

## Single Pack NLE11MN 220-240V 50Hz CSIR

Single pack code number: **195B4195**

Position	Title	Code	Amount
1	Compressor NLE11MN	105H6177	1
2	Starting relay	117U7005	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>NLE11MN</b>	220-240V/50Hz 1~	Sales code:	<b>105H6177</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R290</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	400g / 14,1oz		
Free gas volume comp.	2360cm <sup>3</sup> / 79,8fl.oz		
Weight	11,8kg / 26lbs		
Motor protection	1# internal		
Winding resistance main	4,94Ω (at 25°C)		
Winding resistance aux	8,89Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



## General - Configurations with NLE11MN

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

## Applications with NLE11MN

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>
Refrigerant	R290	R290	R290
Application	MBP	MBP	MBP
System cooling	fan 3m/s	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK	OK
Long interval pull down	OK	OK	OK

## Electrical data - Configurations with NLE11MN

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>
Starting device type	relay	PTC	PTC
Run capacitor	-/-	-/-	4μF
Start capacitor	80μF	-/-	-/-
LRA (locked rotor amps / 4s)	13,65A	14,45A	14,2A
RLA (rated load amps / 1s)	2,8A	2,8A	2,5A
Cut in current	13,65A	19,4A	19,4A

## Model

Designation

**NLE11MN**

220-240V/50Hz 1~

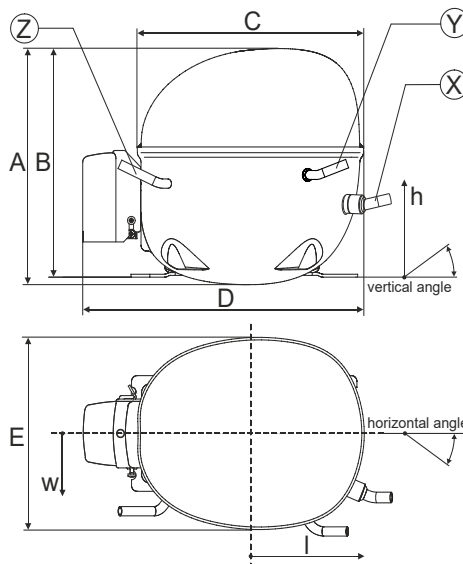
Sales code:

**105H6177**

## 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°	21°	155°
Position l/h/w	[mm]	132/69/57	94/102/81	-109/94/72
	[in]	5,2/2,7/2,2	3,7/4/3,2	-4,3/3,7/2,8
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		
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	
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	<b>NLE11MN</b>	<b>220-240V/50Hz</b>	Conf. 1	Sales code:	<b>105H6177</b>
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### Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	MBP
Voltage range	198-254V
Starting torque	HST
Approvals	CCC
	EAC
	VDE

### Electrical accessories / wiring diagram



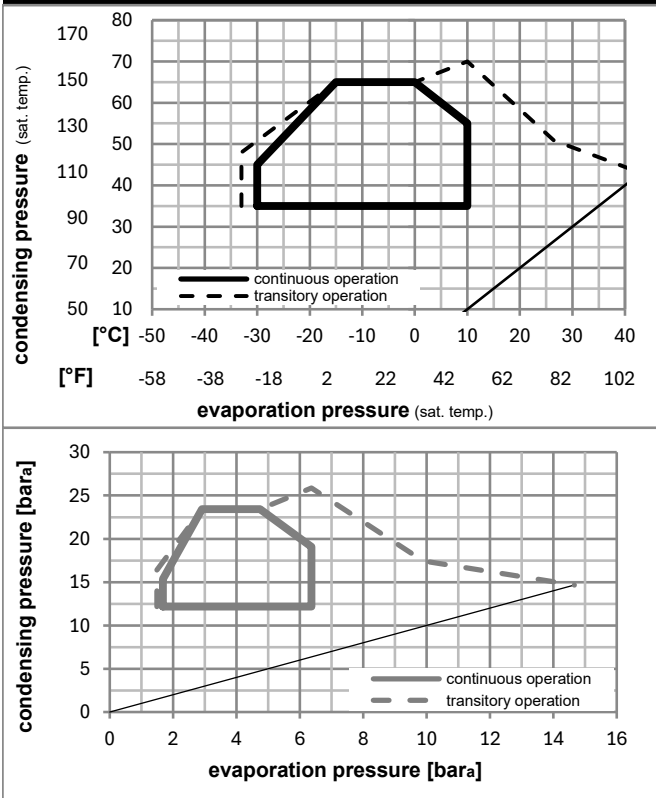
### Ambient/ machine room temperatures minimum /maximum

Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s

### Operation pressure range



### Components

a2	relay	117U7005
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 **NLE11MN** **220-240V/50Hz** Conf. 1 Sales code: **105H6177**

### Optimization + standard conditions

R290, 220V/50Hz, CSIR, fan 3m/s, CCC, EAC, VDE

		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	Current consumption					
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	Ref. mass flow					
[°C]	-7	54	35	46	981,8	3353	844,9	2,01	6,87	1,73	488,1	2,86	11,20	<b>ASHRAE MBP</b>						
[°F]	20	130	95	115																
[°C]	-10	55	32	55	781,6	2669	672,6	1,68	5,75	1,45	463,9	2,76	9,89	<b>cecomaf MBP</b>						
[°F]	14	131	90	131																
[°C]	-10	45	20	45	869,4	2969	748,2	2,06	7,03	1,77	422,5	2,63	10,67	<b>EN12900 MBP</b>						
[°F]	14	113	68	113																
[°C]	-7	49	18	49	922,9	3152	794,3	2,00	6,83	1,72	461,3	2,77	11,98	<b>ARI540 MBP</b>						
[°F]	20	120	65	120																
[°C]	-10	45	32	45	905,1	3091	778,9	2,14	7,32	1,84	422,5	2,63	10,35	<b>opt</b>						
[°F]	14	113	90	113																
[°C]	-25	45	32	45	489,3	1671	421,1	1,51	5,15	1,30	324,6	2,28	5,52	<b>opt</b>						
[°F]	-13	113	90	113																

### Performance tables

R290, 220V/50Hz, CSIR, fan 3m/s, CCC, EAC, 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]	-30	-22	390,2	1333	335,8	1,33	4,56	1,15	292,4	2,20	4,39
cond. pressure	-25	-13	489,3	1671	421,1	1,51	5,15	1,30	324,6	2,28	5,52
pc= 45/113	-15	5	745,7	2547	641,8	1,91	6,52	1,64	390,5	2,51	8,48
return gas temp.	-10	14	905,1	3091	778,9	2,14	7,32	1,84	422,5	2,63	10,35
RGT= 32/90	0	32	1291,2	4410	1111,2	2,69	9,19	2,32	479,9	2,85	14,98
liquid temp	5	41	1519,9	5191	1308,1	3,02	10,31	2,60	503,4	2,93	17,78
Tliq= 45/113	10	50	1773,7	6058	1526,5	3,40	11,60	2,92	522,2	2,98	20,96
[°C / °F]	-30	-22	339,5	1160	292,2	1,12	3,82	0,96	303,8	2,23	4,21
cond. pressure	-25	-13	423,0	1445	364,1	1,24	4,22	1,06	342,1	2,33	5,27
pc= 55/131	-15	5	643,1	2196	553,4	1,52	5,19	1,31	423,1	2,60	8,09
return gas temp	-10	14	781,6	2669	672,6	1,68	5,75	1,45	463,9	2,76	9,89
RGT= 32/90	0	32	1120,6	3827	964,4	2,07	7,07	1,78	541,4	3,08	14,39
liquid temp	5	41	1323,1	4519	1138,7	2,30	7,84	1,98	576,3	3,22	17,16
Tliq= 55/131	10	50	1549,0	5290	1333,1	2,55	8,71	2,20	607,3	3,34	20,31

## Model

Designation	<b>NLE11MN</b>	<b>220-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>105H6177</b>
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## Configuration

Motorconfiguration	RSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	MBP
Voltage range	198-254V
Starting torque	LST
Approvals	CCC
	EAC
	VDE

## Electrical accessories / wiring diagram

RSIR



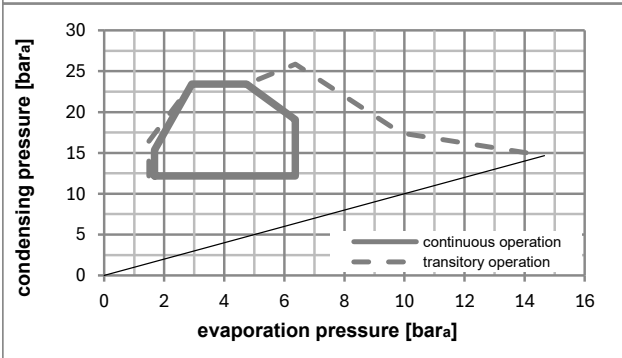
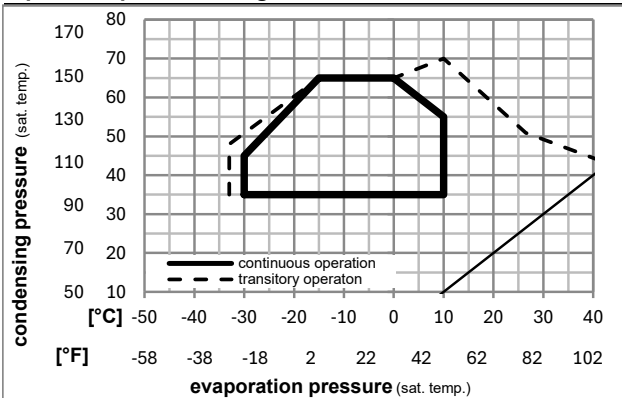
## Ambient/ machine room temperatures minimum /maximum

Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s

## Operation pressure range



## Components

a1	e-PTC starter (220V, 25Ohm, 4.8mm)	103N0050
b	plastic cover	103N2010
d	cord relief	103N1010

## Alternative components

b	plastic cover	103N2011
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### Model

Designation	<b>NLE11MN</b>	<b>220-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>105H6177</b>
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### Optimization + standard conditions

R290, 220V/50Hz, RSIR, fan 3m/s, CCC, EAC, VDE

		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]	[°F]																
-7	20	54	130	35	95	46	115	981,8	3353	844,9	2,01	6,87	1,73	488,1	2,86	11,20	<b>ASHRAE MBP</b>
-10	14	55	131	32	90	55	131	781,6	2669	672,6	1,68	5,75	1,45	463,9	2,76	9,89	<b>cecomaf MBP</b>
-10	14	45	113	20	68	45	113	869,4	2969	748,2	2,06	7,03	1,77	422,5	2,63	10,67	<b>EN12900 MBP</b>
-7	20	49	120	18	65	49	120	922,9	3152	794,3	2,00	6,83	1,72	461,3	2,77	11,98	<b>ARI540 MBP</b>
-10	14	45	113	32	90	45	113	905,1	3091	778,9	2,14	7,32	1,84	422,5	2,63	10,35	<b>opt</b>
-25	-13	45	113	32	90	45	113	489,3	1671	421,1	1,51	5,15	1,30	324,6	2,28	5,52	<b>opt</b>

### Performance tables

R290, 220V/50Hz, RSIR, fan 3m/s, CCC, EAC, 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]	-30	-22	390,2	1333	335,8	1,33	4,56	1,15	292,4	2,20	4,39	
cond. pressure	-25	-13	489,3	1671	421,1	1,51	5,15	1,30	324,6	2,28	5,52	
pc= 45/113	-15	5	745,7	2547	641,8	1,91	6,52	1,64	390,5	2,51	8,48	
return gas temp.	-10	14	905,1	3091	778,9	2,14	7,32	1,84	422,5	2,63	10,35	
RGT= 32/90	0	32	1291,2	4410	1111,2	2,69	9,19	2,32	479,9	2,85	14,98	
liquid temp	5	41	1519,9	5191	1308,1	3,02	10,31	2,60	503,4	2,93	17,78	
Tliq= 45/113	10	50	1773,7	6058	1526,5	3,40	11,60	2,92	522,2	2,98	20,96	
[°C / °F]	-30	-22	339,5	1160	292,2	1,12	3,82	0,96	303,8	2,23	4,21	
cond. pressure	-25	-13	423,0	1445	364,1	1,24	4,22	1,06	342,1	2,33	5,27	
pc= 55/131	-15	5	643,1	2196	553,4	1,52	5,19	1,31	423,1	2,60	8,09	
return gas temp	-10	14	781,6	2669	672,6	1,68	5,75	1,45	463,9	2,76	9,89	
RGT= 32/90	0	32	1120,6	3827	964,4	2,07	7,07	1,78	541,4	3,08	14,39	
liquid temp	5	41	1323,1	4519	1138,7	2,30	7,84	1,98	576,3	3,22	17,16	
Tliq= 55/131	10	50	1549,0	5290	1333,1	2,55	8,71	2,20	607,3	3,34	20,31	

## Model

Designation	<b>NLE11MN</b>	<b>220-240V/50Hz</b>	<b>Conf. 3</b>	Sales code:	<b>105H6177</b>
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## Configuration

Motorconfiguration	RSCR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	MBP
Voltage range	198-254V
Starting torque	LST
Approvals	CCC
	EAC
	VDE

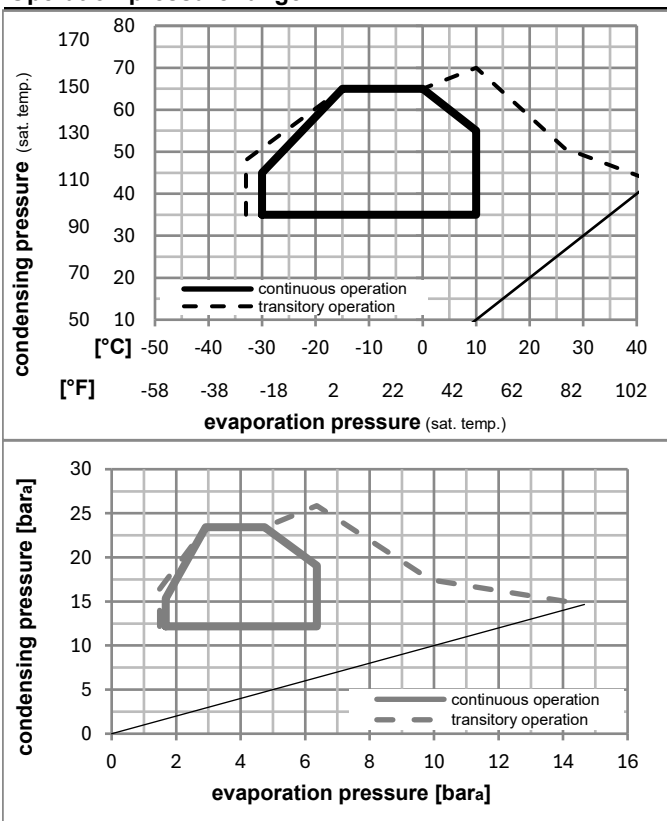
## Electrical accessories / wiring diagram



## Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

## Operation pressure range



## Components

a1	e-PTC starter (220V, 250Ω, 4.8mm)	103N0050
e	run capacitor (4μF, 4.8mm)	117-7119
b	plastic cover	103N2010
d	cord relief	103N1010
	bracket for run capacitor	117-0300
	screw M4x8mm	117-0301

## Alternative components

b	plastic cover	103N2011
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### Model

Designation	<b>NLE11MN</b>	<b>220-240V/50Hz</b>	<b>Conf. 3</b>	Sales code:	<b>105H6177</b>
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### Optimization + standard conditions

R290, 220V/50Hz, RSCR, fan 3m/s, CCC, EAC, VDE

		Evaporating pressure (saturation temperature)				Cooling capacity			COP	EER	Power consumption				
		Condensing pressure (saturation temperature)									Current consumption		Ref. mass flow		
		Return gas temp.													
		Liquid temp.													
		Cooling capacity													
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]							[W]	[A]	[kg/h]	
-7	20	54	130	35	95	986,3	3368	848,8	2,11	7,21	1,82	467,4	2,74	11,25	<b>ASHRAE MBP</b>
-10	14	55	131	32	90	784,8	2680	675,4	1,77	6,03	1,52	444,2	2,64	9,93	<b>cecomaf MBP</b>
-10	14	45	113	20	68	873,1	2982	751,4	2,16	7,37	1,86	404,7	2,52	10,72	<b>EN12900 MBP</b>
-7	20	49	120	18	65	927,2	3167	798,0	2,10	7,17	1,81	441,8	2,65	12,04	<b>ARI540 MBP</b>
-10	14	45	113	32	90	909,0	3104	782,3	2,25	7,67	1,93	404,7	2,52	10,40	<b>opt</b>
-25	-13	45	113	32	90	491,0	1677	422,5	1,58	5,41	1,36	309,9	2,18	5,54	<b>opt</b>

### Performance tables

R290, 220V/50Hz, RSCR, fan 3m/s, CCC, EAC, 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]	-30	-22	391,3	1336	336,7	1,40	4,79	1,21	278,9	2,10	4,40	
cond. pressure	-25	-13	491,0	1677	422,5	1,58	5,41	1,36	309,9	2,18	5,54	
pc= 45/113	-15	5	748,6	2556	644,2	2,00	6,84	1,72	373,8	2,40	8,52	
return gas temp.	-10	14	909,0	3104	782,3	2,25	7,67	1,93	404,7	2,52	10,40	
RGT= 32/90	0	32	1299,1	4437	1118,0	2,83	9,66	2,43	459,2	2,73	15,07	
liquid temp	5	41	1531,4	5230	1317,9	3,18	10,87	2,74	480,9	2,80	17,92	
Tliq= 45/113	10	50	1790,1	6113	1540,6	3,60	12,29	3,10	497,6	2,84	21,15	
[°C / °F]	-30	-22	340,6	1163	293,1	1,18	4,01	1,01	289,8	2,13	4,22	
cond. pressure	-25	-13	424,6	1450	365,4	1,30	4,44	1,12	326,8	2,22	5,29	
pc= 55/131	-15	5	645,5	2205	555,5	1,59	5,44	1,37	405,0	2,49	8,12	
return gas temp	-10	14	784,8	2680	675,4	1,77	6,03	1,52	444,2	2,64	9,93	
RGT= 32/90	0	32	1127,3	3850	970,2	2,18	7,43	1,87	518,0	2,94	14,48	
liquid temp	5	41	1333,0	4552	1147,2	2,42	8,27	2,08	550,5	3,07	17,28	
Tliq= 55/131	10	50	1563,3	5339	1345,4	2,70	9,23	2,32	578,7	3,18	20,50	

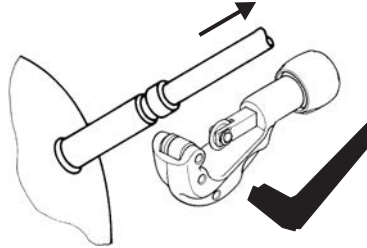


# NL Compressors





## 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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