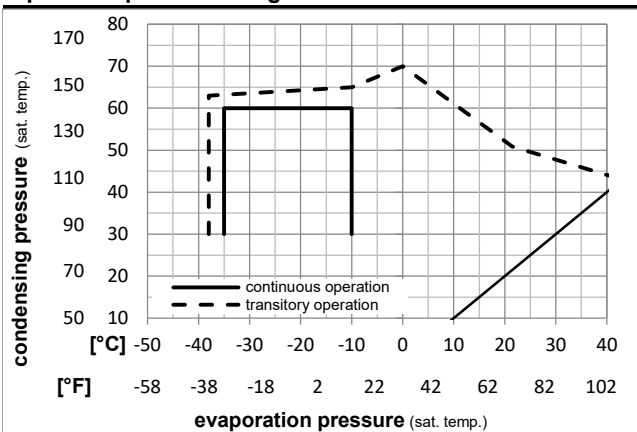


**Ambient temperatures / system cooling**

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°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	static	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**

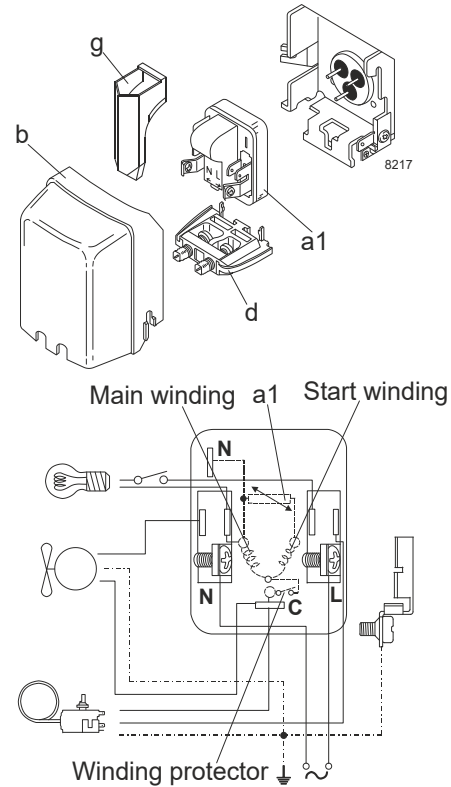
Designation	<b>NL6FT</b>	<b>208-230V/60Hz</b>	<b>Conf. 4</b>	Sales code:	<b>105G6628</b>
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**Configuration**

Motorconfiguration	RSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254V
Starting torque	LST
Approvals	VDE EAC

**Electrical accessories / wiring diagram**

RSIR

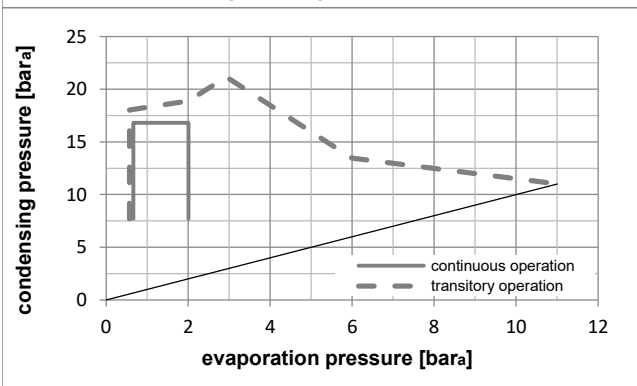
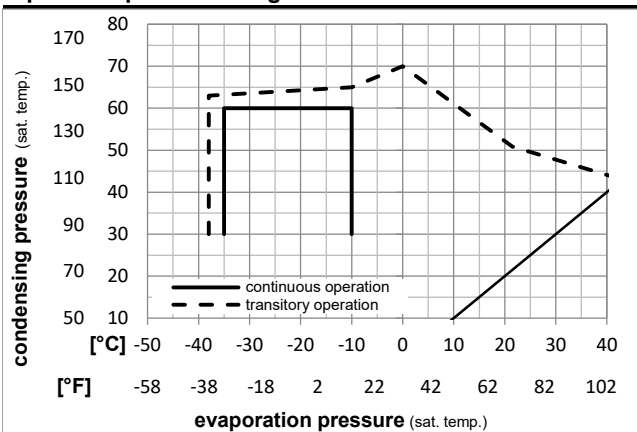


**Ambient temperatures / system cooling**

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°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	static	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>NL6FT</b>	<b>208-230V/60Hz</b>	<b>Conf. 4</b>	Sales code:	<b>105G6628</b>
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**Optimization + standard conditions**

R134a, 220V/60Hz, 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]	-23,3	54,4	32,2	32,2	161,3	551	138,8	1,22	4,16	1,05	132,4	0,91	3,13	ASHRAE LBP			
[°F]	-10	130	90	90													
[°C]	-25	55	32	55	119,0	406	102,4	0,94	3,22	0,81	126,1	0,90	2,85	cecomaf LBP			
[°F]	-13	131	89,6	131													
[°C]	-35	40	20	40	78,2	267	67,3	0,90	3,09	0,78	86,5	0,81	1,72	EN12900 LBP			
[°F]	-31	104	68	104													
[°C]	-23,3	48,9	4,44	48,9	132,5	452	114,0	1,01	3,44	0,87	131,6	0,91	3,50	ARI540 LBP			
[°F]	-10	120	40	120													
[°C]	-23,3	40,6	32,2	32,2	180,0	615	154,9	1,41	4,81	1,21	127,8	0,90	3,50	AHAM LBP			
[°F]	-10	105	90	90													
[°C]	-35	45	32	45	73,2	250	63,0	0,84	2,86	0,72	87,4	0,82	1,58	opt			
[°F]	-31	113	89,6	113													

**Performance tables**

R134a, 220V/60Hz, 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	73,2	250	63,0	0,84	2,86	0,72	87,4	0,82	1,58
cond. pressure	-30	-22	105,6	361	90,9	0,99	3,38	0,85	106,7	0,86	2,28
pc= 45/113	-25	-13	142,3	486	122,5	1,14	3,91	0,98	124,4	0,90	3,08
return gas temp.	-23,3	-10	156,0	533	134,3	1,20	4,10	1,03	130,1	0,91	3,38
RGT= 32/90	-20	-4	184,8	631	159,1	1,31	4,49	1,13	140,7	0,93	4,02
liquid temp	-15	5	234,7	801	202,0	1,51	5,14	1,30	155,9	0,97	5,12
Tliq= 45/113	-10	14	293,3	1002	252,4	1,72	5,88	1,48	170,3	1,01	6,42
[°C / °F]	-35	-31	58,9	201	50,7	0,68	2,32	0,58	86,8	0,81	1,40
cond. pressure	-30	-22	87,2	298	75,0	0,81	2,78	0,70	107,0	0,85	2,08
pc= 55/131	-25	-13	119,0	406	102,4	0,94	3,22	0,81	126,1	0,90	2,85
return gas temp	-23,3	-10	130,9	447	112,7	0,99	3,38	0,85	132,4	0,91	3,13
RGT= 32/90	-20	-4	155,9	532	134,2	1,08	3,69	0,93	144,4	0,94	3,74
liquid temp	-15	5	199,3	681	171,5	1,23	4,20	1,06	162,1	0,99	4,80
Tliq= 55/131	-10	14	250,7	856	215,7	1,40	4,77	1,20	179,3	1,04	6,06



# 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)**

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