

Model

Designation	NLE13MNDX	220-240V/50Hz 1~	Sales code:	105H7312
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	32cSt	Displacement	12,6cm³ / 0,77cu.in
Oil quantity	300cm³ / 10,1fl.oz	Compressors on pallet	64
Refr. charge - tech. limit	300g / 10,6oz		
Free gas volume comp.	2360cm³ / 79,8fl.oz		
Weight	11,8kg / 26lbs		
Motor protection	external		
Winding resistance main	7,5Ω (at 25°C)		
Winding resistance aux	12,9Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with NLE13MNDX

Conf. 1

Motor configuration	CSCR
Power supply (nominal)	220-240V/50Hz
Number of phases	1
Voltage range	198-254V
Approvals	VDE, CCC
Starting torque	HST
Note	Starter kit(relay), cover and cord relief are included and pre-assembled.

Applications with NLE13MNDX

Conf. 1

Refrigerant	R290
Application	MBP
System cooling	fan 3m/s
Hot gas defrost	OK
Long interval pull down	OK

Electrical data - Configurations with NLE13MNDX

Conf. 1

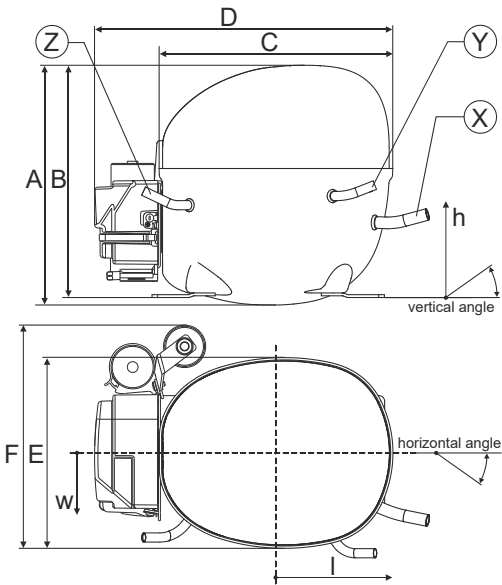
Starting device type	relay
Run capacitor	10μF
Start capacitor	80μF
LRA (locked rotor amps / 4s/ U(N))	16,7A
RLA (rated load amps / 1s/ U(N))	2,2A
Cut in current (U(N))	16,7A

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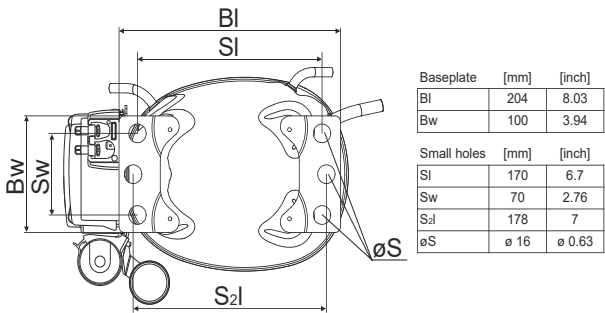
Compressor dimensions

Housing	A Height	209mm / 8,23in
	B Height	203mm / 7,99in
	C Length shell	205mm / 8,07in
	D Length w. cover	262mm / 10,31in
	E Width	166mm / 6,54in

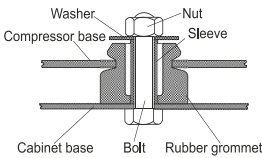
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material	copper	copper	copper
Horizontal angle ±2°	11°	0°	0°
Vertical angle ±2°	15°	21°	25°
Position l/h/w [mm]	140/72/59	94/98/87	-109/93/74
	[in] 5,5/2,8/2,3	3,7/3,9/3,4	-4,3/3,7/2,9
Straight tube l.	[mm] 12	12	12
	[in] 0,5	0,5	0,5



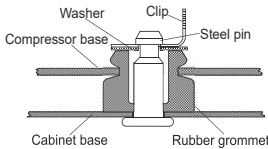
Compressor fixation



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	
Snap-on ø7,3 ø16mm	118-1947	118-1919

Application notes

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

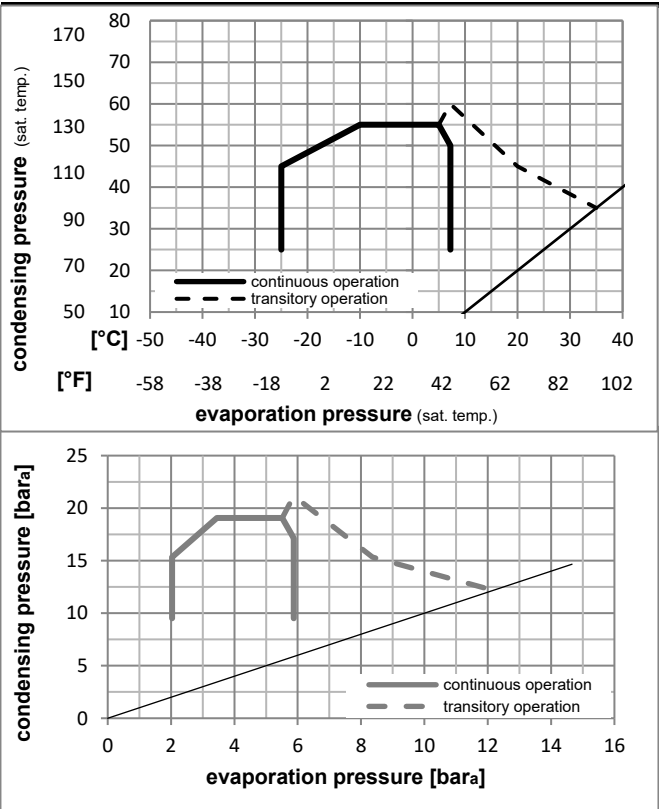
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Configuration		Electrical accessories / wiring diagram		
Motor configuration	CSCR	CSCR		
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R290			
Application	MBP			
Voltage range	198-254V			
Starting torque	HST			
Approvals	VDE CCC			

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 (Starter kit (a6)+cover (b) +cord relief (d): pre assembled)

a6	NL starter kit	117U8201
c	start capacitor (80μF)	117U5353
e	run cap (10μF, 6.3mm,c.length 280mm)	117-7166
b	cover terminal board + clamp	117U1038
e1	retaining clamp	117-0314
	screw M4x8mm	117-0301
d	cord relief	103N1007

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Optimization + standard conditions

R290, 220V/50Hz, CSCR, fan 3m/s, VDE, CCC

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption																			
Return gas temp.					Current consumption						Ref. mass flow																			
Liquid temp.					Cooling capacity						COP				EER				P1				I				ṁ			
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]																		
[°C]	-7	54	35	46	1139,5	3892	980,7	2,09	7,15	1,80	544,3	2,55	13,00	ASHRAE MBP																
[°F]	20	130	95	115																										
[°C]	-10	55	32	55	906,1	3095	779,8	1,75	5,99	1,51	516,3	2,43	11,46	cecomaf MBP																
[°F]	14	131	90	131																										
[°C]	-10	45	20	45	1015,3	3468	873,8	2,19	7,49	1,89	463,2	2,19	12,47	EN12900 MBP																
[°F]	14	113	68	113																										
[°C]	-7	49	18	49	1075,5	3673	925,6	2,12	7,23	1,82	507,8	2,39	13,96	ARI540 MBP																
[°F]	20	120	65	120																										
[°C]	-10	45	32	45	1057,0	3610	909,7	2,28	7,79	1,96	463,2	2,19	12,09	opt																
[°F]	14	113	90	113																										
[°C]	-25	45	32	45	569,7	1946	490,3	1,60	5,48	1,38	355,1	1,73	6,43	opt																
[°F]	-13	113	90	113																										

Performance tables

R290, 220V/50Hz, CSCR, fan 3m/s, VDE, CCC

	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]	-25	-13	569,7	1946	490,3	1,60		5,48	1,38		355,1		1,73		6,43	
cond. pressure	-20	-4	710,1	2425	611,2	1,82		6,20	1,56		391,0		1,88		8,04	
pc= 45/113	-15	5	872,2	2979	750,6	2,04		6,96	1,75		427,7		2,03		9,92	
return gas temp.	-10	14	1057,0	3610	909,7	2,28		7,79	1,96		463,2		2,19		12,09	
RGT= 32/90	-5	23	1265,9	4323	1089,5	2,56		8,73	2,20		495,3		2,33		14,58	
liquid temp	0	32	1500,1	5123	1291,0	2,87		9,81	2,47		522,0		2,45		17,40	
Tliq= 45/113	7,2	45	1884,3	6435	1621,6	3,45		11,77	2,97		546,8		2,56		22,14	
[°C / °F]	-25	-13	484,2	1654	416,7	1,30		4,44	1,12		372,2		1,80		6,03	
cond. pressure	-20	-4	605,4	2067	521,0	1,44		4,93	1,24		419,0		2,00		7,57	
pc= 55/131	-15	5	745,6	2546	641,7	1,59		5,44	1,37		467,7		2,21		9,37	
return gas temp	-10	14	906,1	3095	779,8	1,75		5,99	1,51		516,3		2,43		11,46	
RGT= 32/90	-5	23	1088,2	3716	936,5	1,93		6,60	1,66		562,8		2,63		13,86	
liquid temp	0	32	1293,0	4416	1112,7	2,14		7,30	1,84		604,9		2,82		16,61	
Tliq= 55/131	7,2	45	1630,3	5568	1403,1	2,49		8,51	2,15		653,9		3,05		21,24	