

Model

Designation	NL9FT	220-240V/50Hz 1~	220-240V/60Hz 1~	Sales code:	105G6059
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	32cST	Displacement	8,35cm³ / 0,51cu.in
Oil quantity	268cm³ / 9,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2360cm³ / 79,8fl.oz		
Weight	10kg / 22lbs		
Motor protection	1# internal		
Winding resistance main	8,9Ω (at 25°C)		
Winding resistance aux	12Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with NL9FT

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
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	VDE	VDE	VDE
Starting torque	HST	HST	LST	LST
Note	- / -			

Applications with NL9FT

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

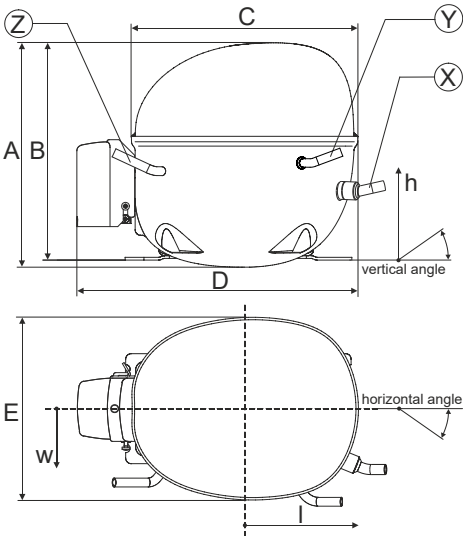
Electrical data - Configurations with NL9FT

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	relay	relay	PTC	PTC
Run capacitor	-/-	-/-	-/-	-/-
Start capacitor	80μF	80μF	-/-	-/-
LRA (locked rotor amps / 4s)	9A		8,4A	
RLA (rated load amps / 1s)	1,6A	-/-A	1,6A	-/-A
Cut in current	12,8A		12,8A	

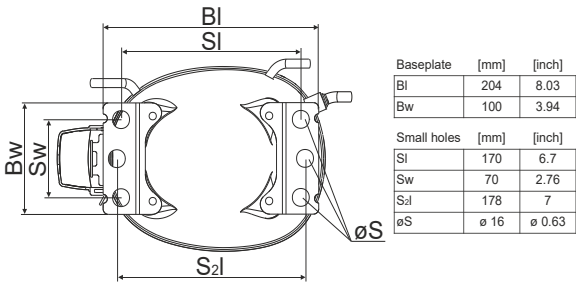
Model			
Designation	NL9FT	220-240V/50Hz 1~ 220-240V/60Hz 1~	Sales code: 105G6059

Compressor dimensions

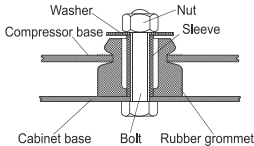
Housing	A Height	197mm / 7,76in	
	B Height	191mm / 7,52in	
	C Length shell	205mm / 8,07in	
	D Length w. cover	254mm / 10in	
	E Width	166mm / 6,54in	
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 6,11-6,29	øi 5,12-5,22	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,24-0,25	øi 0,2-0,21	øi 0,24-0,25
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



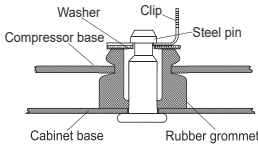
Compressor fixation



Bolt joint

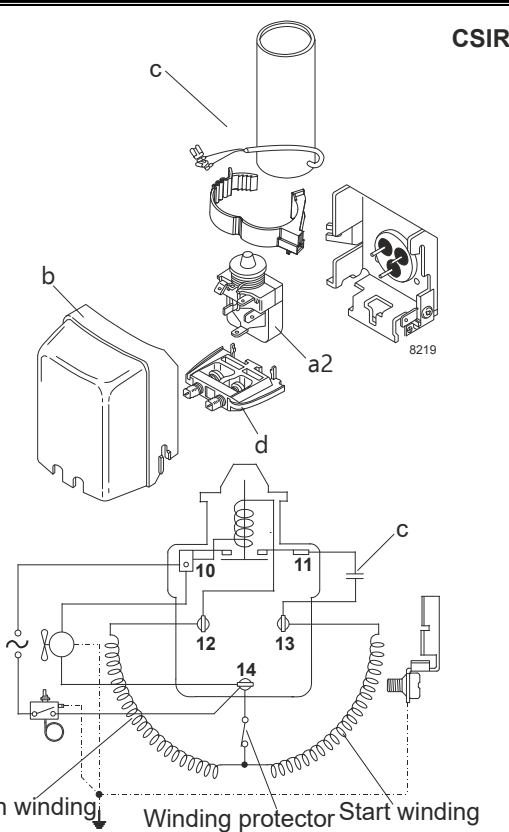


Snap-on



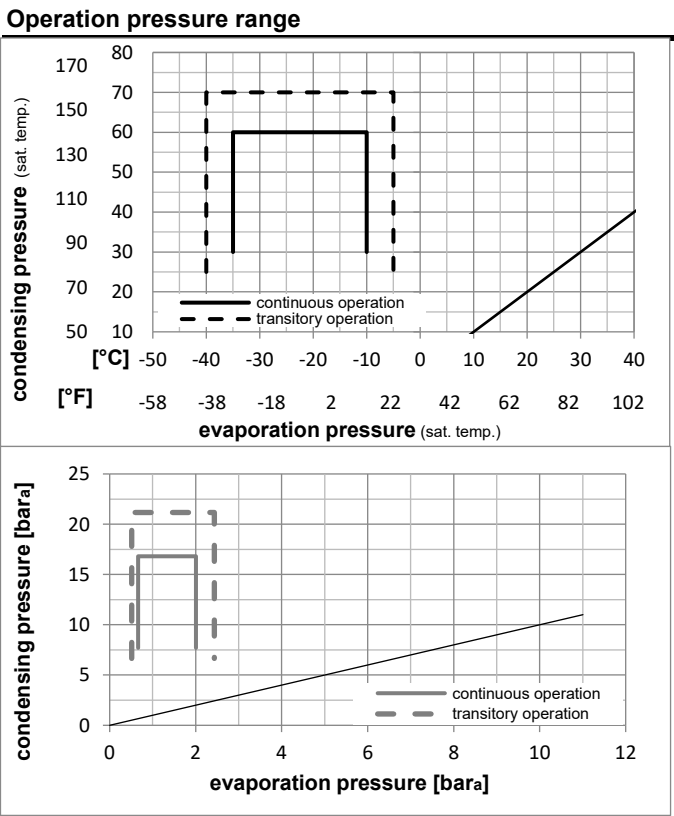
Mounting accessories	one comp.	multi pack
Bolt joint M6 ø16mm	118-1917	118-1918
Bolt joint ø1/4" ø16mm	118-1946	
Snap-on ø7,3 ø16mm	118-1947	118-1919

Model				
Designation	NL9FT	220-240V/50Hz	Conf. 1	Sales code: 105G6059

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

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	fan 1,5m/s	n/a	n/a
43°C / 110°F	fan 1,5m/s	n/a	n/a



Components		
a2	relay	117U6015
c	start capacitor (80µF)	117U5015
b	plastic cover	103N2010
d	cord relief	103N1010

Alternative components		
b	plastic cover	103N2011

Model

Designation

NL9FT

220-240V/50Hz

Conf. 1

Sales code:

105G6059

Optimization + standard conditions

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

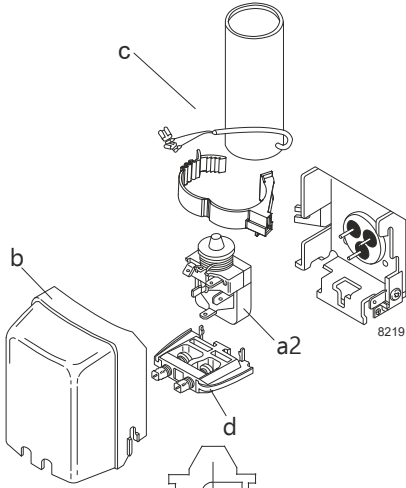
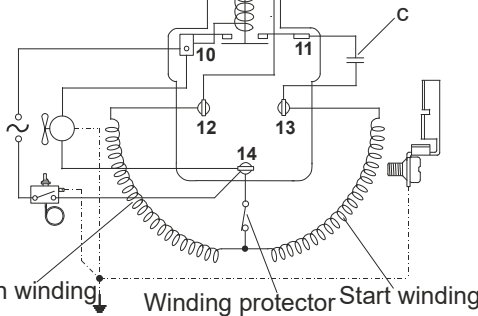
Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)		Return gas temp.		Liquid temp.		Cooling capacity		COP		EER		Power consumption		Current consumption		Ref. mass flow		
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m								
[°C]	[°F]																			ASHRAE LBP
-23	54	32	32	219,1	748	188,6	1,23	4,21	1,06	177,9	1,30	4,25								
-10	130	90	90																	
-25	55	32	55	161,6	552	139,0	0,95	3,26	0,82	169,5	1,28	3,86								cecomaf LBP
-13	131	90	131																	
-35	40	20	40	114,5	391	98,6	0,91	3,10	0,78	126,1	1,18	2,51								EN12900 LBP
-31	104	68	104																	
-23	49	4,4	49	180,3	616	155,1	1,02	3,48	0,88	176,9	1,30	4,76								ARI540 LBP
-10	120	40	120																	
-23	41	32	32	245,5	839	211,3	1,43	4,88	1,23	171,7	1,29	4,77								AHAM LBP
-10	105	90	90																	
-35	45	32	45	107,4	367	92,5	0,84	2,88	0,73	127,4	1,19	2,32								opt
-31	113	90	113																	

Performance tables

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

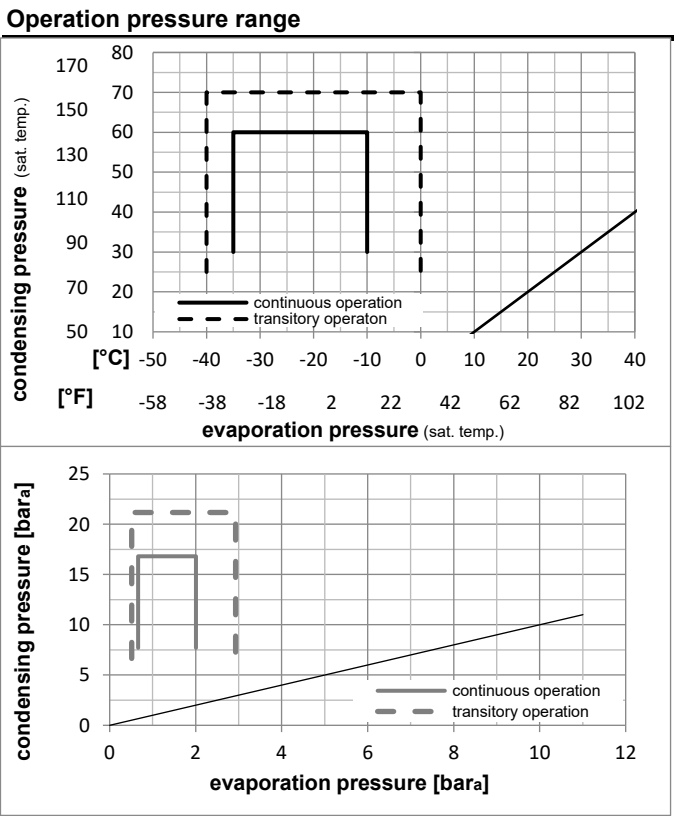
	pe		Cooling capacity			COP		EER		P1		I		m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]		[W]		[A]		[kg/h]	
[°C / °F]	-35	-31	107,4	367	92,5	0,84	2,88	0,73		127,4		1,19		2,32	
cond. pressure	-30	-22	145,8	498	125,4	1,00	3,41	0,86		146,0		1,23		3,15	
pc= 45/113	-25	-13	193,8	662	166,8	1,16	3,96	1,00		167,2		1,28		4,20	
return gas temp.	-23	-10	212,6	726	183,0	1,22	4,15	1,05		174,8		1,30		4,61	
RGT= 32/90	-20	-4	252,9	864	217,6	1,33	4,54	1,14		190,2		1,35		5,49	
liquid temp	-15	5	324,2	1107	279,0	1,51	5,17	1,30		214,3		1,42		7,07	
Tliq= 45/113	-10	14	409,1	1397	352,1	1,71	5,85	1,47		238,8		1,51		8,95	
[°C / °F]	-35	-31	86,9	297	74,8	0,69	2,34	0,59		126,8		1,18		2,07	
cond. pressure	-30	-22	120,0	410	103,3	0,82	2,80	0,71		146,4		1,22		2,86	
pc= 55/131	-25	-13	161,6	552	139,0	0,95	3,26	0,82		169,5		1,28		3,86	
return gas temp	-23	-10	177,9	607	153,1	1,00	3,41	0,86		177,9		1,30		4,26	
RGT= 32/90	-20	-4	212,9	727	183,2	1,09	3,73	0,94		195,2		1,36		5,11	
liquid temp	-15	5	275,3	940	236,9	1,24	4,22	1,06		222,8		1,45		6,63	
Tliq= 55/131	-10	14	349,9	1195	301,1	1,39	4,75	1,20		251,6		1,55		8,46	

Model				
Designation	NL9FT	208-230V/60Hz	Conf. 2	Sales code: 105G6059

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

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	fan 1,5m/s	n/a	n/a
43°C / 110°F	fan 1,5m/s	n/a	n/a



Components		
a2	relay	117U6015
c	start capacitor (80µF)	117U5015
b	plastic cover	103N2010
d	cord relief	103N1010

Alternative components		
b	plastic cover	103N2011

Model

Designation

NL9FT

208-230V/60Hz

Conf. 2

Sales code:

105G6059

Optimization + standard conditions

R134a, 220V/60Hz, CSIR, fan 1,5m/s, VDE

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption			
					Return gas temp.						Current consumption			
					Liquid temp.						Ref. mass flow			
					Cooling capacity									
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	COP	EER		P1	I	m	
	[°C]							[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23	54	32	32	269,6	921	232,0	1,38	4,72	1,19	195,2	1,43	5,23	ASHRAE LBP
	[°F]	-10	130	90										
	-25	55	32	55	197,4	674	169,9	1,07	3,66	0,92	184,4	1,39	4,72	cecomaf LBP
	[°C]													
	[°F]	-13	131	90	131									
	-35	40	20	40	121,5	415	104,6	0,96	3,27	0,82	126,8	1,19	2,67	EN12900 LBP
	[°C]													
	[°F]	-31	104	68	104									
	-23	49	4,4	49	221,3	756	190,5	1,14	3,89	0,98	194,4	1,43	5,85	ARI540 LBP
	[°C]													
	[°F]	-10	120	40	120									
	-23	41	32	32	300,1	1025	258,3	1,59	5,43	1,37	188,8	1,42	5,83	AHAM LBP
	[°C]													
	[°F]	-10	105	90	90									
	-35	45	32	45	113,8	388	97,9	0,89	3,02	0,76	128,5	1,20	2,45	opt
	[°C]													
	[°F]	-31	113	90	113									

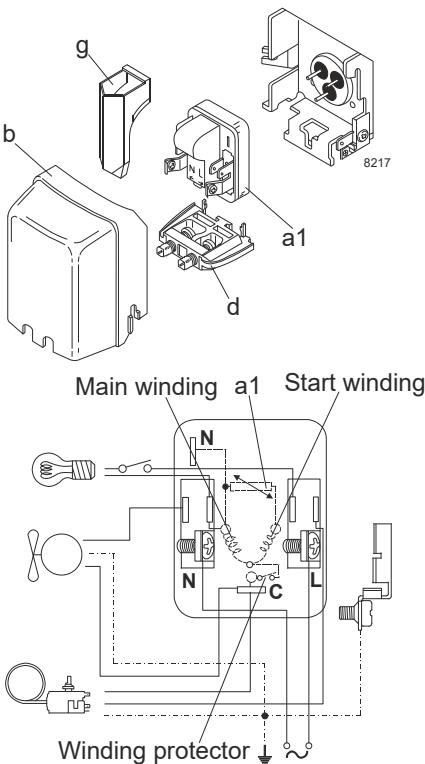
Performance tables

R134a, 220V/60Hz, CSIR, fan 1,5m/s, VDE

	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	113,8	388	97,9	0,89	3,02	0,76	128,5	1,20	2,45		
cond. pressure	-30	-22	170,4	582	146,7	1,11	3,77	0,95	154,2	1,29	3,68		
pc= 45/113	-25	-13	235,8	805	203,0	1,29	4,42	1,11	182,2	1,39	5,11		
return gas temp.	-23	-10	260,4	889	224,1	1,36	4,63	1,17	192,2	1,43	5,65		
RGT= 32/90	-20	-4	312,1	1066	268,6	1,47	5,03	1,27	212,0	1,50	6,78		
liquid temp	-15	5	401,3	1371	345,4	1,65	5,64	1,42	243,0	1,62	8,75		
Tliq= 45/113	-10	14	505,6	1727	435,2	1,84	6,29	1,58	274,7	1,74	11,07		
[°C / °F]	-35	-31	91,2	312	78,5	0,71	2,43	0,61	128,2	1,19	2,17		
cond. pressure	-30	-22	140,7	480	121,1	0,91	3,11	0,78	154,5	1,28	3,36		
pc= 55/131	-25	-13	197,4	674	169,9	1,07	3,66	0,92	184,4	1,39	4,72		
return gas temp	-23	-10	218,8	747	188,3	1,12	3,83	0,96	195,2	1,43	5,24		
RGT= 32/90	-20	-4	263,7	900	226,9	1,21	4,15	1,05	217,1	1,51	6,32		
liquid temp	-15	5	341,4	1166	293,8	1,35	4,62	1,16	252,2	1,65	8,22		
Tliq= 55/131	-10	14	432,8	1478	372,5	1,50	5,11	1,29	289,2	1,79	10,47		

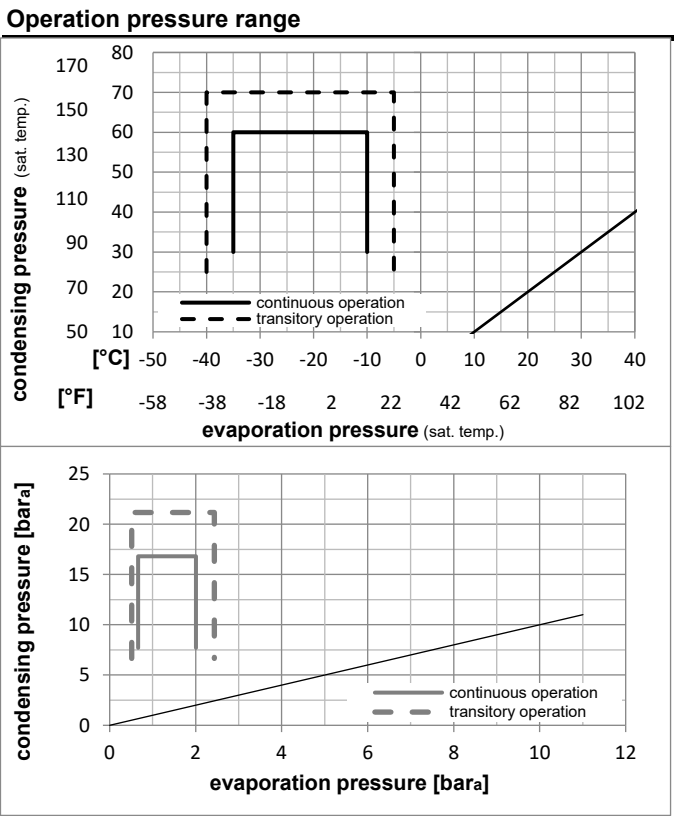
Model				
Designation	NL9FT	220-240V/50Hz	Conf. 3	Sales code: 105G6059

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



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	fan 1,5m/s	n/a	n/a
43°C / 110°F	fan 1,5m/s	n/a	n/a



Components		
a1	PTC starter (220V, 25Ohm, 4.8mm)	103N0018
b	plastic cover	103N2011
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Alternative components		
a1	PTC starter (220V, 25Ohm, 6.3mm)	103N0011
b	plastic cover	103N2010
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Model

Designation

NL9FT

220-240V/50Hz

Conf. 3

Sales code:

105G6059

Optimization + standard conditions

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

Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)		Return gas temp.		Liquid temp.		Cooling capacity		COP		EER		Power consumption		Current consumption		Ref. mass flow	
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m							
[°C]	[°F]																		
-23	54	32	32	219,1	748	188,6	1,23	4,21	1,06	177,9	1,30	4,25	ASHRAE LBP						
-10	130	90	90																
-25	55	32	55	161,6	552	139,0	0,95	3,26	0,82	169,5	1,28	3,86	cecomaf LBP						
-13	131	90	131																
-35	40	20	40	114,5	391	98,6	0,91	3,10	0,78	126,1	1,18	2,51	EN12900 LBP						
-31	104	68	104																
-23	49	4,4	49	180,3	616	155,1	1,02	3,48	0,88	176,9	1,30	4,76	ARI540 LBP						
-10	120	40	120																
-23	41	32	32	245,5	839	211,3	1,43	4,88	1,23	171,7	1,29	4,77	AHAM LBP						
-10	105	90	90																
-35	45	32	45	107,4	367	92,5	0,84	2,88	0,73	127,4	1,19	2,32	opt						
-31	113	90	113																

Performance tables

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

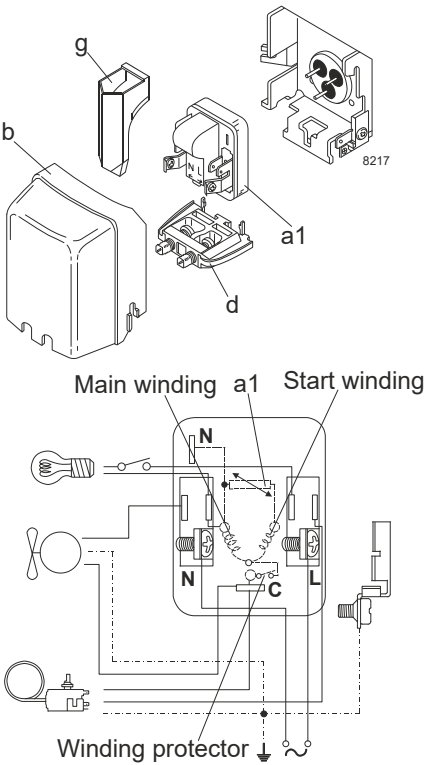
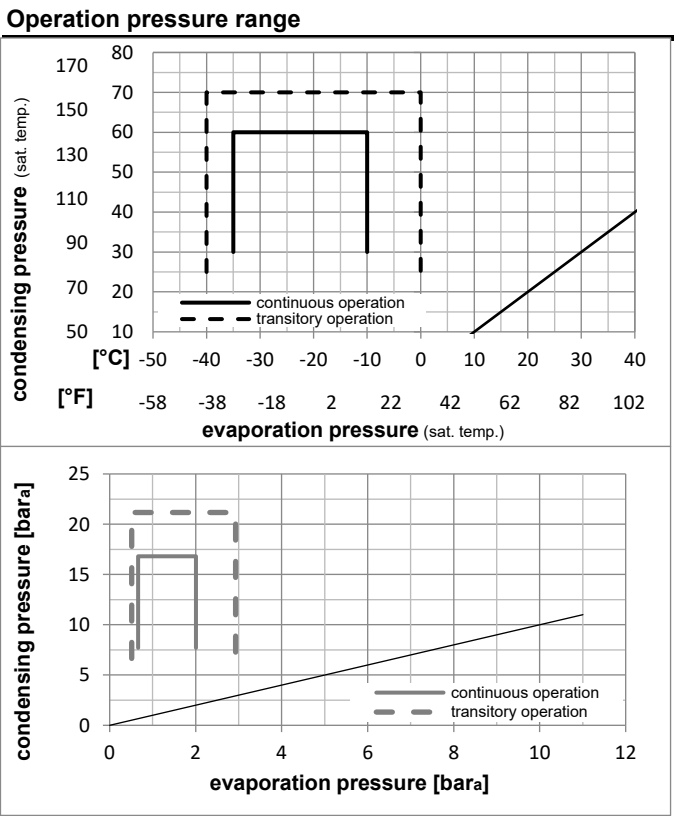
	pe		Cooling capacity			COP		EER		P1		I		m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]		[W]		[A]		[kg/h]	
[°C / °F]	-35	-31	107,4	367	92,5	0,84	2,88	0,73	127,4	1,19	2,32				
cond. pressure	-30	-22	145,8	498	125,4	1,00	3,41	0,86	146,0	1,23	3,15				
pc= 45/113	-25	-13	193,8	662	166,8	1,16	3,96	1,00	167,2	1,28	4,20				
return gas temp.	-23	-10	212,6	726	183,0	1,22	4,15	1,05	174,8	1,30	4,61				
RGT= 32/90	-20	-4	252,9	864	217,6	1,33	4,54	1,14	190,2	1,35	5,49				
liquid temp	-15	5	324,2	1107	279,0	1,51	5,17	1,30	214,3	1,42	7,07				
Tliq= 45/113	-10	14	409,1	1397	352,1	1,71	5,85	1,47	238,8	1,51	8,95				
[°C / °F]	-35	-31	86,9	297	74,8	0,69	2,34	0,59	126,8	1,18	2,07				
cond. pressure	-30	-22	120,0	410	103,3	0,82	2,80	0,71	146,4	1,22	2,86				
pc= 55/131	-25	-13	161,6	552	139,0	0,95	3,26	0,82	169,5	1,28	3,86				
return gas temp	-23	-10	177,9	607	153,1	1,00	3,41	0,86	177,9	1,30	4,26				
RGT= 32/90	-20	-4	212,9	727	183,2	1,09	3,73	0,94	195,2	1,36	5,11				
liquid temp	-15	5	275,3	940	236,9	1,24	4,22	1,06	222,8	1,45	6,63				
Tliq= 55/131	-10	14	349,9	1195	301,1	1,39	4,75	1,20	251,6	1,55	8,46				

Model				
Designation	NL9FT	208-230V/60Hz	Conf. 4	Sales code: 105G6059

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

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	fan 1,5m/s	n/a	n/a
43°C / 110°F	fan 1,5m/s	n/a	n/a



Components		
a1	PTC starter (220V, 25Ohm, 4.8mm)	103N0018
b	plastic cover	103N2011
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Alternative components		
a1	PTC starter (220V, 25Ohm, 6.3mm)	103N0011
b	plastic cover	103N2010
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Model

Designation

NL9FT

208-230V/60Hz

Conf. 4

Sales code:

105G6059

Optimization + standard conditions

R134a, 220V/60Hz, RSIR, fan 1,5m/s, VDE

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption			
					Return gas temp.						Current consumption			
					Liquid temp.						Ref. mass flow			
					Cooling capacity									
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	COP	EER		P1	I	m	
								[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23	54	32	32	269,6	921	232,0	1,38	4,72	1,19	195,2	1,43	5,23	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	197,4	674	169,9	1,07	3,66	0,92	184,4	1,39	4,72	cecomaf LBP
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	121,5	415	104,6	0,96	3,27	0,82	126,8	1,19	2,67	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-23	49	4,4	49	221,3	756	190,5	1,14	3,89	0,98	194,4	1,43	5,85	ARI540 LBP
[°F]	-10	120	40	120										
[°C]	-23	41	32	32	300,1	1025	258,3	1,59	5,43	1,37	188,8	1,42	5,83	AHAM LBP
[°F]	-10	105	90	90										
[°C]	-35	45	32	45	113,8	388	97,9	0,89	3,02	0,76	128,5	1,20	2,45	opt
[°F]	-31	113	90	113										

Performance tables

R134a, 220V/60Hz, RSIR, fan 1,5m/s, VDE

	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	113,8	388	97,9	0,89	3,02	0,76	128,5	1,20	2,45		
cond. pressure	-30	-22	170,4	582	146,7	1,11	3,77	0,95	154,2	1,29	3,68		
pc= 45/113	-25	-13	235,8	805	203,0	1,29	4,42	1,11	182,2	1,39	5,11		
return gas temp.	-23	-10	260,4	889	224,1	1,36	4,63	1,17	192,2	1,43	5,65		
RGT= 32/90	-20	-4	312,1	1066	268,6	1,47	5,03	1,27	212,0	1,50	6,78		
liquid temp	-15	5	401,3	1371	345,4	1,65	5,64	1,42	243,0	1,62	8,75		
Tliq= 45/113	-10	14	505,6	1727	435,2	1,84	6,29	1,58	274,7	1,74	11,07		
[°C / °F]	-35	-31	91,2	312	78,5	0,71	2,43	0,61	128,2	1,19	2,17		
cond. pressure	-30	-22	140,7	480	121,1	0,91	3,11	0,78	154,5	1,28	3,36		
pc= 55/131	-25	-13	197,4	674	169,9	1,07	3,66	0,92	184,4	1,39	4,72		
return gas temp	-23	-10	218,8	747	188,3	1,12	3,83	0,96	195,2	1,43	5,24		
RGT= 32/90	-20	-4	263,7	900	226,9	1,21	4,15	1,05	217,1	1,51	6,32		
liquid temp	-15	5	341,4	1166	293,8	1,35	4,62	1,16	252,2	1,65	8,22		
Tliq= 55/131	-10	14	432,8	1478	372,5	1,50	5,11	1,29	289,2	1,79	10,47		