

Model

Designation	NL8F	220-240V/50Hz 1~	Sales code:	105G6822
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	19,2cSt	Displacement	7,95cm ³ / 0,49cu.in
Oil quantity	265cm ³ / 9fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2230cm ³ / 75,4fl.oz		
Weight	9,8kg / 21,6lbs		
Motor protection	1# internal		
Winding resistance main	11Ω (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

	Conf. 1	Conf. 2
Motor configuration	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

	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 NL8F

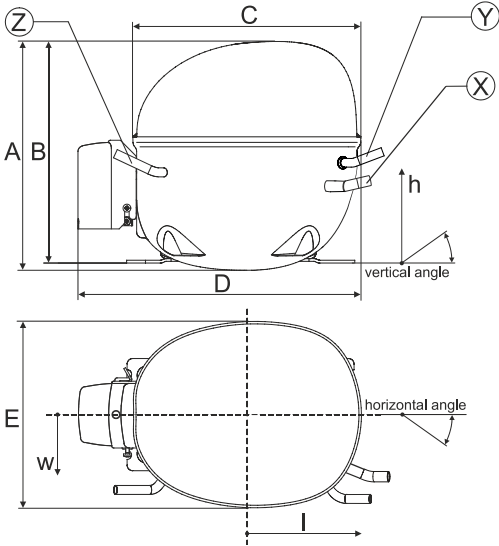
	Conf. 1	Conf. 2
Starting device type	relay	PTC
Run capacitor	-/-	-/-
Start capacitor	80μF	-/-
LRA (locked rotor amps / 4s/ U(N))	8,7A	7,9A
RLA (rated load amps / 1s/ U(N))		
Cut in current (U(N))	10,9A	7,9A

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Compressor dimensions

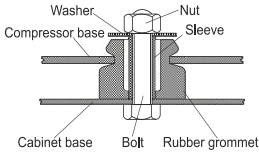
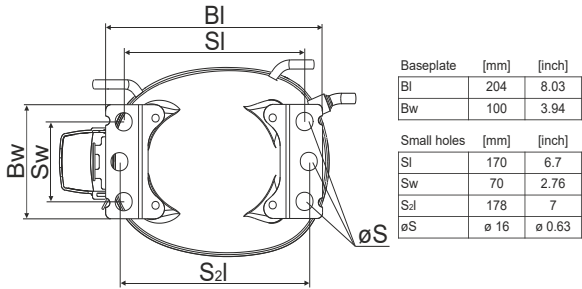
Housing	A Height	197mm / 7,76in
	B Height	191mm / 7,52in
	C Length shell	205mm / 8,07in
	D Length w. cover	254mm / 10in
	E Width	166mm / 6,54in

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

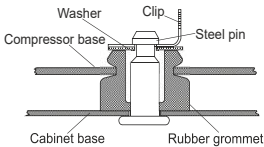


Compressor fixation

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	
Bolt joint ø1/4" ø19mm	118-1949	
Snap-on ø7,3 ø16mm	118-1947	118-1919

Application notes

Provision for PE Grounding is located at the PE Stamp on the compressor

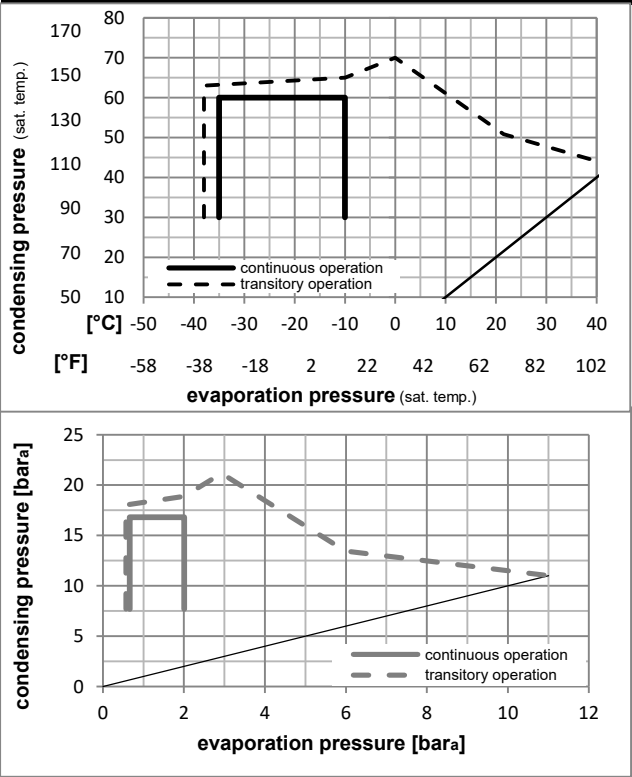
Model				
Designation	NL8F	220-240V/50Hz	Conf. 1	Sales code: 105G6822

Configuration		Electrical accessories / wiring diagram		
Motor configuration	CSIR	CSIR		
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R134a			
Application	LBP			
Voltage range	198-254V			
Starting torque	HST			
Approvals	VDE			
	EAC			

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 38°C / 50 - 101°F
Machine room temperature range:	10 - 43°C / 50 - 110°F
Compressor cooling:	static

Operation pressure range



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

Alternative components

b	plastic cover	103N2011
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Model

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

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						Ref. mass flow																																																																																													
Liquid temp.					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					32					32					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					90					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					49					4,4					49					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					41					32					32					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					90					113																																																																																				

Performance tables

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

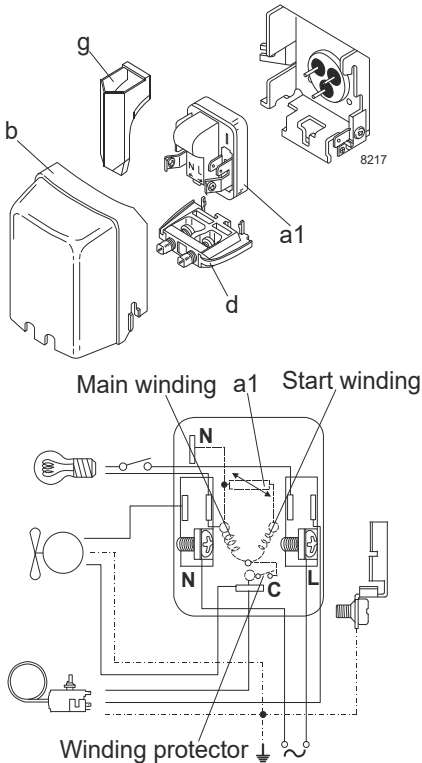
	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	99,8	341	85,9	0,87	2,96	0,75	115,0	0,92	2,15
cond. pressure	-30	-22	133,7	457	115,1	1,02	3,49	0,88	131,0	0,97	2,89
pc= 45/113	-25	-13	175,7	600	151,2	1,18	4,02	1,01	149,1	1,03	3,81
return gas temp.	-23	-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

Model				
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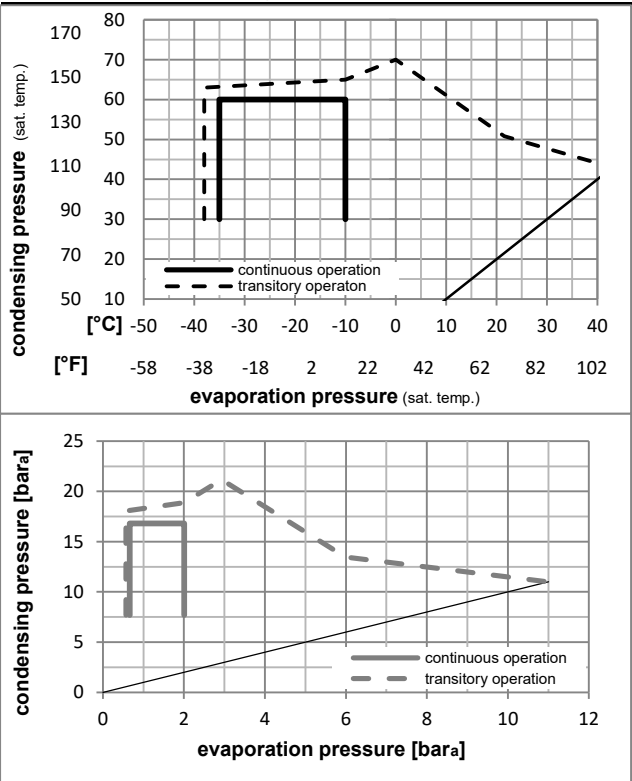
Configuration		Electrical accessories / wiring diagram		
Motor configuration	RSIR	RSIR		
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R134a			
Application	LBP			
Voltage range	198-254V			
Starting torque	LST			
Approvals	VDE			
	EAC			

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 38°C / 50 - 101°F
Machine room temperature range:	10 - 43°C / 50 - 110°F
Compressor cooling:	static



Operation pressure range



Components		
a1	PTC starter (220V, 25Ohm, 4.8mm)	103N0018
b	plastic cover	103N2010
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Alternative components		
a1	PTC starter (220V, 25Ohm, 6.3mm)	103N0011
b	plastic cover	103N2011
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Model

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

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			Current consumption			Ref. mass flow		
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	P1	I	m	[W]	[A]	[kg/h]	P1	I	m	[W]	[A]	[kg/h]	P1	I	m	[W]	[A]	[kg/h]
[°C]	-23	54	32	32	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	90	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	49	4,4	49	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	41	32	32	223,8	764	192,6	1,45	4,96	1,25	154,1	1,06	4,35	AHAM LBP																
[°F]	-10	105	90	90																										
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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]	[W]	[A]	[kg/h]	[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				
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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				
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