

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 (80 μ 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	NL8.4FT	220-240V/50Hz 1~	Sales code:	105G6865
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	32cST	Displacement	8,35cm ³ / 0,51cu.in
Oil quantity	268cm ³ / 9,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2360cm ³ / 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

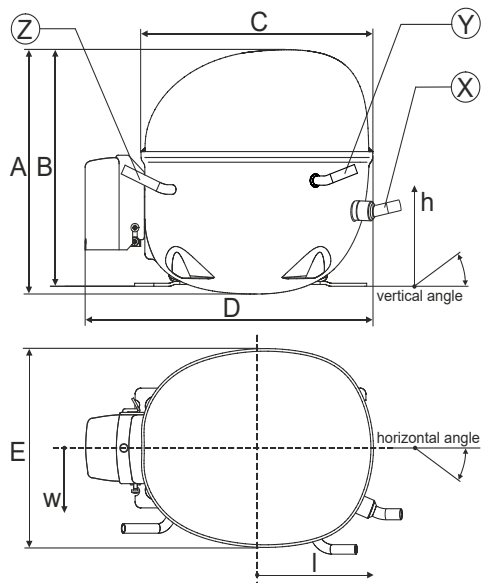
Model

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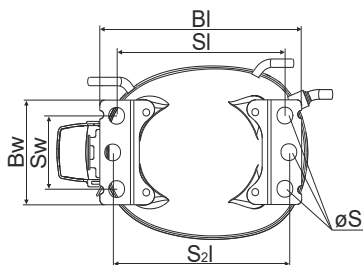
Compressor dimensions

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



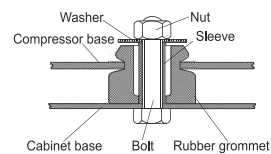
Compressor fixation



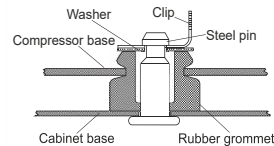
Baseplate	[mm]	[inch]
Bi	204	8.03
Bw	100	3.94

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

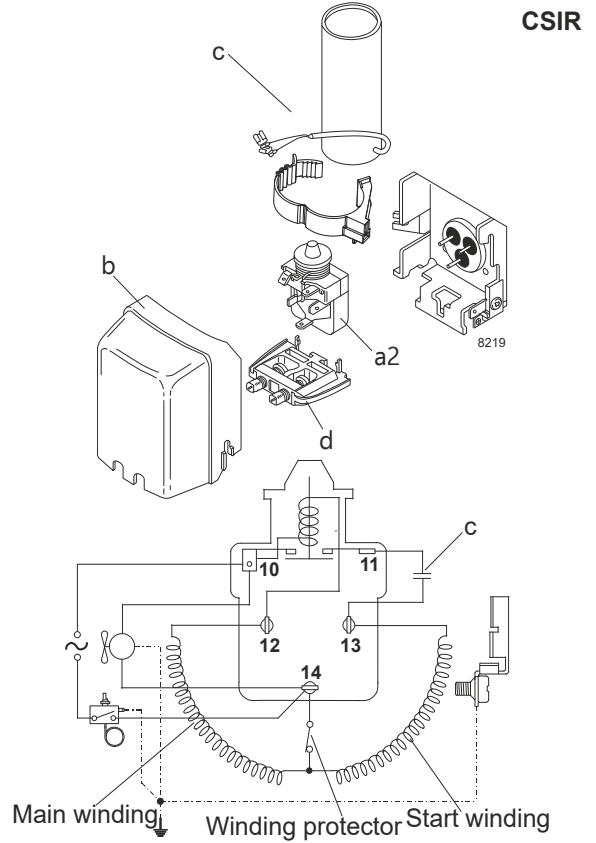
Model

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

Electrical accessories / wiring diagram

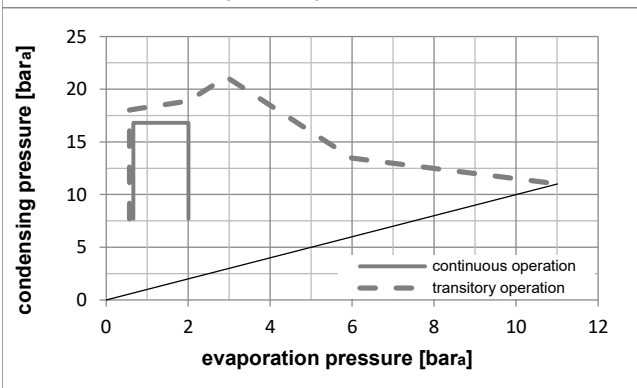
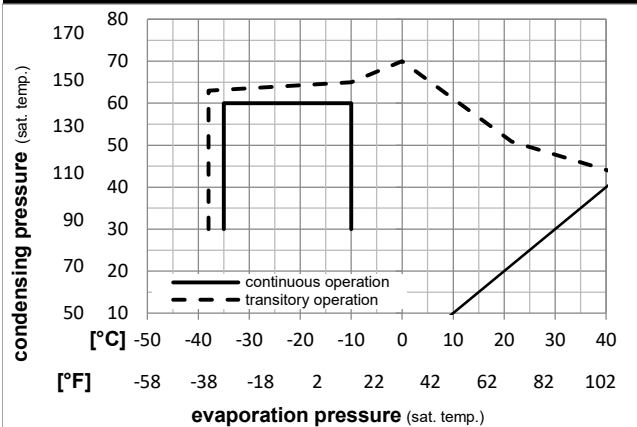


Ambient temperatures / system cooling

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	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



Components

a2	current relay	117U6001
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 **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)		Condensing pressure (saturation temperature)				Cooling capacity			COP	EER	Power consumption			ASHRAE LBP
		Return gas temp.		Liquid temp.						Current consumption		Ref. mass flow		
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m		
[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]		
-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											
-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											
-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											
-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											
-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											
-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

[°C / °F]	pe	Cooling capacity			COP	EER	P1		I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]
-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	1,00	3,41	0,86	146,0	1,23	3,15
pc= 45/113	-25	-13	193,8	662	1,16	3,96	1,00	167,2	1,28	4,20
return gas temp.	-23,3	-10	212,6	726	1,22	4,15	1,05	174,8	1,30	4,61
RGT= 32/90	-20	-4	252,9	864	1,33	4,54	1,14	190,2	1,35	5,49
liquid temp	-15	5	324,2	1107	1,51	5,17	1,30	214,3	1,42	7,07
Tliq= 45/113	-10	14	409,1	1397	1,71	5,85	1,47	238,8	1,51	8,95
-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	0,82	2,80	0,71	146,4	1,22	2,86
pc= 55/131	-25	-13	161,6	552	0,95	3,26	0,82	169,5	1,28	3,86
return gas temp	-23,3	-10	177,9	607	1,00	3,41	0,86	177,9	1,30	4,26
RGT= 32/90	-20	-4	212,9	727	1,09	3,73	0,94	195,2	1,36	5,11
liquid temp	-15	5	275,3	940	1,24	4,22	1,06	222,8	1,45	6,63
Tliq= 55/131	-10	14	349,9	1195	1,39	4,75	1,20	251,6	1,55	8,46

Model

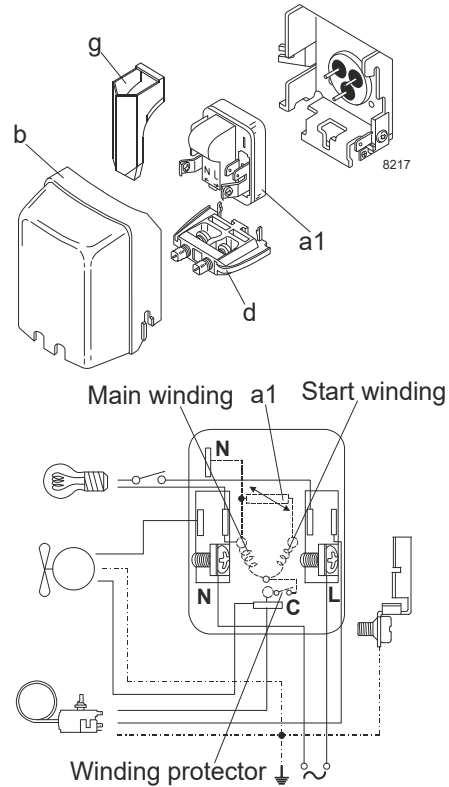
Designation	NL8.4FT	220-240V/50Hz	Conf. 2	Sales code:	105G6865
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Configuration

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

Electrical accessories / wiring diagram

RSIR

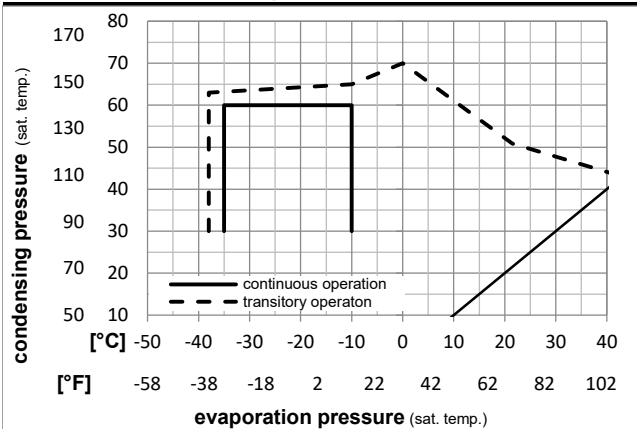


Ambient temperatures / system cooling

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	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



Components

a1	PTC starter (220V, 250hm, 4.8mm)	103N0018
b	plastic cover	103N2010
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	NL8.4FT	220-240V/50Hz	Conf. 2	Sales code:	105G6865
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Optimization + standard conditions

R134a, 220V/50Hz, RSIR, fan 1,5m/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]	-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											

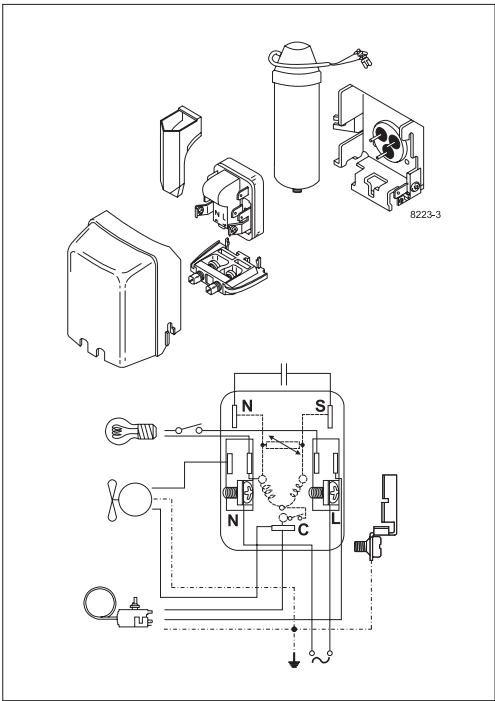
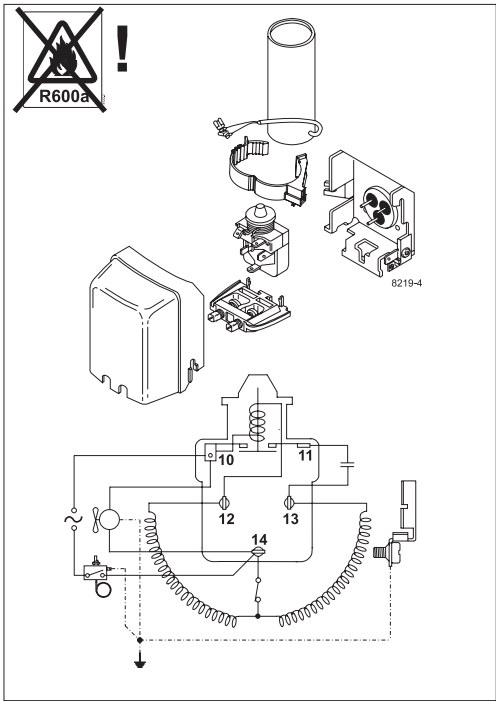
Performance tables

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

	pe		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]	-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





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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