

## Single Pack NLE11CNLT 208-230V 60Hz CSIR

Single pack code number: **195B4283**

Position	Title	Code	Amount
1	Compressor NLE11CNLT	105H6109	1
2	Starting relay	117U7005	1
3	Starting capacitor (60 $\mu$ F 220V, 6.3mm)	117U5014	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>NLE11CNLT</b>	208-230V/60Hz 1~	Sales code:	<b>105H6109</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	12,2kg / 26,9lbs		
Motor protection	1# internal		
Winding resistance main	5,06Ω (at 25°C)		
Winding resistance aux	13,02Ω (at 25°C)		
Max. winding temp.	135°C / 275°F		
Max. discharge temp.	130°C / 266°F		



## General - Configurations with NLE11CNLT

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>
Motorconfiguration	CSIR	RSIR	RSCR
Power supply (nominal)	208-230V/60Hz	208-230V/60Hz	208-230V/60Hz
Number of phases	1	1	1
Voltage range	187-253V	187-253V	187-253V
Approvals	UL, CB	UL, CB	UL, CB
Starting torque	HST	LST	LST
Note	- / -		

## Applications with NLE11CNLT

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>
Refrigerant	R290	R290	R290
Application	LBP	LBP	LBP
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 NLE11CNLT

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>
Starting device type	relay	PTC	PTC
Run capacitor	-/-	-/-	4μF
Start capacitor	60μF	-/-	-/-
LRA (locked rotor amps / 4s)	15,37A	15,12A	15,12A
RLA (rated load amps / 1s)	2,85A	2,44A	2,85A
Cut in current	15,37A	19,93A	19,93A

## Model

Designation

**NLE11CNLT**

208-230V/60Hz 1~

Sales code:

**105H6109**

## 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 6,41-6,59	øi 6,41-6,59
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,25-0,26	øi 0,25-0,26
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



### 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

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

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

### Model

Designation	<b>NLE11CNLT</b>	<b>208-230V/60Hz</b>	Conf. 1	Sales code:	<b>105H6109</b>
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### Configuration

Motorconfiguration	CSIR	
Power supply (nominal)	208-230V/60Hz 1~	
Refrigerant	R290	
Application	LBP	
Voltage range	187-253V	
Starting torque	HST	
Approvals	UL	SA3693
	CB	

### Electrical accessories / wiring diagram



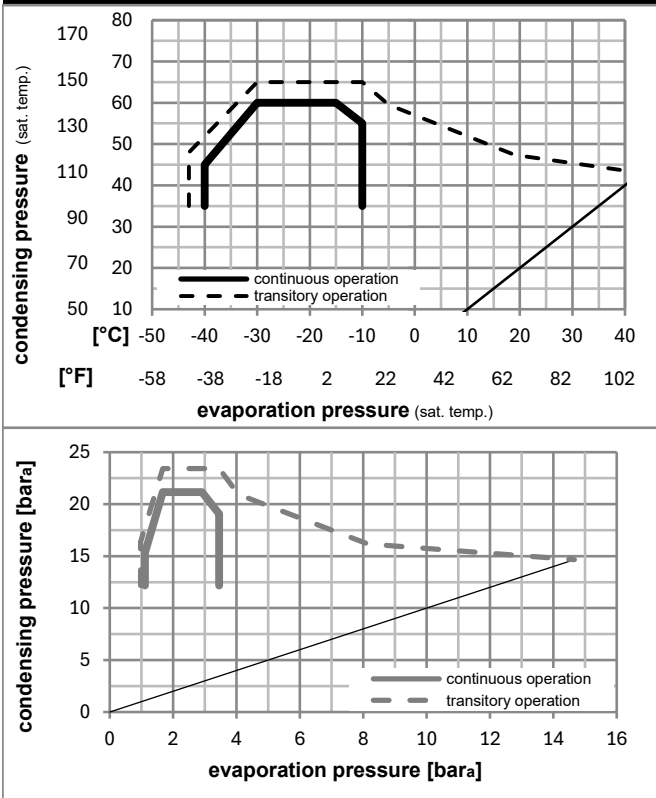
### Ambient/ machine room temperatures minimum /maximum

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 (60μF)	117U5014
b	plastic cover	103N2011
d	cord relief	103N1010

## Model

Designation **NLE11CNLT** **208-230V/60Hz** Conf. 1 Sales code: **105H6109**

## Optimization + standard conditions

R290, 220V/60Hz, CSIR, fan 3m/s, UL, CB

	pe	pc	RGT	Tliq	Cooling capacity [W]	[Btu/h]	[kcal/h]	COP [W/W]	EER [Btu/Wh]	[kcal/Wh]	P1 [W]	I [A]	Ref. mass flow ṁ [kg/h]	
Evaporating pressure (saturation temperature)	Condensing pressure (saturation temperature)	Return gas temp.	Liquid temp.									Current consumption		
[°C]	[°C]	[°C]	[°C]											
[°F]	[°F]	[°F]	[°F]											
-23	54	32	32	668,1	2282	575,0	1,65	5,64	1,42	404,8	2,31	6,77	<b>ASHRAE LBP</b>	
-10	130	90	90											
-25	55	32	55	499,4	1705	429,8	1,28	4,38	1,10	389,0	2,26	6,22	<b>cecomaf LBP</b>	
-13	131	90	131											
-35	40	20	40	382,5	1306	329,2	1,32	4,49	1,13	290,7	1,93	4,37	<b>EN12900 LBP</b>	
-31	104	68	104											
-23	49	4,4	49	544,8	1861	468,9	1,37	4,69	1,18	396,8	2,29	7,55	<b>ARI540 LBP</b>	
-10	120	40	120											
-23	41	32	32	729,7	2492	628,0	1,92	6,55	1,65	380,6	2,23	7,39	<b>AHAM LBP</b>	
-10	105	90	90											
-35	45	32	45	368,8	1259	317,3	1,25	4,28	1,08	294,4	1,94	4,13	<b>opt</b>	
-31	113	90	113											

## Performance tables

R290, 220V/60Hz, CSIR, fan 3m/s, UL, CB

	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]	-40	-40	322,8	1103	277,8	1,27	4,33	1,09	254,4	1,83	3,61
cond. pressure	-34	-30	376,8	1287	324,3	1,26	4,31	1,09	298,9	1,96	4,22
pc= 45/113	-29	-20	485,8	1659	418,1	1,41	4,82	1,22	344,0	2,11	5,46
return gas temp.	-23	-10	637,4	2177	548,5	1,64	5,58	1,41	389,8	2,27	7,20
RGT= 32/90	-21	-5	725,3	2477	624,2	1,76	6,00	1,51	413,1	2,35	8,21
liquid temp	-15	5	917,7	3134	789,7	1,99	6,81	1,72	460,1	2,53	10,44
Tliq= 45/113	-10	14	1101,1	3761	947,7	2,19	7,47	1,88	503,2	2,71	12,60
[°C / °F]	-40	-40	332,1	1134	285,8	1,33	4,55	1,15	249,2	1,80	4,10
cond. pressure	-34	-30	344,0	1175	296,0	1,15	3,93	0,99	299,2	1,95	4,25
pc= 55/131	-29	-20	417,7	1426	359,4	1,19	4,06	1,02	351,3	2,12	5,18
return gas temp	-23	-10	540,8	1847	465,4	1,33	4,55	1,15	405,5	2,32	6,74
RGT= 32/90	-21	-5	617,0	2107	531,0	1,42	4,86	1,22	433,5	2,42	7,71
liquid temp	-15	5	791,1	2702	680,8	1,61	5,50	1,39	491,1	2,65	9,95
Tliq= 55/131	-10	14	963,9	3292	829,6	1,77	6,04	1,52	544,9	2,87	12,19

## Model

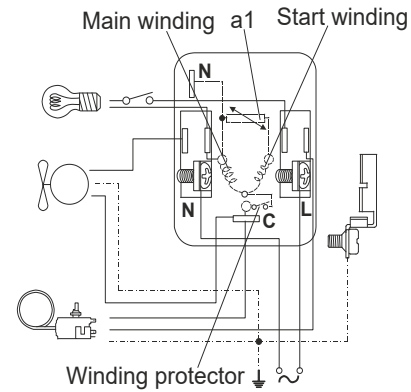
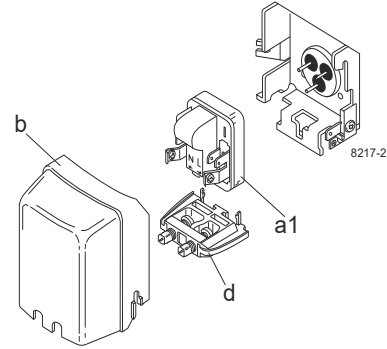
Designation	<b>NLE11CNLT</b>	<b>208-230V/60Hz</b>	<b>Conf. 2</b>	Sales code:	<b>105H6109</b>
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## Configuration

Motorconfiguration	RSIR	
Power supply (nominal)	208-230V/60Hz 1~	
Refrigerant	R290	
Application	LBP	
Voltage range	187-253V	
Starting torque	LST	
Approvals	UL	SA3693
	CB	

## Electrical accessories / wiring diagram

RSIR



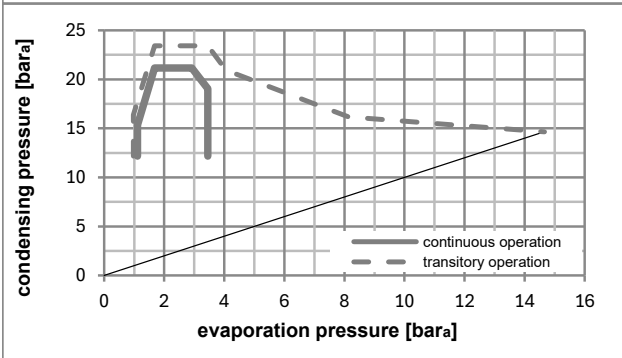
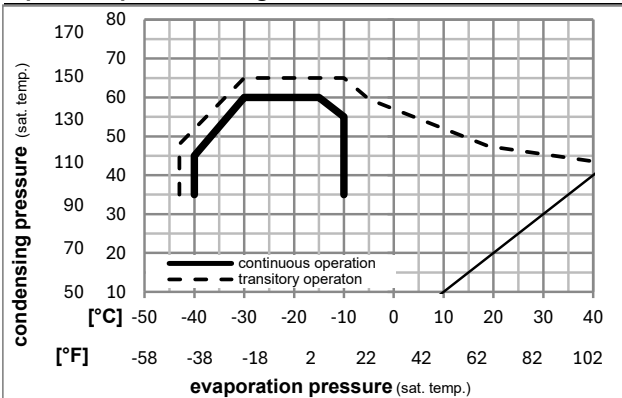
## Ambient/ machine room temperatures minimum /maximum

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, 250hm, 4.8mm)	103N0050
b	plastic cover	103N2011
d	cord relief	103N1010

### Model

Designation **NLE11CNLT** **208-230V/60Hz** Conf. 2 Sales code: **105H6109**

### Optimization + standard conditions

R290, 220V/60Hz, RSIR, fan 3m/s, UL, CB

	pe	pc	RGT	Tliq	Cooling capacity	COP	EER	P1	I	Ref. mass flow	
	[°C]	[°C]	[°C]	[°C]	[W]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
ASHRAE LBP	-23	54	32	32	668,1	1,65	5,64	404,8	2,31	6,77	
	[-10]	[130]	[90]	[90]							
cecomaf LBP	-25	55	32	55	499,4	1,28	4,38	389,0	2,26	6,22	
	[-13]	[131]	[90]	[131]							
EN12900 LBP	-35	40	20	40	382,5	1,32	4,49	290,7	1,93	4,37	
	[-31]	[104]	[68]	[104]							
ARI540 LBP	-23	49	4,4	49	544,8	1,37	4,69	396,8	2,29	7,55	
	[-10]	[120]	[40]	[120]							
AHAM LBP	-23	41	32	32	729,7	1,92	6,55	380,6	2,23	7,39	
	[-10]	[105]	[90]	[90]							
opt	-35	45	32	45	368,8	1,25	4,28	294,4	1,94	4,13	
	[-31]	[113]	[90]	[113]							

### Performance tables

R290, 220V/60Hz, RSIR, fan 3m/s, UL, CB

	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]	-40	-40	322,8	1103	277,8	1,27	4,33	1,09	254,4	1,83	3,61
cond. pressure	-34	-30	376,8	1287	324,3	1,26	4,31	1,09	298,9	1,96	4,22
pc= 45/113	-29	-20	485,8	1659	418,1	1,41	4,82	1,22	344,0	2,11	5,46
return gas temp.	-23	-10	637,4	2177	548,5	1,64	5,58	1,41	389,8	2,27	7,20
RGT= 32/90	-21	-5	725,3	2477	624,2	1,76	6,00	1,51	413,1	2,35	8,21
liquid temp	-15	5	917,7	3134	789,7	1,99	6,81	1,72	460,1	2,53	10,44
Tliq= 45/113	-10	14	1101,1	3761	947,7	2,19	7,47	1,88	503,2	2,71	12,60
[°C / °F]	-40	-40	332,1	1134	285,8	1,33	4,55	1,15	249,2	1,80	4,10
cond. pressure	-34	-30	344,0	1175	296,0	1,15	3,93	0,99	299,2	1,95	4,25
pc= 55/131	-29	-20	417,7	1426	359,4	1,19	4,06	1,02	351,3	2,12	5,18
return gas temp	-23	-10	540,8	1847	465,4	1,33	4,55	1,15	405,5	2,32	6,74
RGT= 32/90	-21	-5	617,0	2107	531,0	1,42	4,86	1,22	433,5	2,42	7,71
liquid temp	-15	5	791,1	2702	680,8	1,61	5,50	1,39	491,1	2,65	9,95
Tliq= 55/131	-10	14	963,9	3292	829,6	1,77	6,04	1,52	544,9	2,87	12,19

## Model

Designation	<b>NLE11CNLT</b>	<b>208-230V/60Hz</b>	<b>Conf. 3</b>	Sales code:	<b>105H6109</b>
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## Configuration

Motorconfiguration	RSCR	
Power supply (nominal)	208-230V/60Hz 1~	
Refrigerant	R290	
Application	LBP	
Voltage range	187-253V	
Starting torque	LST	
Approvals	UL	SA3693
	CB	

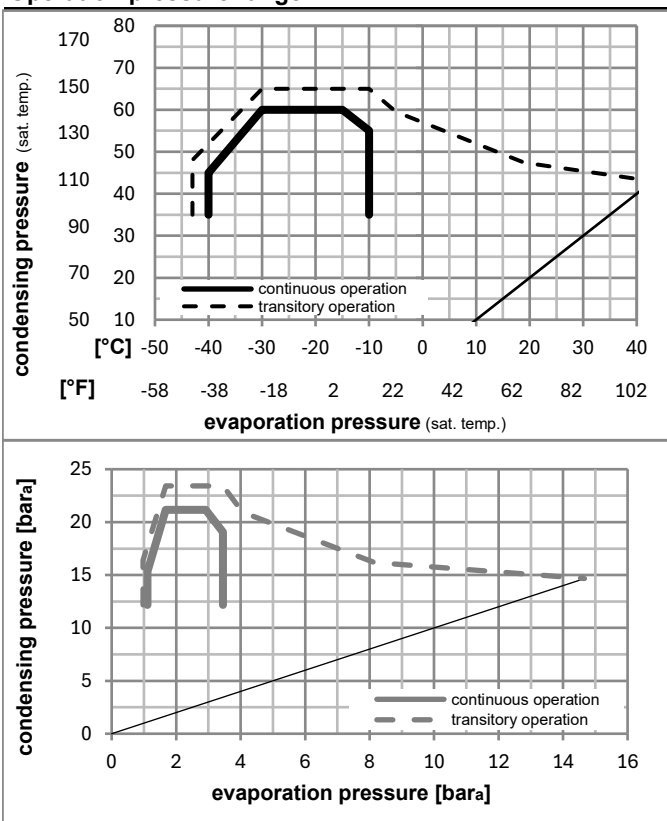
## Electrical accessories / wiring diagram



## 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, 250hm, 4.8mm)	103N0050
e	run capacitor (4μF, 4.8mm)	117-7165
b	plastic cover	103N2011
d	cord relief	103N1010
	bracket for run capacitor	117-0300
	screw M4x8mm	117-0301



## Model

Designation **NLE11CNLT** **208-230V/60Hz** Conf. 3 Sales code: **105H6109**

## Optimization + standard conditions

R290, 220V/60Hz, RSCR, fan 3m/s, UL, CB

	pe	pc	RGT	Tliq	Cooling capacity	COP	EER	P1	I	Ref. mass flow	
	[°C]	[°C]	[°C]	[°C]	[W]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
ASHRAE LBP	-23	54	32	32	673,5	1,76	6,02	381,8	1,86	6,82	
	[°F]	[°F]	[°F]	[°F]	[Btu/h]	[kcal/h]	[kcal/Wh]				
cecomaf LBP	-25	55	32	55	503,1	1,37	4,68	367,3	1,80	6,26	
	[°F]	[°F]	[°F]	[°F]	[W]	[W/W]	[kcal/Wh]				
EN12900 LBP	-35	40	20	40	383,2	1,39	4,76	274,7	1,44	4,38	
	[°F]	[°F]	[°F]	[°F]	[W]	[W/W]	[kcal/Wh]				
ARI540 LBP	-23	49	4,4	49	548,2	1,46	5,00	374,3	1,83	7,59	
	[°F]	[°F]	[°F]	[°F]	[W]	[W/W]	[kcal/Wh]				
AHAM LBP	-23	41	32	32	730,1	2,04	6,95	358,6	1,77	7,39	
	[°F]	[°F]	[°F]	[°F]	[W]	[W/W]	[kcal/Wh]				
opt	-35	45	32	45	374,0	1,34	4,58	279,2	1,46	4,19	
	[°F]	[°F]	[°F]	[°F]	[W]	[W/W]	[kcal/Wh]				

## Performance tables

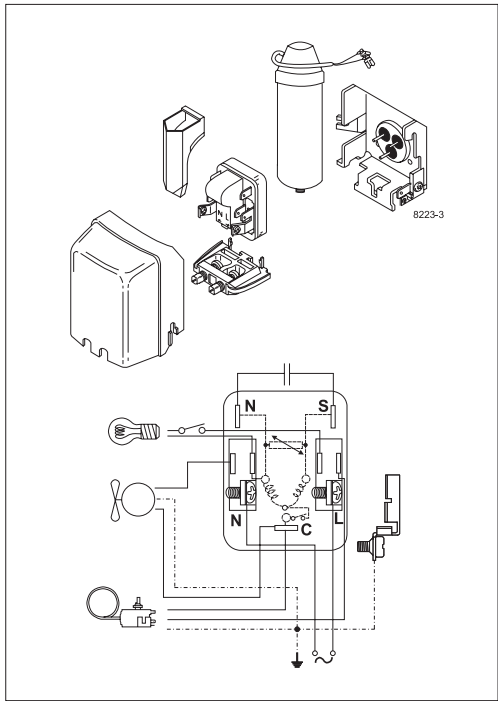
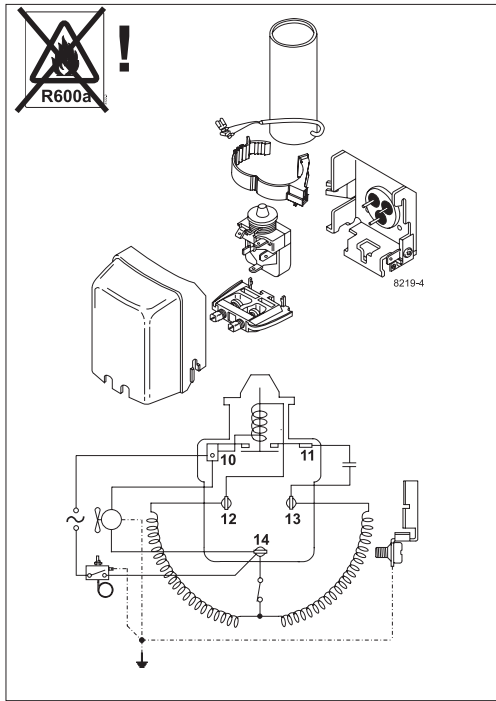
R290, 220V/60Hz, RSCR, fan 3m/s, UL, CB

	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]	-40	-40	338,7	1157	291,5	1,39	4,75	1,20	243,6	1,33	3,79
cond. pressure	-34	-30	381,4	1302	328,2	1,35	4,60	1,16	283,2	1,47	4,27
pc= 45/113	-29	-20	486,8	1662	418,9	1,50	5,12	1,29	324,6	1,63	5,47
return gas temp.	-23	-10	639,8	2185	550,6	1,74	5,95	1,50	367,4	1,80	7,22
RGT= 32/90	-21	-5	729,4	2491	627,8	1,87	6,40	1,61	389,2	1,89	8,26
liquid temp	-15	5	925,6	3161	796,6	2,13	7,29	1,84	433,7	2,08	10,53
Tliq= 45/113	-10	14	1110,9	3794	956,1	2,34	8,00	2,02	474,5	2,26	12,71
[°C / °F]	-40	-40	353,7	1208	304,4	1,46	4,98	1,26	242,4	1,33	4,36
cond. pressure	-34	-30	352,6	1204	303,4	1,23	4,21	1,06	286,1	1,49	4,36
pc= 55/131	-29	-20	421,4	1439	362,7	1,27	4,32	1,09	332,9	1,67	5,23
return gas temp	-23	-10	545,1	1862	469,1	1,43	4,87	1,23	382,4	1,86	6,80
RGT= 32/90	-21	-5	622,8	2127	536,0	1,53	5,21	1,31	408,1	1,97	7,79
liquid temp	-15	5	800,5	2734	688,9	1,74	5,93	1,49	461,3	2,20	10,06
Tliq= 55/131	-10	14	975,5	3331	839,5	1,91	6,52	1,64	511,0	2,42	12,34



8238-20

# 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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