

## Single Pack NLE12.6CNS 115-127V 60Hz CSIR

Single pack code number: **195B4610**

Position	Title	Code	Amount
1	Compressor NLE12.6CNS	105H6392	1
2	Cord relief	103N1010	1
3	Cover	103N2011	1
4	Starting capacitor (180 $\mu$ F 125V, 6.3mm)	117U5039	1
5	Starting relay	117U7023	1
6	Bolt joint for one compressor   M6   $\varnothing$ 16mm	118-1917	1

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## Model

Designation	<b>NLE12.6CNS</b>	115-127V/60Hz 1~	Sales code:	<b>105H6392</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R290</b>
Oil viscosity	32cST	Displacement	12,55cm <sup>3</sup> / 0,77cu.in
Oil quantity	298cm <sup>3</sup> / 10,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	300g / 10,6oz		
Free gas volume comp.	2360cm <sup>3</sup> / 79,8fl.oz		
Weight	11,7kg / 25,8lbs		
Motor protection	1# internal		
Winding resistance main	1Ω (at 25°C)		
Winding resistance aux	3,3Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



## General - Configurations with NLE12.6CNS

	<b>Conf. 1</b>	<b>Conf. 2</b>
Motorconfiguration	CSIR	RSCR
Power supply (nominal)	115V/60Hz	115V/60Hz
Number of phases	1	1
Voltage range	103-135V	103-135V
Approvals	UL	UL
Starting torque	HST	LST
Note	Important: compressor is optimized for strong power supply and oversized heat exchangers.	

## Applications with NLE12.6CNS

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

## Electrical data - Configurations with NLE12.6CNS

	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	relay	PTC
Run capacitor	-/-	23,5μF
Start capacitor	180μF	-/-
LRA (locked rotor amps / 4s)	31A	
RLA (rated load amps / 1s)	6,4A	6,4A
Cut in current	31A	43,8A

## Model

Designation

**NLE12.6CNS**

115-127V/60Hz 1~

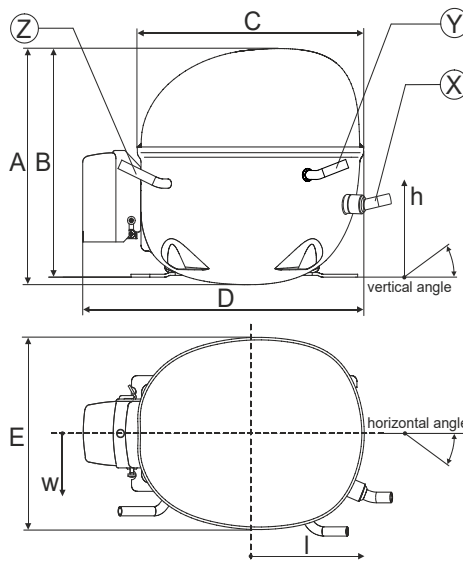
Sales code:

**105H6392**

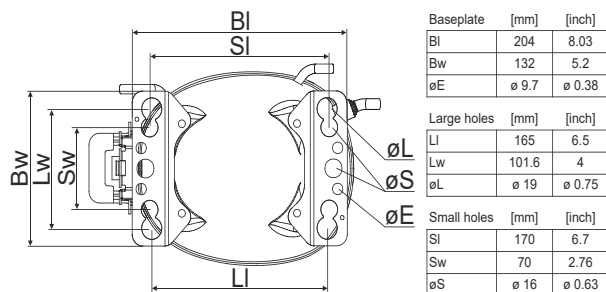
## Compressor dimensions

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

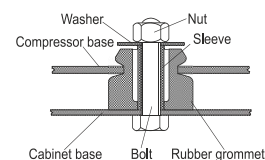
Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,41-6,59	øi 6,41-6,59
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,25-0,26	øi 0,25-0,26
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	15°	21°	155°
Position l/h/w	[mm]	132/69/57	94/102/81	-109/94/72
	[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



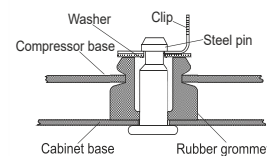
## Compressor fixation



### 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

Important: compressor is optimized for strong power supply and oversized heat exchangers.

Tailor made for supermarket applications.

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

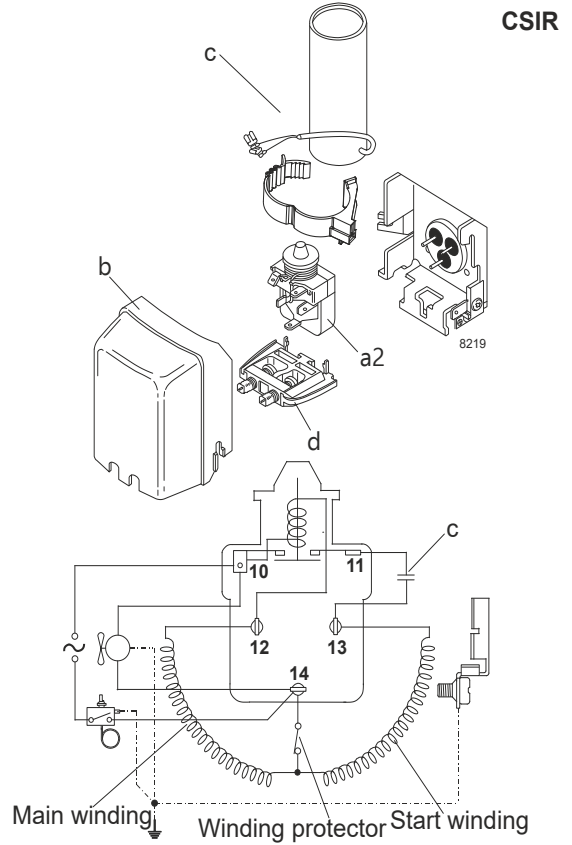
### Model

Designation	<b>NLE12.6CNS</b>	<b>115V/60Hz</b>	<b>Conf. 1</b>	Sales code:	<b>105H6392</b>
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### Configuration

Motorconfiguration	CSIR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	103-135V
Starting torque	HST
Approvals	UL

### Electrical accessories / wiring diagram



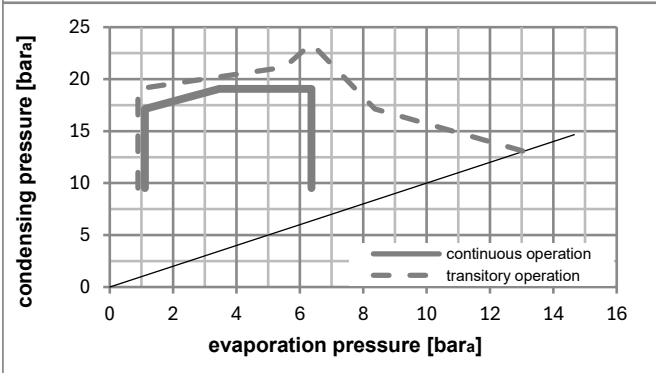
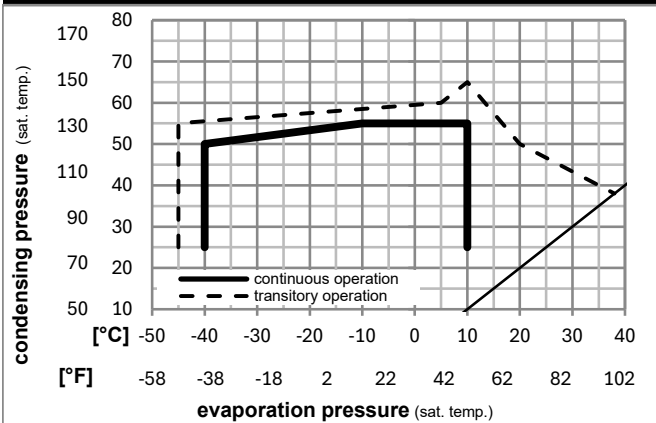
### Ambient/ machine room temperatures minimum /maximum

Ambient temperature range: 10 - 38°C / 50 - 101°F

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

Compressor cooling: fan 3m/s

### Operation pressure range



### Components

a2	current relay	117U7023
c	start capacitor (180µF)	117U5039
b	plastic cover	103N2011
d	cord relief	103N1010

### Model

Designation	<b>NLE12.6CNS</b>	<b>115V/60Hz</b>	<b>Conf. 1</b>	Sales code:	<b>105H6392</b>
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### Optimization + standard conditions

R290, 115V/60Hz, CSIR, fan 3m/s, UL

	Evaporating pressure (saturation temperature)				Cooling capacity			COP	EER	P1	Power consumption		ASHRAE LBP	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]				I	m		
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23	54	32	32	748,4	2556	644,1	1,60	5,47	1,38	467,3	5,35	7,58	ASHRAE LBP
	-10	130	90	90										
	-25	55	32	55	555,6	1897	478,1	1,25	4,26	1,07	445,6	5,17	6,92	cecomaf LBP
	-13	131	90	131										
	-35	40	20	40	418,5	1429	360,1	1,32	4,51	1,14	317,0	4,10	4,78	EN12900 LBP
	-31	104	68	104										
	-7	54	35	46	1340,0	4576	1153,2	1,98	6,76	1,70	676,5	7,09	15,29	ASHRAE MBP
	20	130	95	115										
	-10	55	32	55	1070,9	3657	921,6	1,68	5,72	1,44	639,1	6,78	13,55	cecomaf MBP
	14	131	90	131										
	-10	45	20	45	1180,6	4032	1016,0	2,00	6,83	1,72	590,7	6,37	14,50	EN12900 MBP
	14	113	68	113										

### Performance tables

R290, 115V/60Hz, CSIR, fan 3m/s, UL

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]		[Btu/Wh]	[kcal/Wh]			
[°C / °F]	-40	-40	278,1	950	239,3	1,09	3,71	0,94	255,8	3,59	3,11
cond. pressure	-34	-30	403,3	1377	347,1	1,25	4,27	1,08	322,5	4,15	4,52
pc= 45/113	-23	-10	718,1	2453	618,0	1,59	5,44	1,37	450,6	5,21	8,11
return gas temp.	-15	5	1018,8	3479	876,8	1,89	6,44	1,62	540,3	5,96	11,59
RGT= 32/90	-4	25	1519,0	5188	1307,2	2,34	8,00	2,02	648,4	6,85	17,52
liquid temp	0	32	1723,5	5886	1483,3	2,52	8,62	2,17	682,6	7,14	19,99
Tliq= 45/113	10	50	2326,6	7946	2002,3	3,06	10,45	2,63	760,3	7,78	27,49
[°C / °F]	-40	-40	183,2	626	157,7	0,77	2,63	0,66	237,9	3,45	2,26
cond. pressure	-34	-30	307,0	1049	264,2	0,97	3,32	0,84	315,9	4,09	3,80
pc= 55/131	-23	-10	605,0	2066	520,7	1,29	4,42	1,11	467,9	5,35	7,54
return gas temp	-15	5	880,7	3008	758,0	1,53	5,22	1,31	576,7	6,26	11,07
RGT= 32/90	-4	25	1331,1	4546	1145,5	1,87	6,39	1,61	711,9	7,38	16,99
liquid temp	0	32	1513,7	5170	1302,7	2,00	6,84	1,72	756,0	7,75	19,44
Tliq= 55/131	10	50	2050,0	7001	1764,3	2,38	8,14	2,05	860,0	8,61	26,88

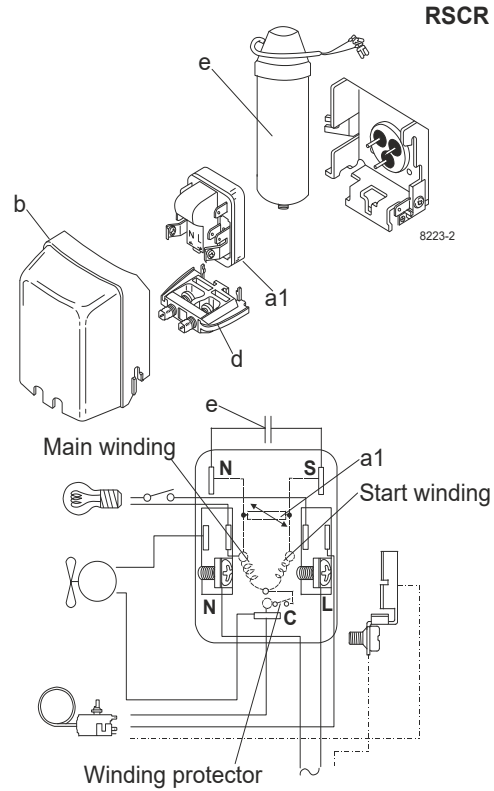
### Model

Designation	<b>NLE12.6CNS</b>	<b>115V/60Hz</b>	<b>Conf. 2</b>	Sales code:	<b>105H6392</b>
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### Configuration

Motorconfiguration	RSCR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	103-135V
Starting torque	LST
Approvals	UL

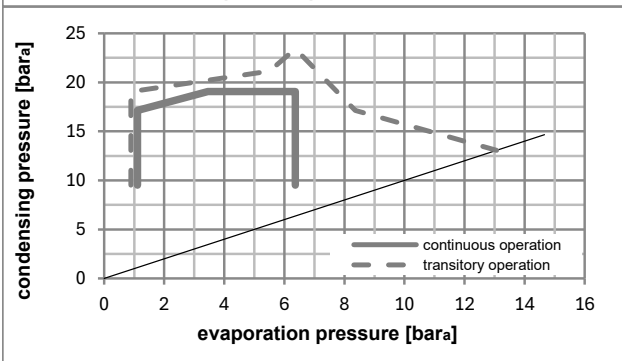
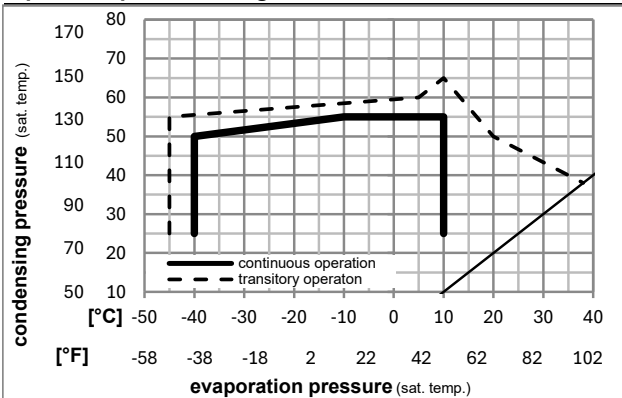
### Electrical accessories / wiring diagram



### 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:	fan 3m/s

### Operation pressure range



### Components

a1	e-PTC starter	103N0058
e	run capacitor (23,5µF, 6.3mm)	117-7114
b	plastic cover	103N2011
d	cord relief	103N1010
	bracket for run capacitor	117-0300
	screw M4x8mm	117-0301

## Model

Designation **NLE12.6CNS 115V/60Hz** Conf. 2 Sales code: **105H6392**

## Optimization + standard conditions

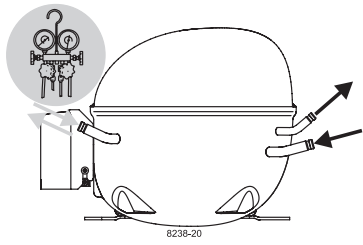
R290, 115V/60Hz, RSCR, fan 3m/s, UL

	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	750,4	1,70	5,81	440,9	3,97	7,60	
	[°F]				[Btu/h]		[kcal/Wh]				
cecomaf LBP	-25	55	32	55	557,0	1,32	4,52	421,1	3,81	6,94	
	[°F]				[kcal/h]		[kcal/Wh]				
EN12900 LBP	-35	40	20	40	419,0	1,38	4,72	302,9	3,11	4,79	
	[°F]										
ASHRAE MBP	-7	54	35	46	1346,5	2,14	7,31	629,3	5,59	15,36	
	[°F]										
cecomaf MBP	-10	55	32	55	1075,5	1,80	6,16	596,0	5,30	13,60	
	[°F]										
EN12900 MBP	-10	45	20	45	1185,0	2,14	7,32	552,7	4,96	14,55	
	[°F]										

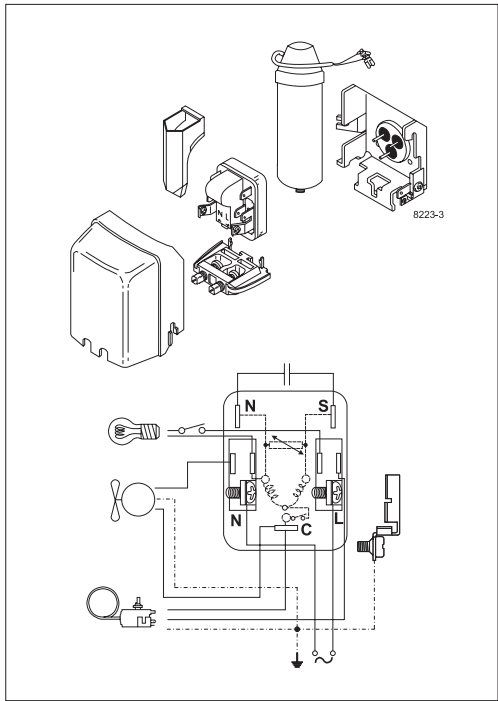
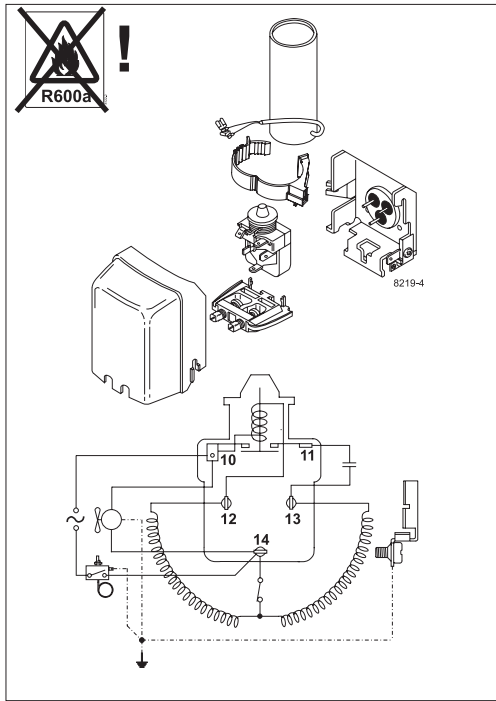
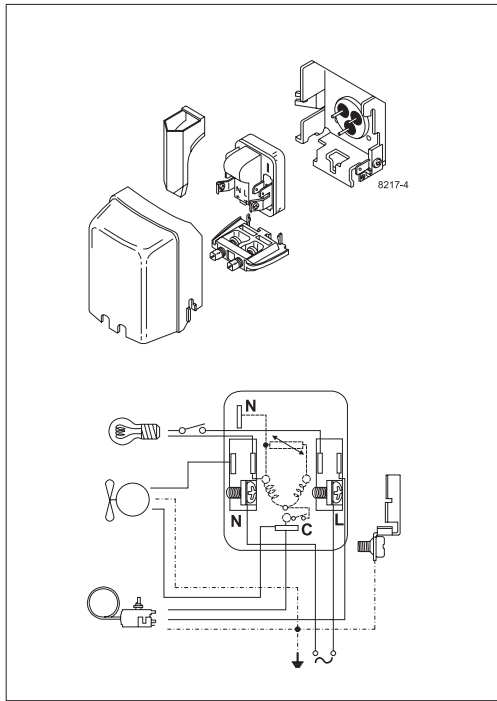
## Performance tables

R290, 115V/60Hz, RSCR, fan 3m/s, UL

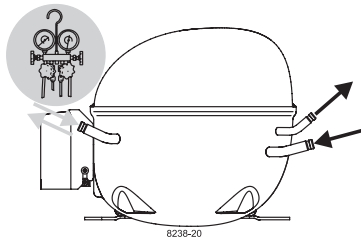
	pe	Cooling capacity			COP	EER	P1	I	m		
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-40	-40	278,1	950	239,3	1,13	3,87	0,97	245,5	2,64	3,11
cond. pressure	-34	-30	403,9	1379	347,6	1,31	4,48	1,13	307,9	3,06	4,53
pc= 45/113	-23	-10	720,0	2459	619,6	1,69	5,77	1,45	425,9	3,93	8,13
return gas temp.	-15	5	1022,1	3491	879,7	2,01	6,88	1,73	507,3	4,58	11,63
RGT= 32/90	-4	25	1525,8	5211	1313,1	2,52	8,62	2,17	604,4	5,41	17,59
liquid temp	0	32	1732,1	5915	1490,7	2,73	9,32	2,35	634,9	5,68	20,09
Tliq= 45/113	10	50	2341,8	7998	2015,4	3,32	11,36	2,86	704,3	6,31	27,67
[°C / °F]	-40	-40	183,4	626	157,8	0,80	2,74	0,69	228,5	2,38	2,26
cond. pressure	-34	-30	307,6	1050	264,7	1,02	3,48	0,88	301,5	2,90	3,80
pc= 55/131	-23	-10	606,6	2072	522,1	1,37	4,69	1,18	441,5	3,98	7,56
return gas temp	-15	5	883,9	3019	760,7	1,64	5,59	1,41	540,0	4,80	11,11
RGT= 32/90	-4	25	1338,2	4570	1151,7	2,03	6,92	1,74	660,8	5,89	17,08
liquid temp	0	32	1523,0	5201	1310,7	2,18	7,43	1,87	699,9	6,25	19,56
Tliq= 55/131	10	50	2066,7	7058	1778,7	2,61	8,91	2,25	791,7	7,14	27,10



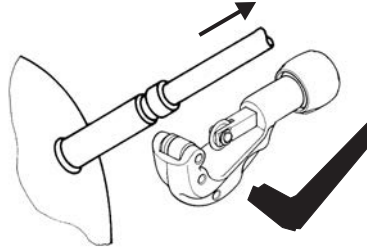
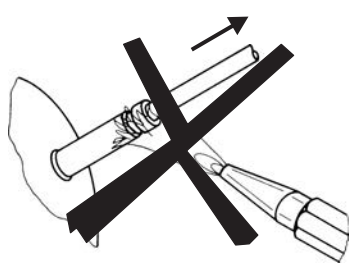
# NL Compressors







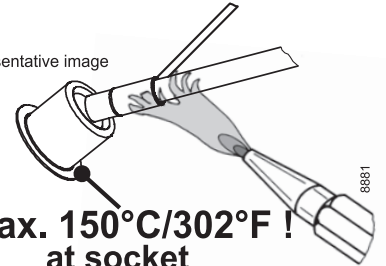
## Service/Repair – R600a, R290



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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