

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

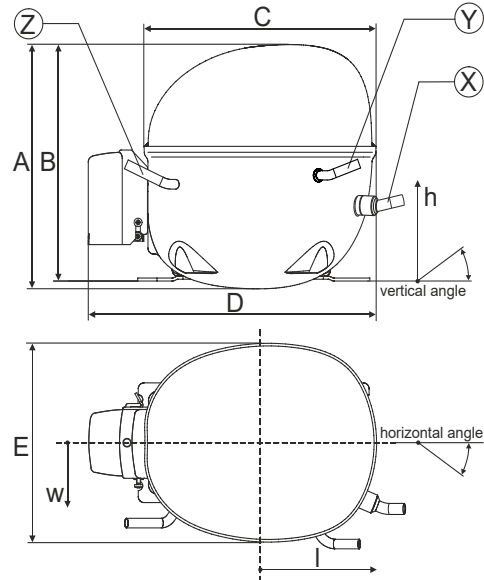
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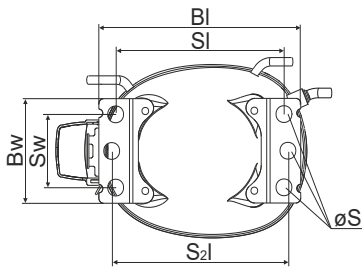
Compressor dimensions

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

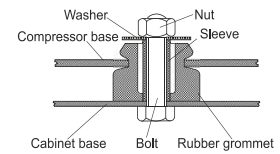


Compressor fixation

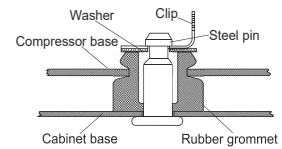


Baseplate	[mm]	[inch]
BI	204	8.03
BW	100	3.94
Small holes	[mm]	[inch]
SI	170	6.7
SW	70	2.76
S2l	178	7
øS	ø 16	ø 0.63

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

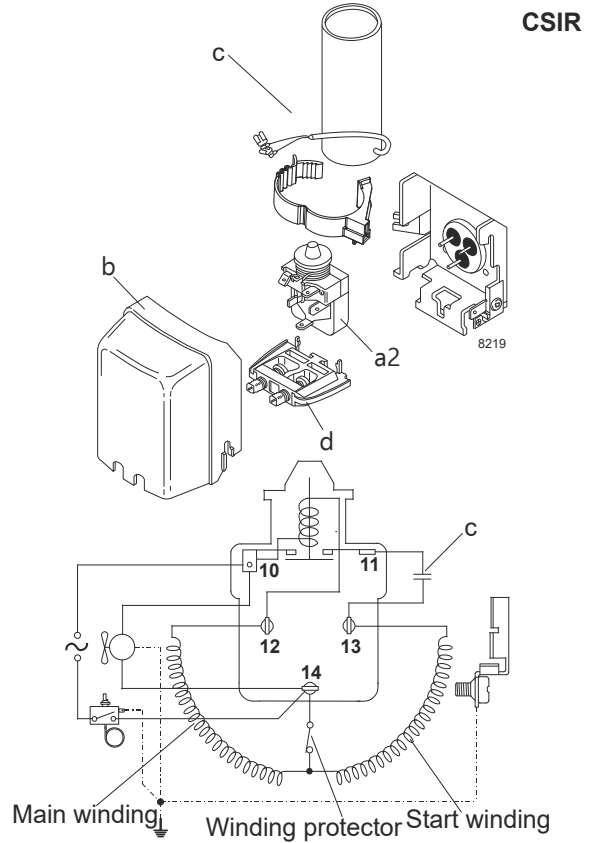
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Configuration

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

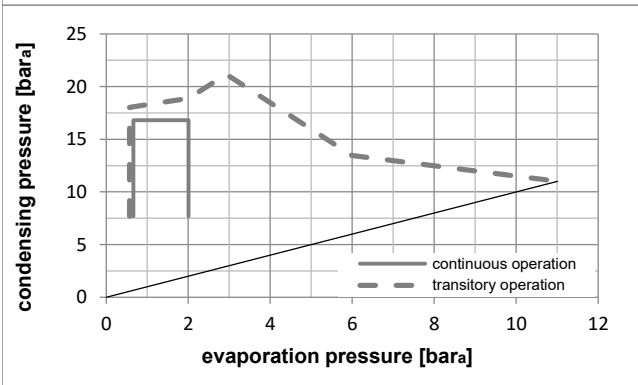
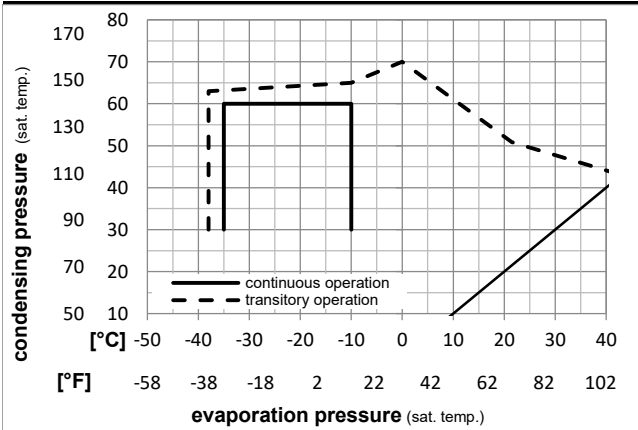


Ambient temperatures / system cooling

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

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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		Current consumption		Ref. mass flow m	ASHRAE LBP
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	[A]	[kg/h]		
[°C]	[°C]									[W]	[A]				
-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]	[kg/h]
	-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
	-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

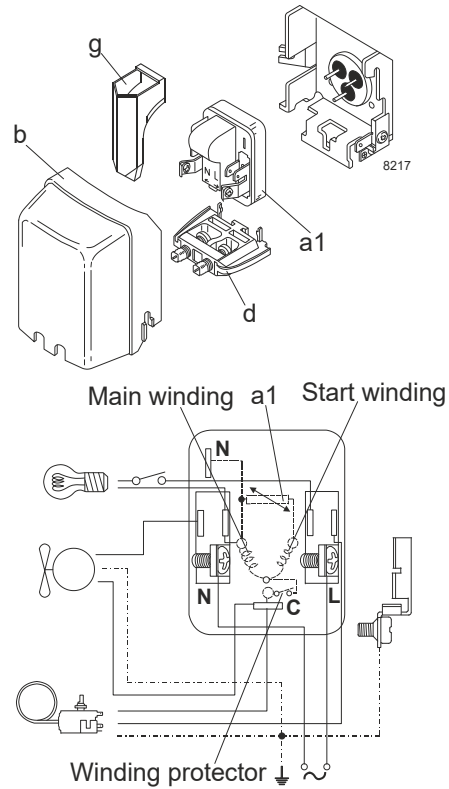
Designation	NL8.4FT	220-240V/50Hz	Conf. 2	Sales code:	105G6865
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Configuration

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

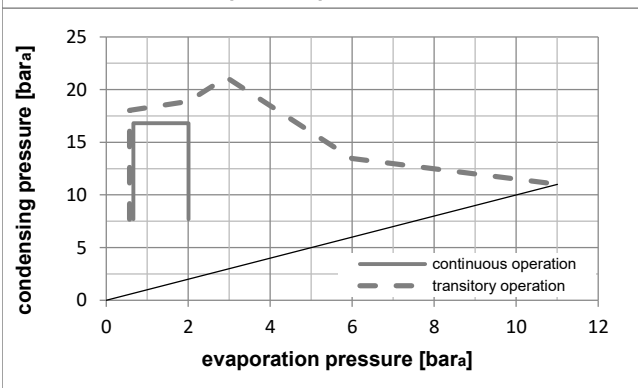
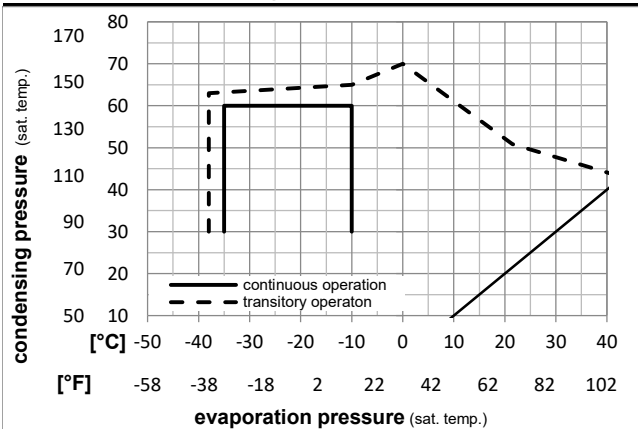


Ambient temperatures / system cooling

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				ASHRAE LBP
					Return gas temp.			Liquid temp.			Current consumption			Ref. mass flow m	
											P1	I			
pe	pc	RGT	Tliq		[W]	[Btu/h]	[kcal/h]	COP	EER		[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		
[°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			