

## Single Pack NL11MF 220-240V 50Hz CSIR

Single pack code number: **195B4373**

Position	Title	Code	Amount
1	Compressor NL11MF	105G6156	1
2	Starting relay	117U6022	1
3	Starting capacitor (125 $\mu$ F 220V, 6.3mm)	117U5018	1
4	Cord relief	103N1010	1
5	Cover	103N2011	1
6	Bolt joint for one compressor   M6   $\varnothing$ 16mm	118-1917	1

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## Model

Designation	<b>NL11MF</b>	<b>220-240V/50Hz 1~</b>	Sales code:	<b>105G6156</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R134a</b>
Oil viscosity	32cST	Displacement	11,15cm <sup>3</sup> / 0,68cu.in
Oil quantity	298cm <sup>3</sup> / 10,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	600g / 21,2oz		
Free gas volume comp.	2360cm <sup>3</sup> / 79,8fl.oz		
Weight	10,5kg / 23,1lbs		
Motor protection	1# internal		
Winding resistance main	6,1Ω (at 25°C)		
Winding resistance aux	17,5Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



## General - Configurations with NL11MF

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

## Applications with NL11MF

	<b>Conf. 1</b>	<b>Conf. 2</b>
Refrigerant	R134a	R134a
Application	MBP+HBP	MBP+HBP
System cooling	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK
Long interval pull down	OK	OK

## Electrical data - Configurations with NL11MF

	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	relay	PTC
Run capacitor	- / -	- / -
Start capacitor	125μF	- / -
LRA (locked rotor amps / 4s)	16,6A	13A
RLA (rated load amps / 1s)	2,8A	2,8A
Cut in current	17A	17A

## Model

Designation

**NL11MF**

220-240V/50Hz 1~

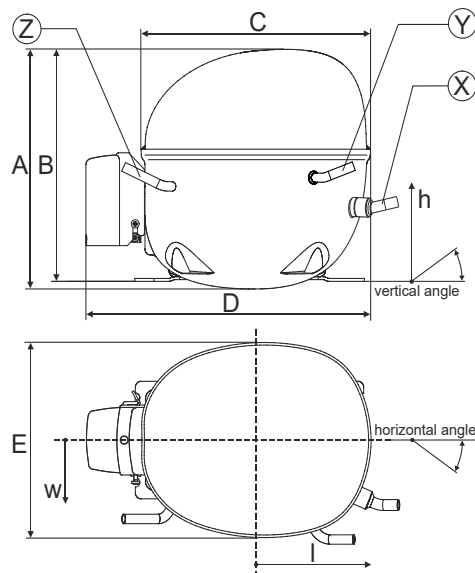
Sales code:

**105G6156**

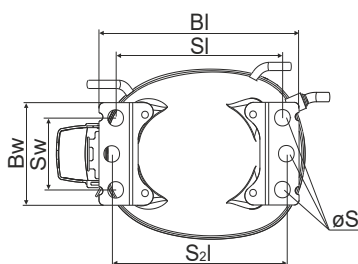
## Compressor dimensions

Housing	A Height	203mm / 7,99in
	B Height	197mm / 7,76in
	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 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside)	[in]	øi 0,32-0,33	øi 0,24-0,25	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

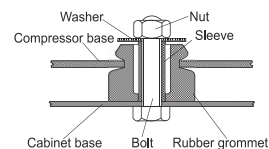


## Compressor fixation

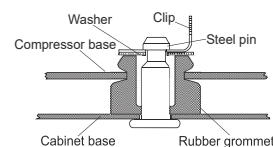


Baseplate	[mm]	[inch]
BI	204	8.03
BW	100	3.94
Small holes	[mm]	[inch]
SI	170	6.7
SW	70	2.76
S2I	178	7
øS	ø 16	ø 0.63

### 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

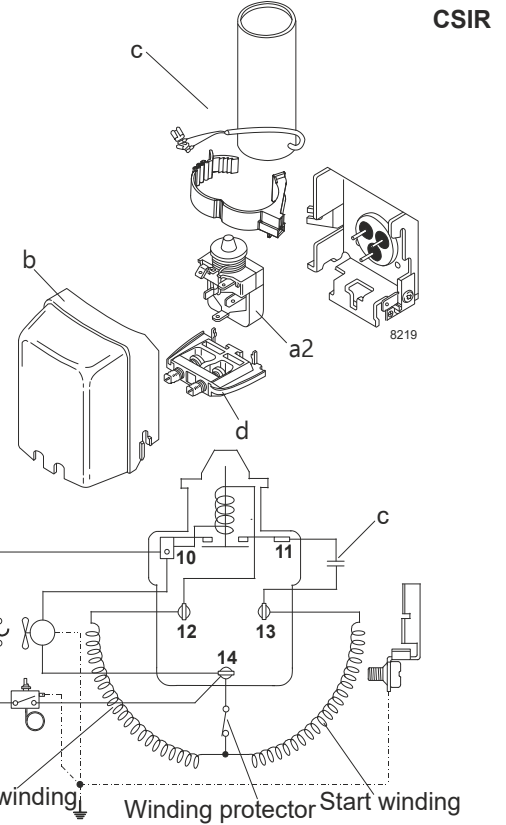
### Model

Designation	<b>NL11MF</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>105G6156</b>
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### Configuration

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

### Electrical accessories / wiring diagram

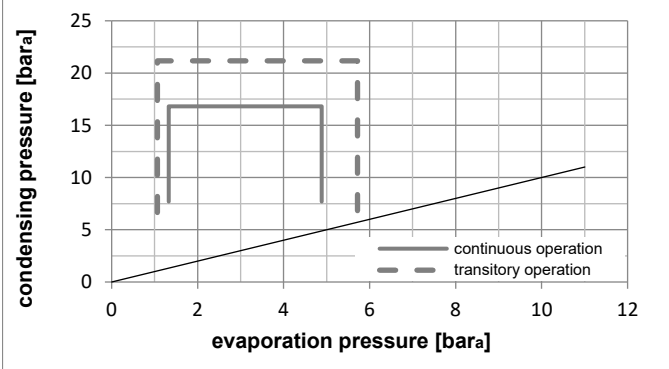
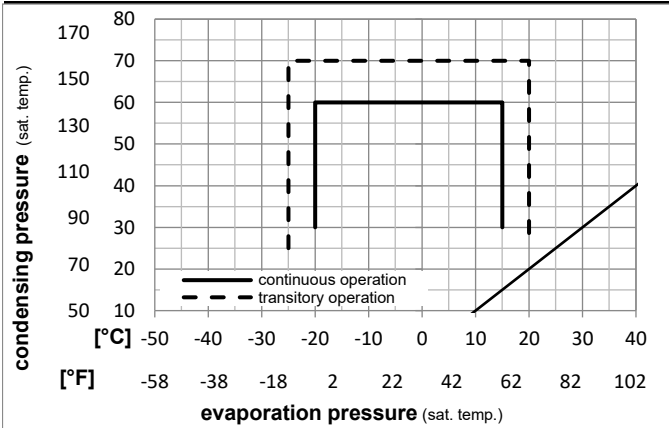


### Ambient temperatures / system cooling

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	n/a	fan 3m/s	fan 3m/s
38°C / 100°F	n/a	fan 3m/s	fan 3m/s
43°C / 110°F	n/a	fan 3m/s	fan 3m/s

### Operation pressure range



### Components

a2	relay	117U6022
c	start capacitor	117U5018
b	plastic cover	103N2011
d	cord relief	103N1010

## Model

Designation **NL11MF** **220-240V/50Hz** Conf. 1 Sales code: **105G6156**

## Optimization + standard conditions

R134a, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, 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]	-7	54	35	46	626,5	2140	539,2	1,61	5,51	1,39	388,4	2,46	13,67	ASHRAE MBP	
[°F]	20	130	95	115											
[°C]	-10	55	32	55	485,0	1656	417,4	1,35	4,60	1,16	360,0	2,37	11,73	cecomaf MBP	
[°F]	14	131	90	131											
[°C]	-10	45	20	45	546,1	1865	470,0	1,59	5,44	1,37	342,8	2,31	12,78	EN12900 MBP	
[°F]	14	113	68	113											
[°C]	-7	49	18	49	594,7	2031	511,8	1,58	5,40	1,36	376,3	2,42	14,69	ARI540 MBP	
[°F]	20	120	65	120											
[°C]	-10	45	32	45	566,6	1935	487,6	1,65	5,64	1,42	342,8	2,31	12,40	opt	
[°F]	14	113	90	113											
[°C]	-25	45	32	45	264,5	903	227,6	1,14	3,90	0,98	231,4	2,07	5,73	opt	
[°F]	-13	113	90	113											

## Performance tables

R134a, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, 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]	-20	-4	347,6	1187	299,2	1,30	4,44	1,12	267,5	2,13	7,55	
cond. pressure	-15	5	447,5	1528	385,1	1,47	5,01	1,26	304,8	2,21	9,75	
pc= 45/113	-10	14	566,6	1935	487,6	1,65	5,64	1,42	342,8	2,31	12,40	
return gas temp.	-5	23	707,6	2417	609,0	1,86	6,34	1,60	381,2	2,42	15,56	
RGT= 32/90	0	32	873,3	2982	751,6	2,08	7,11	1,79	419,5	2,55	19,31	
liquid temp	5	41	1066,2	3641	917,6	2,33	7,96	2,01	457,3	2,70	23,74	
Tliq= 45/113	15	59	1544,2	5274	1328,9	2,91	9,95	2,51	529,8	3,03	34,98	
[°C / °F]	-20	-4	292,0	997	251,3	1,06	3,63	0,92	274,5	2,14	7,00	
cond. pressure	-15	5	380,1	1298	327,1	1,20	4,10	1,03	316,5	2,25	9,15	
pc= 55/131	-10	14	485,0	1656	417,4	1,35	4,60	1,16	360,0	2,37	11,73	
return gas temp	-5	23	609,3	2081	524,4	1,51	5,15	1,30	404,5	2,51	14,81	
RGT= 32/90	0	32	755,7	2581	650,4	1,68	5,74	1,45	449,5	2,67	18,49	
liquid temp	5	41	926,8	3165	797,6	1,87	6,40	1,61	494,6	2,84	22,84	
Tliq= 55/131	15	59	1353,8	4623	1165,1	2,32	7,92	2,00	583,7	3,23	34,00	

## Model

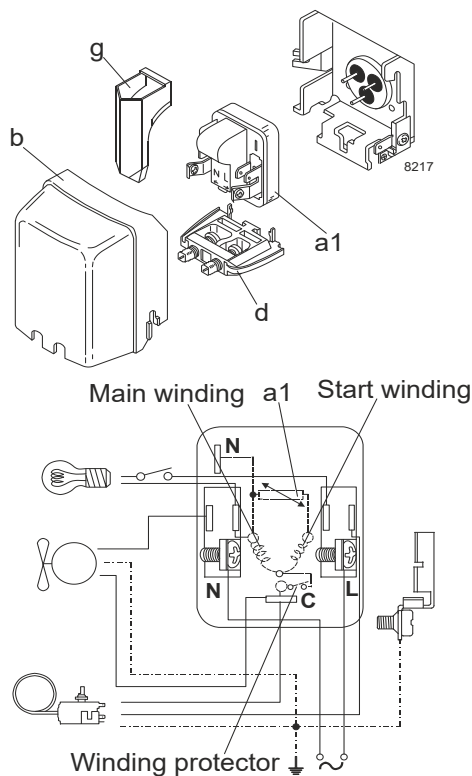
Designation	<b>NL11MF</b>	<b>220-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>105G6156</b>
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## Configuration

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

## Electrical accessories / wiring diagram

RSIR

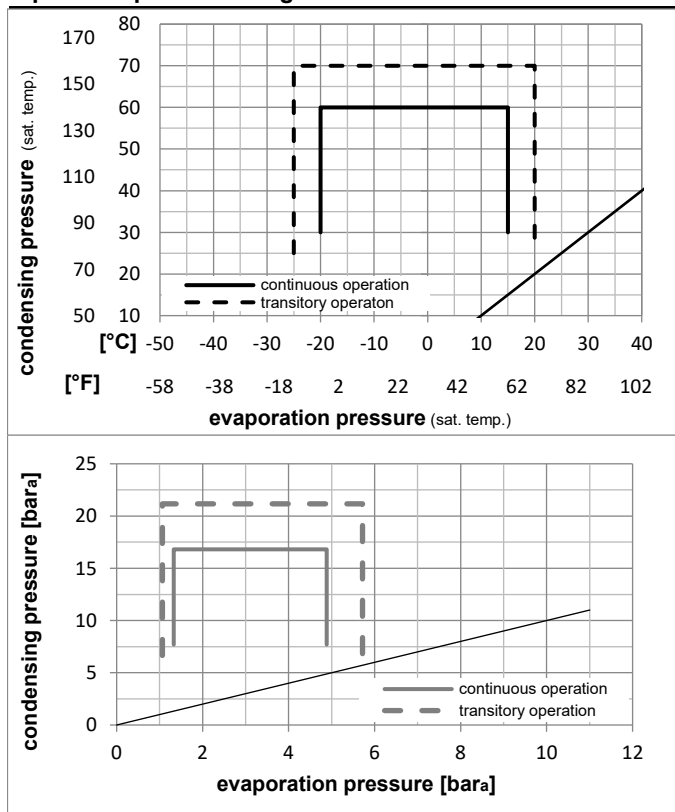


## Ambient temperatures / system cooling

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	n/a	fan 3m/s	fan 3m/s
38°C / 100°F	n/a	fan 3m/s	fan 3m/s
43°C / 110°F	n/a	fan 3m/s	fan 3m/s

## Operation pressure range



## Components

a1	PTC starter (220V, 250hm, 4.8mm)	103N0018
b	plastic cover	103N2011
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 **NL11MF** **220-240V/50Hz** Conf. 2 Sales code: **105G6156**

### Optimization + standard conditions

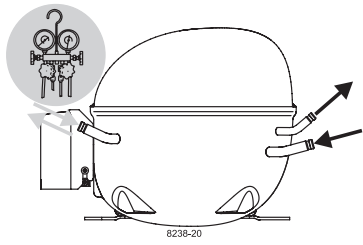
R134a, 220V/50Hz, RSIR, fan 3m/s, VDE, CCC, EAC

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	[W]	[A]	[kg/h]						
[°C]	[°F]																						
-7	20	54	35	46	626,5	2140	539,2	1,61	5,51	1,39	388,4	2,46	13,67								ASHRAE MBP		
-10	14	55	32	55	485,0	1656	417,4	1,35	4,60	1,16	360,0	2,37	11,73								cecomaf MBP		
-10	14	45	20	45	546,1	1865	470,0	1,59	5,44	1,37	342,8	2,31	12,78								EN12900 MBP		
-7	20	49	18	49	594,7	2031	511,8	1,58	5,40	1,36	376,3	2,42	14,69								ARI540 MBP		
-10	14	45	32	45	566,6	1935	487,6	1,65	5,64	1,42	342,8	2,31	12,40								opt		
-25	-13	45	32	45	264,5	903	227,6	1,14	3,90	0,98	231,4	2,07	5,73								opt		

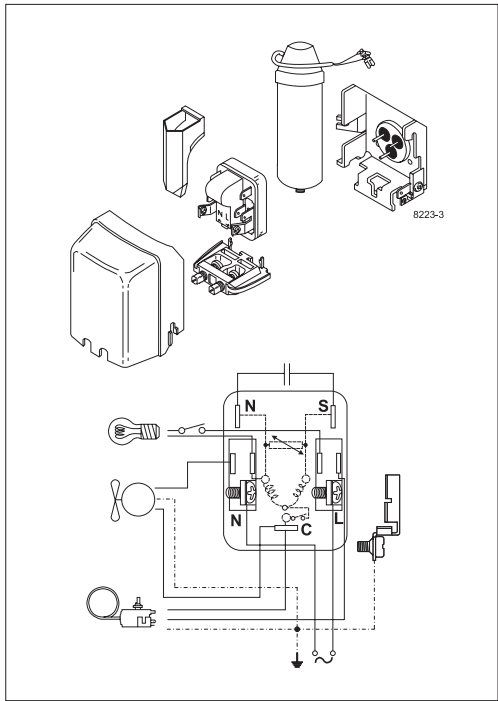
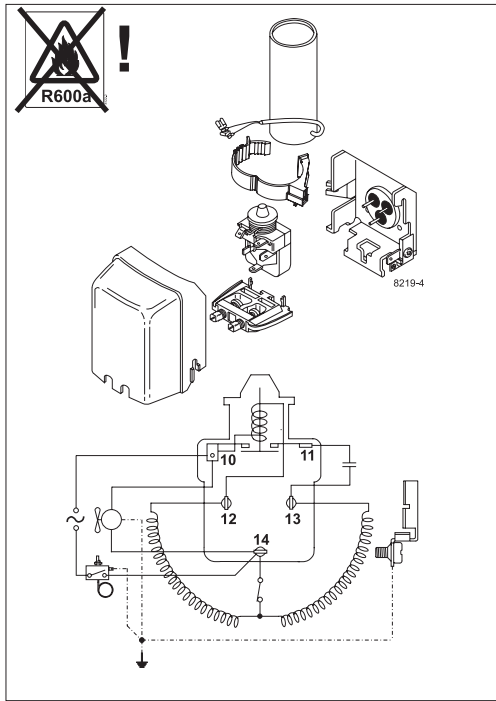
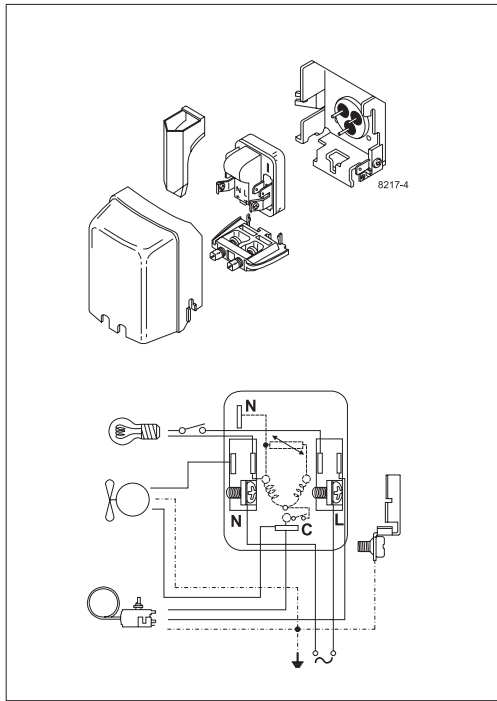
### Performance tables

R134a, 220V/50Hz, RSIR, fan 3m/s, VDE, CCC, EAC

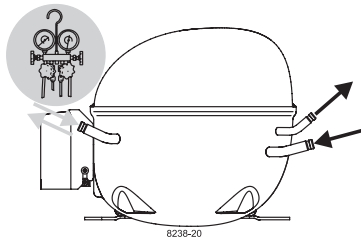
	pe		Cooling capacity			COP	EER	P1			I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C / °F]	-20	-4	347,6	1187	299,2	1,30	4,44	1,12	267,5	2,13	7,55	
cond. pressure	-15	5	447,5	1528	385,1	1,47	5,01	1,26	304,8	2,21	9,75	
pc= 45/113	-10	14	566,6	1935	487,6	1,65	5,64	1,42	342,8	2,31	12,40	
return gas temp.	-5	23	707,6	2417	609,0	1,86	6,34	1,60	381,2	2,42	15,56	
RGT= 32/90	0	32	873,3	2982	751,6	2,08	7,11	1,79	419,5	2,55	19,31	
liquid temp	5	41	1066,2	3641	917,6	2,33	7,96	2,01	457,3	2,70	23,74	
Tliq= 45/113	15	59	1544,2	5274	1328,9	2,91	9,95	2,51	529,8	3,03	34,98	
[°C / °F]	-20	-4	292,0	997	251,3	1,06	3,63	0,92	274,5	2,14	7,00	
cond. pressure	-15	5	380,1	1298	327,1	1,20	4,10	1,03	316,5	2,25	9,15	
pc= 55/131	-10	14	485,0	1656	417,4	1,35	4,60	1,16	360,0	2,37	11,73	
return gas temp	-5	23	609,3	2081	524,4	1,51	5,15	1,30	404,5	2,51	14,81	
RGT= 32/90	0	32	755,7	2581	650,4	1,68	5,74	1,45	449,5	2,67	18,49	
liquid temp	5	41	926,8	3165	797,6	1,87	6,40	1,61	494,6	2,84	22,84	
Tliq= 55/131	15	59	1353,8	4623	1165,1	2,32	7,92	2,00	583,7	3,23	34,00	



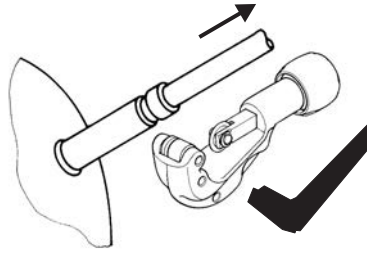
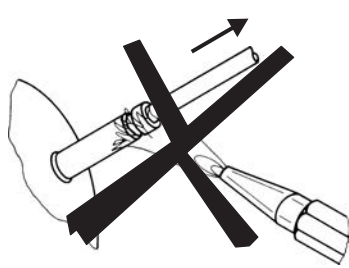
# NL Compressors







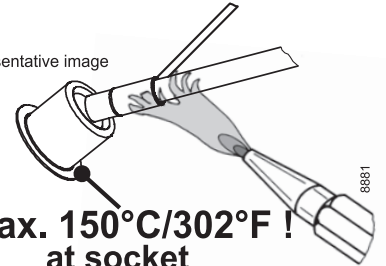
## Service/Repair – R600a, R290



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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