Single
Packs

Single Pack NL8.4FT 220-240V 50Hz CSIR

Single pack code number: **195B4486**

Position	Title	Code	Amount
1	Compressor NL8.4FT	105G6865	1
2	Starting relay	117U6001	1
3	Starting capacitor (80µF 220V, 6.3mm)	117U5015	1
4	Cord relief	103N1010	1
5	Cover	103N2010	1
6	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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Model

Designation	**NL8.4FT**	**220-240V/50Hz 1~**	Sales code:	**105G6865**

Compressor design

Oil type	Polyolester	Refrigerant(s)	**R134a**
Oil viscosity	32cST	Displacement	8,35cm³ / 0,51cu.in
Oil quantity	268cm³ / 9,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2360cm³ / 79,8fl.oz		
Weight	9,6kg / 21,2lbs		
Motor protection	1# internal		
Winding resistance main	10,6Ω (at 25°C)		
Winding resistance aux	18,1Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		

General - Configurations with NL8.4FT

	Conf. 1	**Conf. 2**
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 NL8.4FT

	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 NL8.4FT

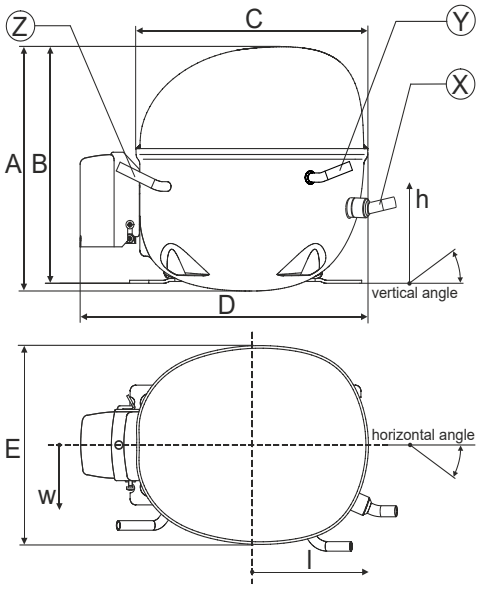
	Conf. 1	**Conf. 2**
Starting device type	relay	PTC
Run capacitor	-/-	-/-
Start capacitor	80µF	-/-
LRA (locked rotor amps / 4s)	9,4A	7,5A
RLA (rated load amps / 1s)	1,4A	1,4A
Cut in current	11,6A	11,6A

Model

Designation **NL8.4FT** **220-240V/50Hz 1~** Sales code: **105G6865**

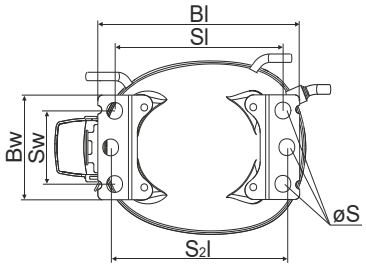
Compressor dimensions

Housing		
	A Height	189,5mm / 7,46in
	B Height	183,5mm / 7,22in
	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 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

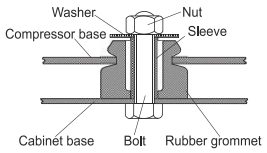
Compressor fixation



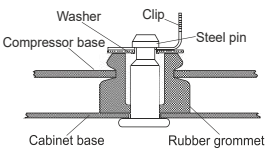
Baseplate	[mm]	[inch]
Bl	204	8.03
Bw	100	3.94

Small holes	[mm]	[inch]
Sl	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	
Bolt joint | ø1/4" | ø19mm	118-1949	
Snap-on | ø7,3 | ø16mm	118-1947	118-1919

Model

Designation				
	NL8.4FT	**220-240V/50Hz**	**Conf. 1**	Sales code: **105G6865**

Configuration

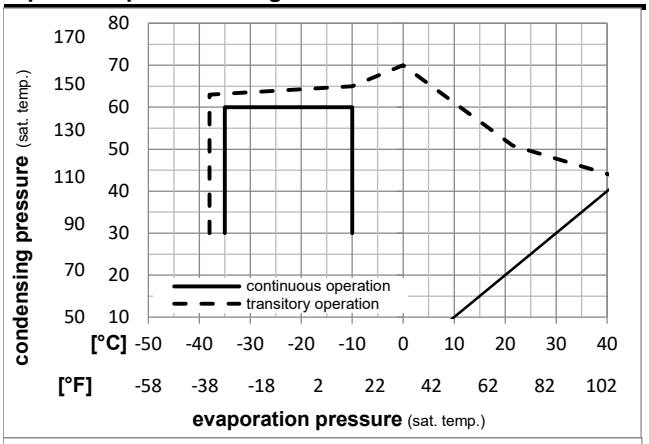
Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE
	CCC
	EAC

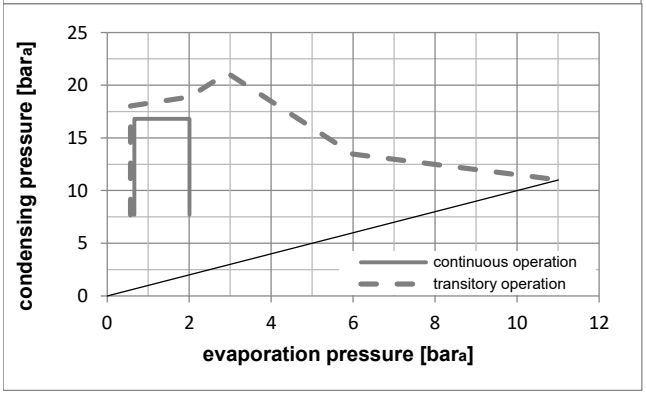
Ambient temperatures / system cooling

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	static	n/a	n/a
38°C / 100°F	fan 1,5m/s	n/a	n/a
43°C / 110°F	fan 1,5m/s	n/a	n/a

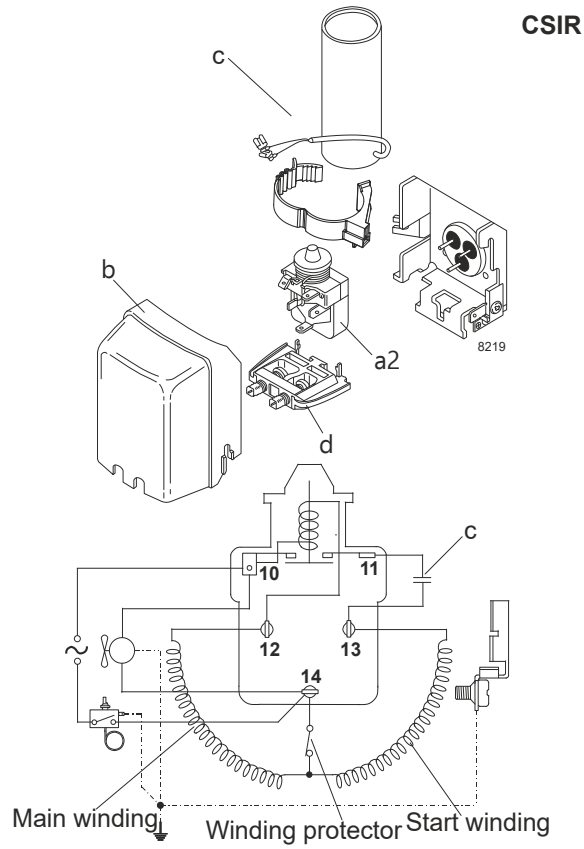
Operation pressure range





Electrical accessories / wiring diagram

CSIR



Components

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

Alternative components

b	plastic cover	103N2011

Model

Designation **NL8.4FT** **220-240V/50Hz** **Conf. 1** Sales code: **105G6865**

Optimization + standard conditions R134a, 220V/50Hz, CSIR, fan 1,5m/s, VDE, CCC, EAC

	Evaporating pressure (saturation temperature) pe	Condensing pressure (saturation temperature) pc	Return gas temp. RGT	Liquid temp. Tliq	Cooling capacity [W]	Cooling capacity [Btu/h]	Cooling capacity [kcal/h]	COP [W/W]	EER [Btu/Wh]	EER [kcal/Wh]	Power consumption P1 [W]	Current consumption I [A]	Ref. mass flow ṁ [kg/h]	
[°C]	-23,3	54,4	32,2	32,2	219,1	748	188,6	1,23	4,21	1,06	177,9	1,30	4,25	**ASHRAE LBP**
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	161,6	552	139,0	0,95	3,26	0,82	169,5	1,28	3,86	**cecomaf LBP**
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	114,5	391	98,6	0,91	3,10	0,78	126,1	1,18	2,51	**EN12900 LBP**
[°F]	-31	104	68	104										
[°C]	-23,3	48,9	4,44	48,9	180,3	616	155,1	1,02	3,48	0,88	176,9	1,30	4,76	**ARI540 LBP**
[°F]	-10	120	40	120										
[°C]	-23,3	40,6	32,2	32,2	245,5	839	211,3	1,43	4,88	1,23	171,7	1,29	4,77	**AHAM LBP**
[°F]	-10	105	90	90										
[°C]	-35	45	32	45	107,4	367	92,5	0,84	2,88	0,73	127,4	1,19	2,32	**opt**
[°F]	-31	113	89,6	113										

Performance tables R134a, 220V/50Hz, CSIR, fan 1,5m/s, VDE, CCC, EAC

	pe [°C]	pe [°F]	Cooling capacity [W]	Cooling capacity [Btu/h]	Cooling capacity [kcal/h]	COP [W/W]	EER [Btu/Wh]	EER [kcal/Wh]	P1 [W]	I [A]	m [kg/h]
[°C / °F]	-35	-31	107,4	367	92,5	0,84	2,88	0,73	127,4	1,19	2,32
cond. pressure	-30	-22	145,8	498	125,4	1,00	3,41	0,86	146,0	1,23	3,15
pc= 45/113	-25	-13	193,8	662	166,8	1,16	3,96	1,00	167,2	1,28	4,20
return gas temp.	-23,3	-10	212,6	726	183,0	1,22	4,15	1,05	174,8	1,30	4,61
RGT= 32/90	-20	-4	252,9	864	217,6	1,33	4,54	1,14	190,2	1,35	5,49
liquid temp	-15	5	324,2	1107	279,0	1,51	5,17	1,30	214,3	1,42	7,07
Tliq= 45/113	-10	14	409,1	1397	352,1	1,71	5,85	1,47	238,8	1,51	8,95
[°C / °F]	-35	-31	86,9	297	74,8	0,69	2,34	0,59	126,8	1,18	2,07
cond. pressure	-30	-22	120,0	410	103,3	0,82	2,80	0,71	146,4	1,22	2,86
pc= 55/131	-25	-13	161,6	552	139,0	0,95	3,26	0,82	169,5	1,28	3,86
return gas temp	-23,3	-10	177,9	607	153,1	1,00	3,41	0,86	177,9	1,30	4,26
RGT= 32/90	-20	-4	212,9	727	183,2	1,09	3,73	0,94	195,2	1,36	5,11
liquid temp	-15	5	275,3	940	236,9	1,24	4,22	1,06	222,8	1,45	6,63
Tliq= 55/131	-10	14	349,9	1195	301,1	1,39	4,75	1,20	251,6	1,55	8,46

Model

Designation				
	NL8.4FT	**220-240V/50Hz**	**Conf. 2**	Sales code: **105G6865**

Configuration

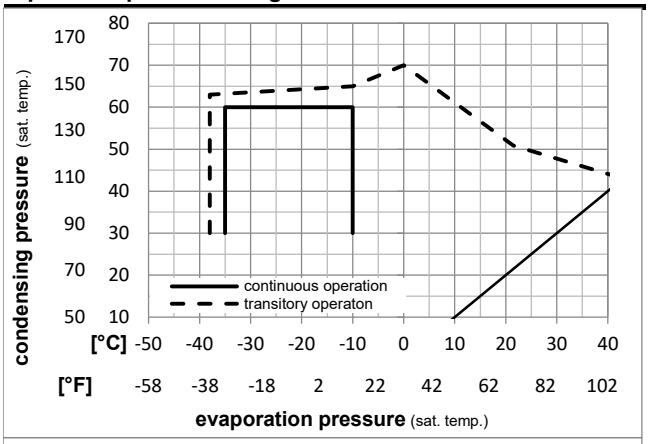
Motorconfiguration	RSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	187-254V
Starting torque	LST
Approvals	VDE
	CCC
	EAC

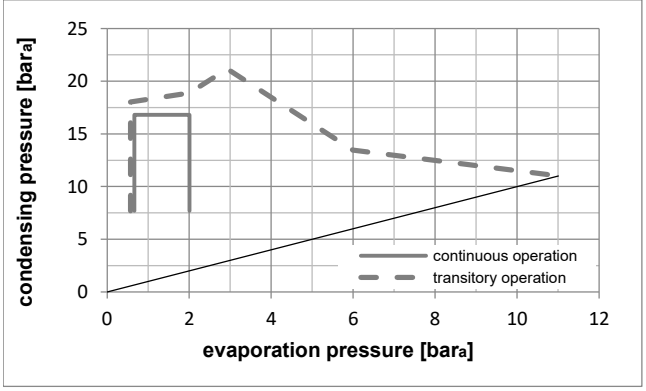
Ambient temperatures / system cooling

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	static	n/a	n/a
38°C / 100°F	fan 1,5m/s	n/a	n/a
43°C / 110°F	fan 1,5m/s	n/a	n/a

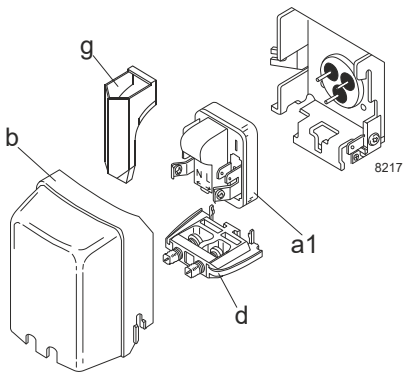
Operation pressure range

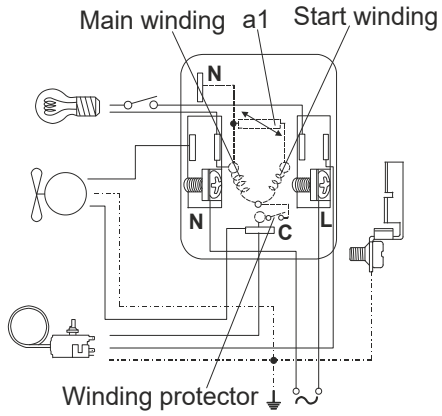




Electrical accessories / wiring diagram

RSIR





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

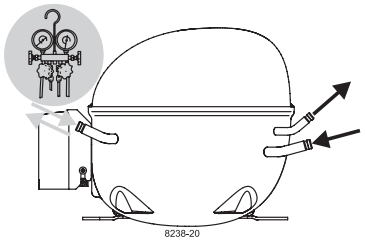
Designation **NL8.4FT** **220-240V/50Hz** **Conf. 2** Sales code: **105G6865**

Optimization + standard conditions R134a, 220V/50Hz, RSIR, fan 1,5m/s, VDE, CCC, EAC

	Evaporating pressure (saturation temperature) pe	Condensing pressure (saturation temperature) pc	Return gas temp. RGT	Liquid temp. Tliq	Cooling capacity [W]	Cooling capacity [Btu/h]	Cooling capacity [kcal/h]	COP [W/W]	EER [Btu/Wh]	EER [kcal/Wh]	Power consumption P1 [W]	Current consumption I [A]	Ref. mass flow ṁ [kg/h]	
[°C]	-23	54,4	32,2	32,2	219,1	748	188,6	1,23	4,21	1,06	177,9	1,30	4,25	**ASHRAE LBP**
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	161,6	552	139,0	0,95	3,26	0,82	169,5	1,28	3,86	**cecomaf LBP**
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	114,5	391	98,6	0,91	3,10	0,78	126,1	1,18	2,51	**EN12900 LBP**
[°F]	-31	104	68	104										
[°C]	-23	48,9	4,44	48,9	180,3	616	155,1	1,02	3,48	0,88	176,9	1,30	4,76	**ARI540 LBP**
[°F]	-10	120	40	120										
[°C]	-23	40,6	32,2	32,2	245,5	839	211,3	1,43	4,88	1,23	171,7	1,29	4,77	**AHAM LBP**
[°F]	-10	105	90	90										
[°C]	-35	45	32	45	107,4	367	92,5	0,84	2,88	0,73	127,4	1,19	2,32	**opt**
[°F]	-31	113	89,6	113										

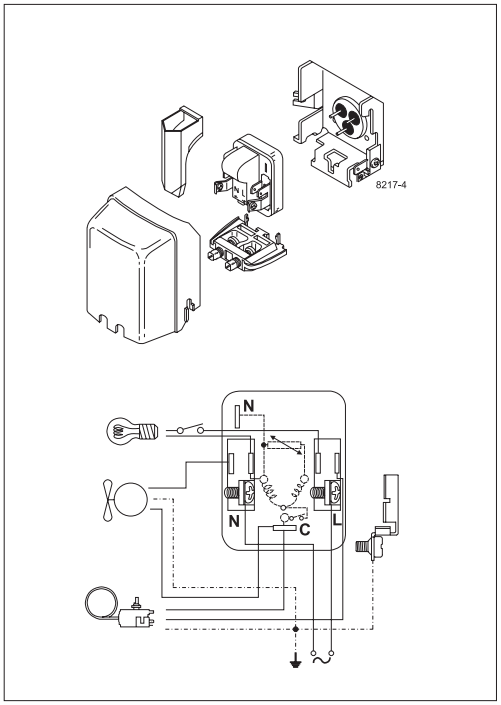
Performance tables R134a, 220V/50Hz, RSIR, fan 1,5m/s, VDE, CCC, EAC

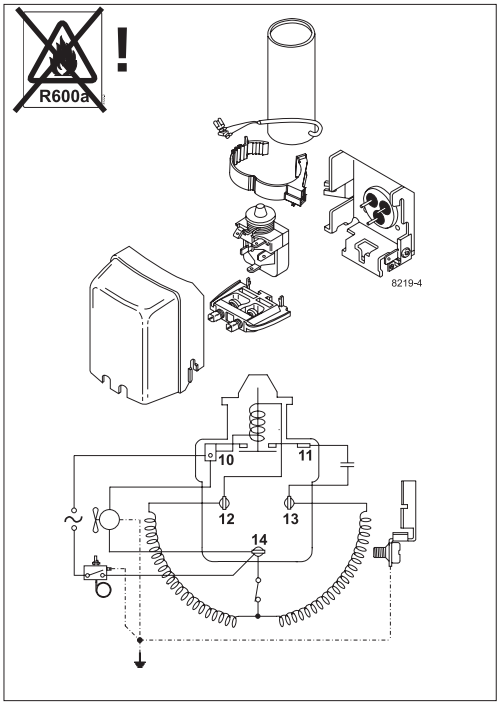
	pe [°C]	pe [°F]	Cooling capacity [W]	Cooling capacity [Btu/h]	Cooling capacity [kcal/h]	COP [W/W]	EER [Btu/Wh]	EER [kcal/Wh]	P1 [W]	I [A]	m [kg/h]
[°C / °F]	-35	-31	107,4	367	92,5	0,84	2,88	0,73	127,4	1,19	2,32
cond. pressure	-30	-22	145,8	498	125,4	1,00	3,41	0,86	146,0	1,23	3,15
pc= 45/113	-25	-13	193,8	662	166,8	1,16	3,96	1,00	167,2	1,28	4,20
return gas temp.	-23	-10	212,6	726	183,0	1,22	4,15	1,05	174,8	1,30	4,61
RGT= 32/90	-20	-4	252,9	864	217,6	1,33	4,54	1,14	190,2	1,35	5,49
liquid temp	-15	5	324,2	1107	279,0	1,51	5,17	1,30	214,3	1,42	7,07
Tliq= 45/113	-10	14	409,1	1397	352,1	1,71	5,85	1,47	238,8	1,51	8,95
[°C / °F]	-35	-31	86,9	297	74,8	0,69	2,34	0,59	126,8	1,18	2,07
cond. pressure	-30	-22	120,0	410	103,3	0,82	2,80	0,71	146,4	1,22	2,86
pc= 55/131	-25	-13	161,6	552	139,0	0,95	3,26	0,82	169,5	1,28	3,86
return gas temp	-23	-10	177,9	607	153,1	1,00	3,41	0,86	177,9	1,30	4,26
RGT= 32/90	-20	-4	212,9	727	183,2	1,09	3,73	0,94	195,2	1,36	5,11
liquid temp	-15	5	275,3	940	236,9	1,24	4,22	1,06	222,8	1,45	6,63
Tliq= 55/131	-10	14	349,9	1195	301,1	1,39	4,75	1,20	251,6	1,55	8,46

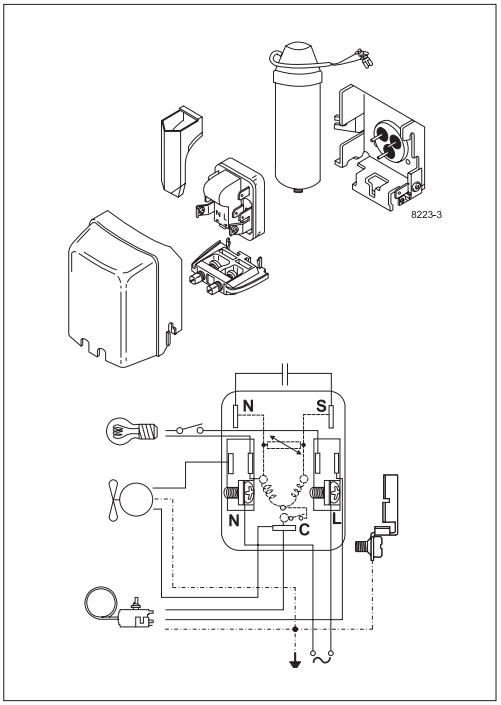


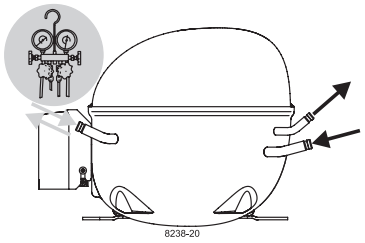
NL Compressors

SECOP





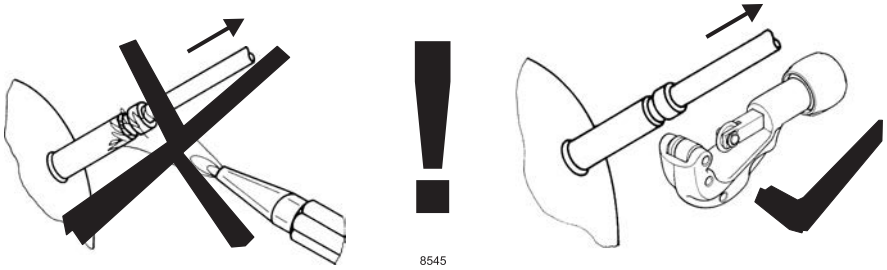




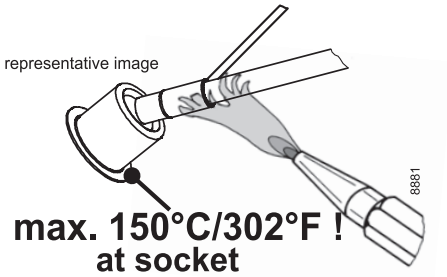
NL Compressors

SECOP

Service/Repair – R600a, R290



Brazing on Suction Connectors (Direct Intake)



! 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)