

Model

Designation	NL7CLX	220-240V/50Hz 1~	Sales code:	105F3713
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R404A, R507
Oil viscosity	32cSt	Displacement	7,27cm ³ / 0,44cu.in
Oil quantity	298cm ³ / 10,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2310cm ³ / 78,1fl.oz		
Weight	10,4kg / 22,9lbs		
Motor protection	1# internal		
Winding resistance main	8,6Ω (at 25°C)		
Winding resistance aux	14,7Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with NL7CLX

	Conf. 1	Conf. 2
Motor configuration	CSIR	RSIR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1
Voltage range	198-254V	198-254V
Approvals	VDE, UL, CCC, EAC	VDE, UL, CCC, EAC
Starting torque	HST	LST
Note	- / -	

Applications with NL7CLX

	Conf. 1	Conf. 2
Refrigerant	R404A	R404A
Application	LBP+MBP	LBP+MBP
System cooling	fan 1,5m/s	fan 1,5m/s
Hot gas defrost	-/-	-/-
Long interval pull down	-/-	-/-

Electrical data - Configurations with NL7CLX

	Conf. 1	Conf. 2
Starting device type	relay	PTC
Run capacitor	-/-	-/-
Start capacitor	80μF	-/-
LRA (locked rotor amps / 4s/ U(N))	11A	11A
RLA (rated load amps / 1s/ U(N))	1,8A	1,8A
Cut in current (U(N))	14,5A	14,5A

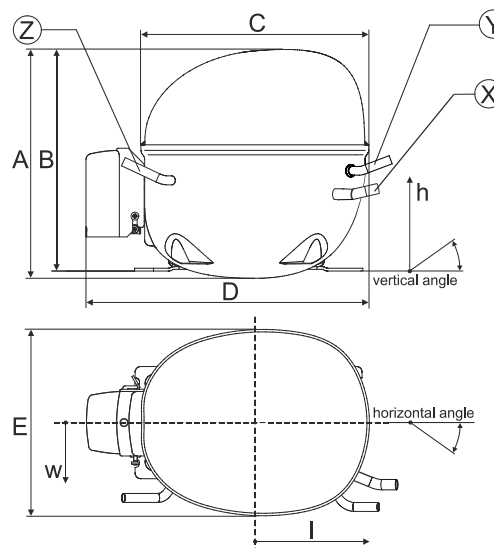
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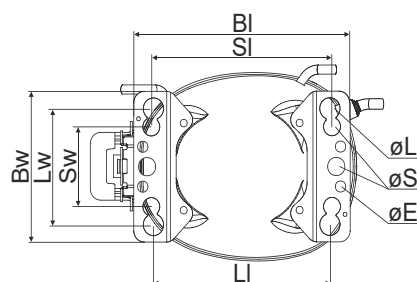
Compressor dimensions

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 X	Discharge Y	Process Z
Diameter [mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	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

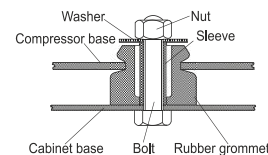


Compressor fixation

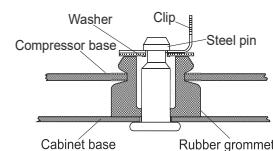


Baseplate	[mm]	[inch]
BI	204	8.03
BW	132	5.2
øE	ø 9.7	ø 0.38
Large holes	[mm]	[inch]
LI	165	6.5
LW	101.6	4
øL	ø 19	ø 0.75
Small holes	[mm]	[inch]
SI	170	6.7
SW	70	2.76
øS	ø 16	ø 0.63

Bolt joint



Snap-on

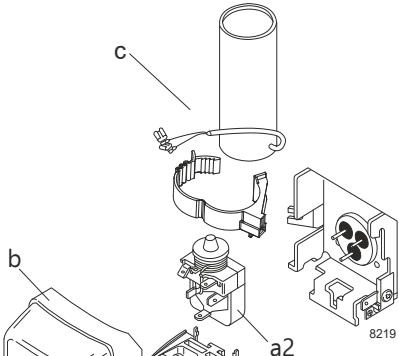


Mounting accessories

	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

Application notes

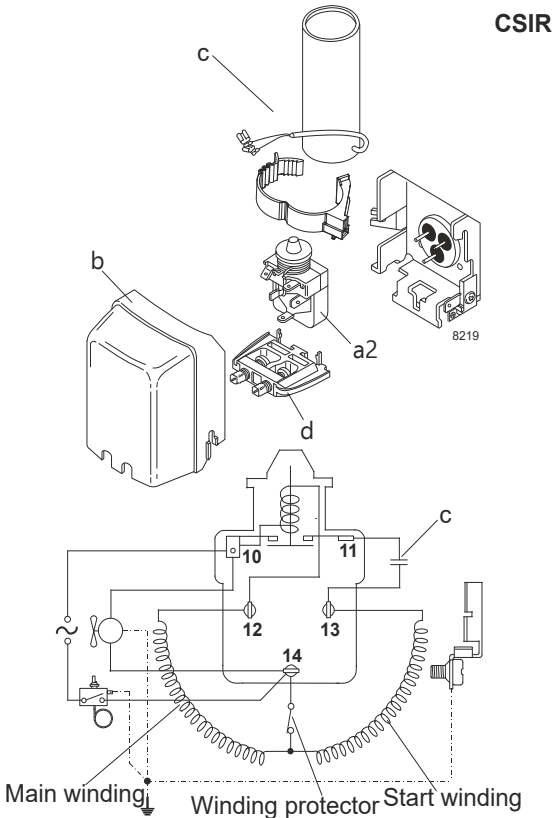
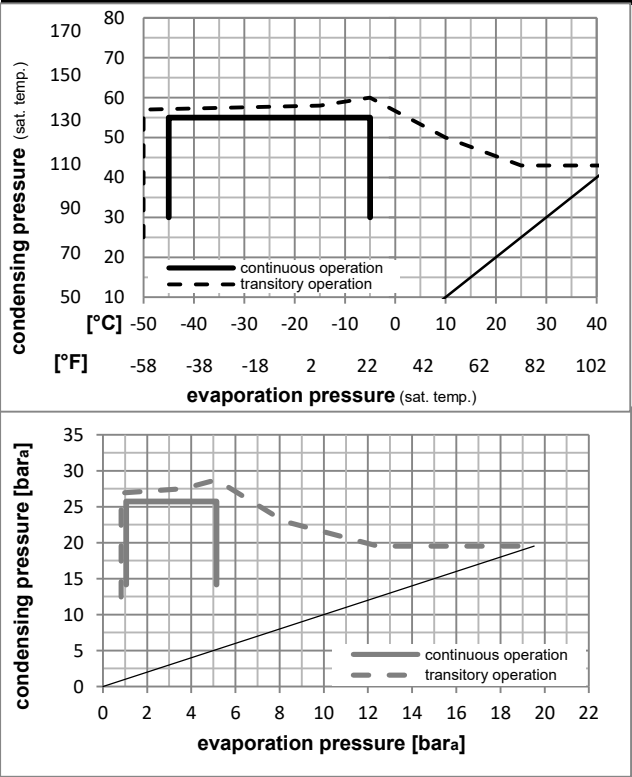
Provision for PE Grounding is located at the PE Stamp on the compressor

Model				
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Configuration		Electrical accessories / wiring diagram		
Motor configuration	CSIR			
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R404A			
Application	LBP+MBP			
Voltage range	198-254V			
Starting torque	HST			
Approvals	VDE			
	UL			
	CCC			
	EAC			

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	assy. relay	117U6002
c	start capacitor (80µF)	117U5015
b	plastic cover	103N2010
d	cord relief	103N1010

Alternative components		
b	plastic cover	103N2011

Model

Designation **NL7CLX** **220-240V/50Hz** Conf. 1 Sales code: **105F3713**

Optimization + standard conditions

R404A, 220V/50Hz, CSIR, fan 3m/s, VDE, UL, CCC, EAC

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption			
Return gas temp.					Liquid temp.						Current consumption			
Cooling capacity					COP		EER		P1				Ref. mass flow	
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	I	m		
[°C]	[°C]										[A]	[kg/h]		
[°C]	-23	54	32	32	387,3	1323	333,3	1,31	4,48	1,13	295,3	1,79	9,02	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	262,5	897	225,9	0,93	3,17	0,80	282,8	1,74	8,20	cecomaf LBP
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	210,3	718	181,0	1,01	3,43	0,87	209,1	1,44	5,71	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-23	49	4,4	49	292,1	997	251,3	1,00	3,43	0,86	290,6	1,75	10,34	ARI540 LBP
[°F]	-10	120	40	120										
[°C]	-23	41	32	32	440,3	1504	378,9	1,61	5,49	1,38	274,1	1,68	10,26	AHAM LBP
[°F]	-10	105	90	90										
[°C]	-35	45	32	45	198,9	679	171,2	0,93	3,17	0,80	214,5	1,46	5,32	opt
[°F]	-31	113	90	113										

Performance tables

R404A, 220V/50Hz, CSIR, fan 3m/s, VDE, UL, CCC, EAC

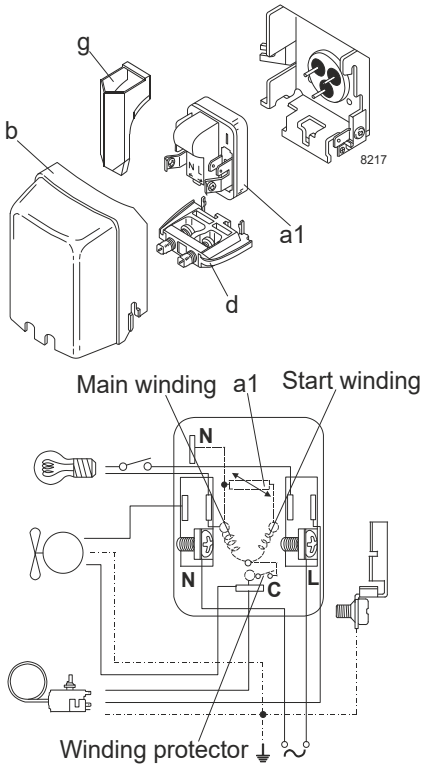
	pe		Cooling capacity			COP			EER			P1			I			m		
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]
[°C / °F]	-45	-49	102,0	349	87,8	0,65	2,21	0,56	157,8	1,31	2,71	157,8	1,31	2,71	157,8	1,31	2,71	157,8	1,31	2,71
cond. pressure	-35	-31	198,9	679	171,2	0,93	3,17	0,80	214,5	1,46	5,32	214,5	1,46	5,32	214,5	1,46	5,32	214,5	1,46	5,32
pc= 45/113	-30	-22	263,3	899	226,6	1,08	3,70	0,93	243,3	1,56	7,07	243,3	1,56	7,07	243,3	1,56	7,07	243,3	1,56	7,07
return gas temp.	-25	-13	340,1	1161	292,7	1,24	4,25	1,07	273,5	1,68	9,17	273,5	1,68	9,17	273,5	1,68	9,17	273,5	1,68	9,17
RGT= 32/90	-20	-4	430,4	1470	370,4	1,41	4,80	1,21	306,1	1,81	11,68	306,1	1,81	11,68	306,1	1,81	11,68	306,1	1,81	11,68
liquid temp	-15	5	535,6	1829	460,9	1,57	5,35	1,35	341,8	1,96	14,63	341,8	1,96	14,63	341,8	1,96	14,63	341,8	1,96	14,63
Tliq= 45/113	-5	23	795,7	2717	684,8	1,87	6,38	1,61	426,0	2,32	22,12	426,0	2,32	22,12	426,0	2,32	22,12	426,0	2,32	22,12
[°C / °F]	-45	-49	69,8	238	60,1	0,49	1,66	0,42	143,8	1,28	2,14	143,8	1,28	2,14	143,8	1,28	2,14	143,8	1,28	2,14
cond. pressure	-35	-31	147,7	504	127,1	0,70	2,38	0,60	211,9	1,48	4,57	211,9	1,48	4,57	211,9	1,48	4,57	211,9	1,48	4,57
pc= 55/131	-30	-22	199,9	683	172,0	0,81	2,77	0,70	246,5	1,60	6,21	246,5	1,60	6,21	246,5	1,60	6,21	246,5	1,60	6,21
return gas temp	-25	-13	262,5	897	225,9	0,93	3,17	0,80	282,8	1,74	8,20	282,8	1,74	8,20	282,8	1,74	8,20	282,8	1,74	8,20
RGT= 32/90	-20	-4	337,0	1151	290,0	1,05	3,58	0,90	321,4	1,90	10,60	321,4	1,90	10,60	321,4	1,90	10,60	321,4	1,90	10,60
liquid temp	-15	5	424,4	1450	365,3	1,17	3,99	1,01	363,3	2,07	13,46	363,3	2,07	13,46	363,3	2,07	13,46	363,3	2,07	13,46
Tliq= 55/131	-5	23	643,6	2198	553,9	1,40	4,78	1,20	460,2	2,47	20,83	460,2	2,47	20,83	460,2	2,47	20,83	460,2	2,47	20,83

Model					
Designation	NL7CLX	220-240V/50Hz	Conf. 2	Sales code:	105F3713

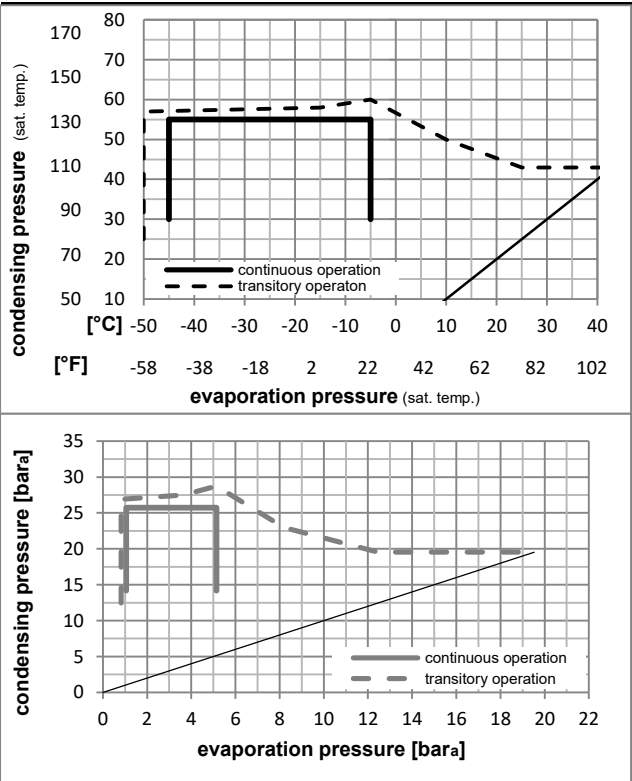
Configuration	Electrical accessories / wiring diagram				
Motor configuration	RSIR	RSIR			
Power supply (nominal)	220-240V/50Hz 1~				
Refrigerant	R404A				
Application	LBP+MBP				
Voltage range	198-254V				
Starting torque	LST				
Approvals	VDE				
	UL				
	CCC				
	EAC				

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	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 **NL7CLX** **220-240V/50Hz** Conf. 2 Sales code: **105F3713**

Optimization + standard conditions

R404A, 220V/50Hz, RSIR, fan 3m/s, VDE, UL, CCC, EAC

Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)		Return gas temp.		Liquid temp.		Cooling capacity		COP	EER	Power consumption		
												Current consumption		Ref. mass flow
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I			m
										[W]	[A]			[kg/h]
[°C]	-23	54	32	32	387,3	1323	333,3	1,31	4,48	1,13	295,3	1,79	9,02	ASHRAE LBP
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[°F]	-31	104	68	104										
[°C]	-23	49	4,4	49	292,1	997	251,3	1,00	3,43	0,86	290,6	1,75	10,34	ARI540 LBP
[°F]	-10	120	40	120										
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[°F]	-10	105	90	90										
[°C]	-35	45	32	45	198,9	679	171,2	0,93	3,17	0,80	214,5	1,46	5,32	opt
[°F]	-31	113	90	113										

Performance tables

R404A, 220V/50Hz, RSIR, fan 3m/s, VDE, UL, 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]	-45	-49	102,0	349	87,8	0,65	2,21	0,56	157,8	1,31	2,71
cond. pressure	-35	-31	198,9	679	171,2	0,93	3,17	0,80	214,5	1,46	5,32
pc= 45/113	-30	-22	263,3	899	226,6	1,08	3,70	0,93	243,3	1,56	7,07
return gas temp.	-25	-13	340,1	1161	292,7	1,24	4,25	1,07	273,5	1,68	9,17
RGT= 32/90	-20	-4	430,4	1470	370,4	1,41	4,80	1,21	306,1	1,81	11,68
liquid temp	-15	5	535,6	1829	460,9	1,57	5,35	1,35	341,8	1,96	14,63
Tliq= 45/113	-5	23	795,7	2717	684,8	1,87	6,38	1,61	426,0	2,32	22,12
[°C / °F]	-45	-49	69,8	238	60,1	0,49	1,66	0,42	143,8	1,28	2,14
cond. pressure	-35	-31	147,7	504	127,1	0,70	2,38	0,60	211,9	1,48	4,57
pc= 55/131	-30	-22	199,9	683	172,0	0,81	2,77	0,70	246,5	1,60	6,21
return gas temp	-25	-13	262,5	897	225,9	0,93	3,17	0,80	282,8	1,74	8,20
RGT= 32/90	-20	-4	337,0	1151	290,0	1,05	3,58	0,90	321,4	1,90	10,60
liquid temp	-15	5	424,4	1450	365,3	1,17	3,99	1,01	363,3	2,07	13,46
Tliq= 55/131	-5	23	643,6	2198	553,9	1,40	4,78	1,20	460,2	2,47	20,83