

Single Pack NLE11MN 220-240V 50Hz CSIR

Single pack code number: **195B4195**

Position	Title	Code	Amount
1	Compressor NLE11MN	105H6177	1
2	Starting relay	117U7005	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	NLE11MN	220-240V/50Hz 1~	Sales code:	105H6177
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	32cST	Displacement	11,15cm ³ / 0,68cu.in
Oil quantity	298cm ³ / 10,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2360cm ³ / 79,8fl.oz		
Weight	11,8kg / 26lbs		
Motor protection	1# internal		
Winding resistance main	4,94Ω (at 25°C)		
Winding resistance aux	8,89Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with NLE11MN

	Conf. 1	Conf. 2	Conf. 3
Motorconfiguration	CSIR	RSIR	RSCR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1	1
Voltage range	198-254V	198-254V	198-254V
Approvals	CCC, EAC, VDE	CCC, EAC, VDE	CCC, EAC, VDE
Starting torque	HST	LST	LST
Note	- / -		

Applications with NLE11MN

	Conf. 1	Conf. 2	Conf. 3
Refrigerant	R290	R290	R290
Application	MBP	MBP	MBP
System cooling	fan 3m/s	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK	OK
Long interval pull down	OK	OK	OK

Electrical data - Configurations with NLE11MN

	Conf. 1	Conf. 2	Conf. 3
Starting device type	relay	PTC	PTC
Run capacitor	-/-	-/-	4μF
Start capacitor	80μF	-/-	-/-
LRA (locked rotor amps / 4s)	13,65A	14,45A	14,2A
RLA (rated load amps / 1s)	2,8A	2,8A	2,5A
Cut in current	13,65A	19,4A	19,4A

Model

Designation

NLE11MN

220-240V/50Hz 1~

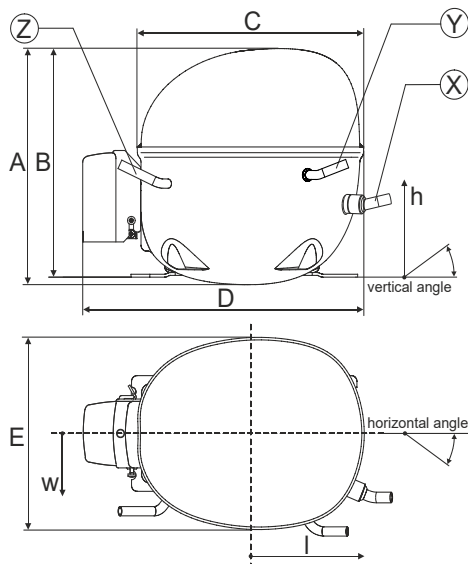
Sales code:

105H6177

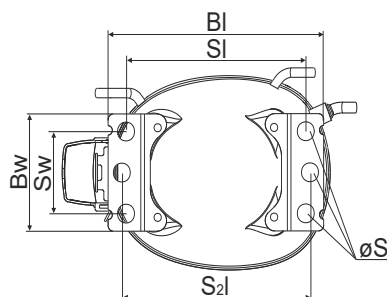
Compressor dimensions

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	Discharge	Process
		X	Y	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°	21°	155°
Position l/h/w	[mm]	132/69/57	94/102/81	-109/94/72
	[in]	5,2/2,7/2,2	3,7/4/3,2	-4,3/3,7/2,8
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

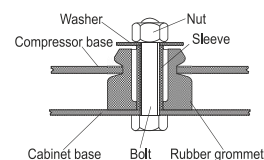


Compressor fixation

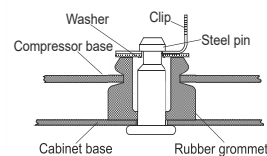


Baseplate	[mm]	[inch]
BI	204	8.03
BW	100	3.94
Small holes		
SI	170	6.7
SW	70	2.76
S2l	178	7
øS	ø 16	ø 0.63

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

Application notes

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

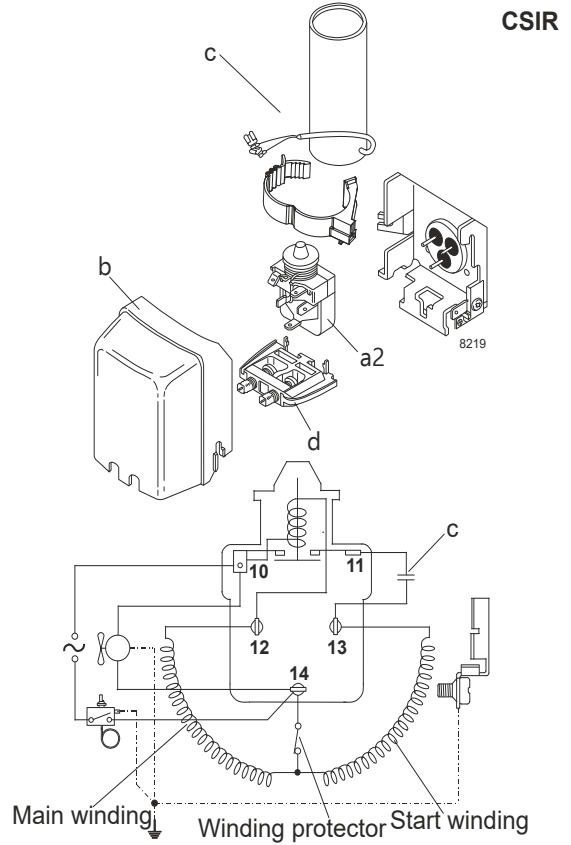
Model

Designation	NLE11MN	220-240V/50Hz	Conf. 1	Sales code:	105H6177
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	MBP
Voltage range	198-254V
Starting torque	HST
Approvals	CCC
	EAC
	VDE

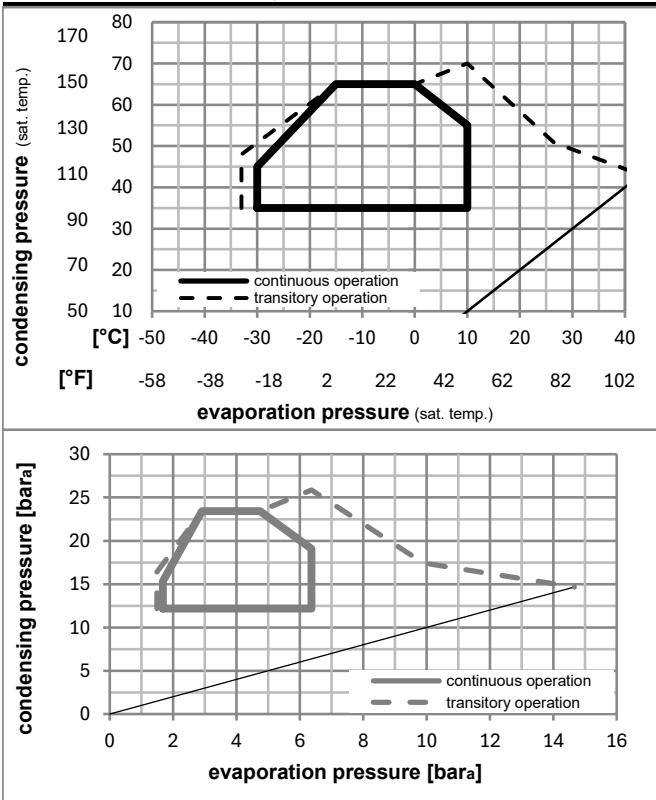
Electrical accessories / wiring diagram



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	relay	117U7005
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 **NLE11MN** **220-240V/50Hz** Conf. 1 Sales code: **105H6177**

Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.		Liquid temp.		Cooling capacity			COP	EER	Power consumption		
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m						
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]							[W]	[A]	[kg/h]						
		-7	54	35	46	981,8	3353	844,9	2,01	6,87	1,73	488,1	2,86	11,20						ASHRAE MBP
		20	130	95	115															
		-10	55	32	55	781,6	2669	672,6	1,68	5,75	1,45	463,9	2,76	9,89						cecomaf MBP
		14	131	90	131															
		-10	45	20	45	869,4	2969	748,2	2,06	7,03	1,77	422,5	2,63	10,67						EN12900 MBP
		14	113	68	113															
		-7	49	18	49	922,9	3152	794,3	2,00	6,83	1,72	461,3	2,77	11,98						ARI540 MBP
		20	120	65	120															
		-10	45	32	45	905,1	3091	778,9	2,14	7,32	1,84	422,5	2,63	10,35						opt
		14	113	90	113															
		-25	45	32	45	489,3	1671	421,1	1,51	5,15	1,30	324,6	2,28	5,52						opt
		-13	113	90	113															

Performance tables

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

	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]	-30	-22	390,2	1333	335,8	1,33	4,56	1,15	292,4	2,20	4,39
cond. pressure	-25	-13	489,3	1671	421,1	1,51	5,15	1,30	324,6	2,28	5,52
pc= 45/113	-15	5	745,7	2547	641,8	1,91	6,52	1,64	390,5	2,51	8,48
return gas temp.	-10	14	905,1	3091	778,9	2,14	7,32	1,84	422,5	2,63	10,35
RGT= 32/90	0	32	1291,2	4410	1111,2	2,69	9,19	2,32	479,9	2,85	14,98
liquid temp	5	41	1519,9	5191	1308,1	3,02	10,31	2,60	503,4	2,93	17,78
Tliq= 45/113	10	50	1773,7	6058	1526,5	3,40	11,60	2,92	522,2	2,98	20,96
[°C / °F]	-30	-22	339,5	1160	292,2	1,12	3,82	0,96	303,8	2,23	4,21
cond. pressure	-25	-13	423,0	1445	364,1	1,24	4,22	1,06	342,1	2,33	5,27
pc= 55/131	-15	5	643,1	2196	553,4	1,52	5,19	1,31	423,1	2,60	8,09
return gas temp	-10	14	781,6	2669	672,6	1,68	5,75	1,45	463,9	2,76	9,89
RGT= 32/90	0	32	1120,6	3827	964,4	2,07	7,07	1,78	541,4	3,08	14,39
liquid temp	5	41	1323,1	4519	1138,7	2,30	7,84	1,98	576,3	3,22	17,16
Tliq= 55/131	10	50	1549,0	5290	1333,1	2,55	8,71	2,20	607,3	3,34	20,31

Model

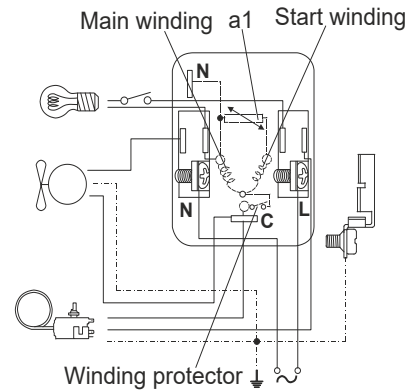
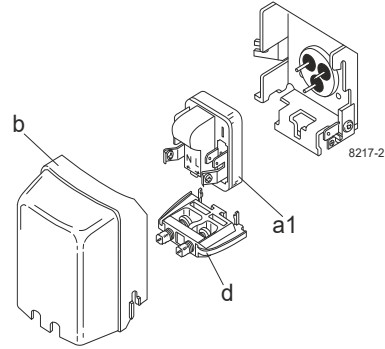
Designation	NLE11MN	220-240V/50Hz	Conf. 2	Sales code:	105H6177
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Configuration

Motorconfiguration	RSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	MBP
Voltage range	198-254V
Starting torque	LST
Approvals	CCC
	EAC
	VDE

Electrical accessories / wiring diagram

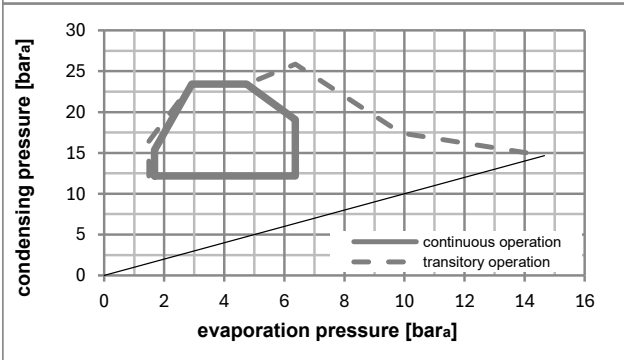
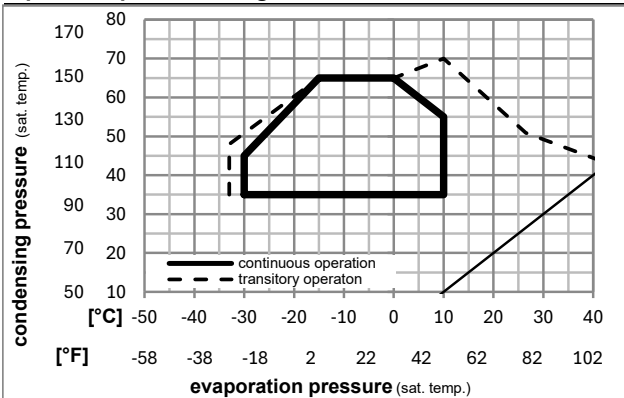
RSIR



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	e-PTC starter (220V, 25Ohm, 4.8mm)	103N0050
b	plastic cover	103N2010
d	cord relief	103N1010

Alternative components

b	plastic cover	103N2011
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Model

Designation	NLE11MN	220-240V/50Hz	Conf. 2	Sales code:	105H6177
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Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Cooling capacity			COP	EER	P1	Power consumption		ASHRAE MBP					
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]				I	m						
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]					
	-7	20	54	130	35	95	46	115	981,8	3353	844,9	2,01	6,87	1,73	488,1	2,86	11,20	ASHRAE MBP
	-10	14	55	131	32	90	55	131	781,6	2669	672,6	1,68	5,75	1,45	463,9	2,76	9,89	cecomaf MBP
	-10	14	45	113	20	68	45	113	869,4	2969	748,2	2,06	7,03	1,77	422,5	2,63	10,67	EN12900 MBP
	-7	20	49	120	18	65	49	120	922,9	3152	794,3	2,00	6,83	1,72	461,3	2,77	11,98	ARI540 MBP
	-10	14	45	113	32	90	45	113	905,1	3091	778,9	2,14	7,32	1,84	422,5	2,63	10,35	opt
	-25	-13	45	113	32	90	45	113	489,3	1671	421,1	1,51	5,15	1,30	324,6	2,28	5,52	opt

Performance tables

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

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]						
[°C / °F]	-30	-22	390,2	1333	335,8	1,33	4,56	1,15	292,4	2,20	4,39
cond. pressure	-25	-13	489,3	1671	421,1	1,51	5,15	1,30	324,6	2,28	5,52
pc= 45/113	-15	5	745,7	2547	641,8	1,91	6,52	1,64	390,5	2,51	8,48
return gas temp.	-10	14	905,1	3091	778,9	2,14	7,32	1,84	422,5	2,63	10,35
RGT= 32/90	0	32	1291,2	4410	1111,2	2,69	9,19	2,32	479,9	2,85	14,98
liquid temp	5	41	1519,9	5191	1308,1	3,02	10,31	2,60	503,4	2,93	17,78
Tliq= 45/113	10	50	1773,7	6058	1526,5	3,40	11,60	2,92	522,2	2,98	20,96
[°C / °F]	-30	-22	339,5	1160	292,2	1,12	3,82	0,96	303,8	2,23	4,21
cond. pressure	-25	-13	423,0	1445	364,1	1,24	4,22	1,06	342,1	2,33	5,27
pc= 55/131	-15	5	643,1	2196	553,4	1,52	5,19	1,31	423,1	2,60	8,09
return gas temp	-10	14	781,6	2669	672,6	1,68	5,75	1,45	463,9	2,76	9,89
RGT= 32/90	0	32	1120,6	3827	964,4	2,07	7,07	1,78	541,4	3,08	14,39
liquid temp	5	41	1323,1	4519	1138,7	2,30	7,84	1,98	576,3	3,22	17,16
Tliq= 55/131	10	50	1549,0	5290	1333,1	2,55	8,71	2,20	607,3	3,34	20,31

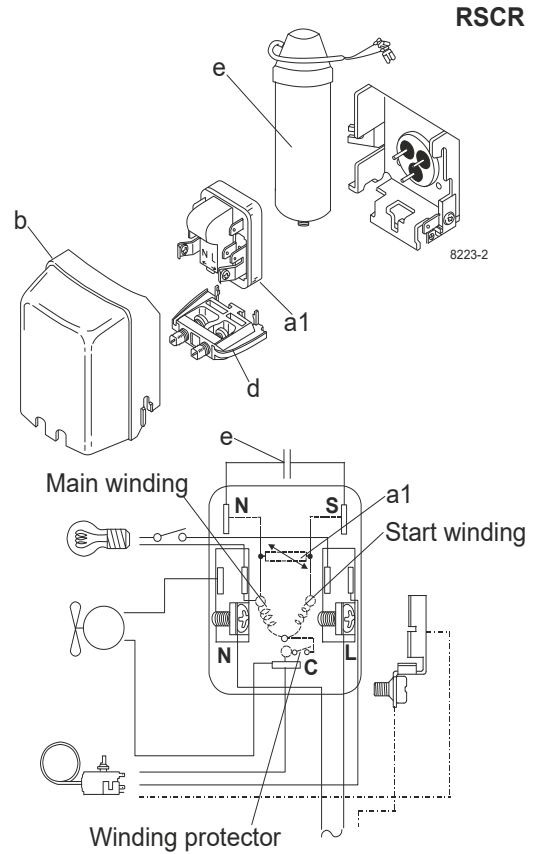
Model

Designation	NLE11MN	220-240V/50Hz	Conf. 3	Sales code:	105H6177
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Configuration

Motorconfiguration	RSCR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	MBP
Voltage range	198-254V
Starting torque	LST
Approvals	CCC
	EAC
	VDE

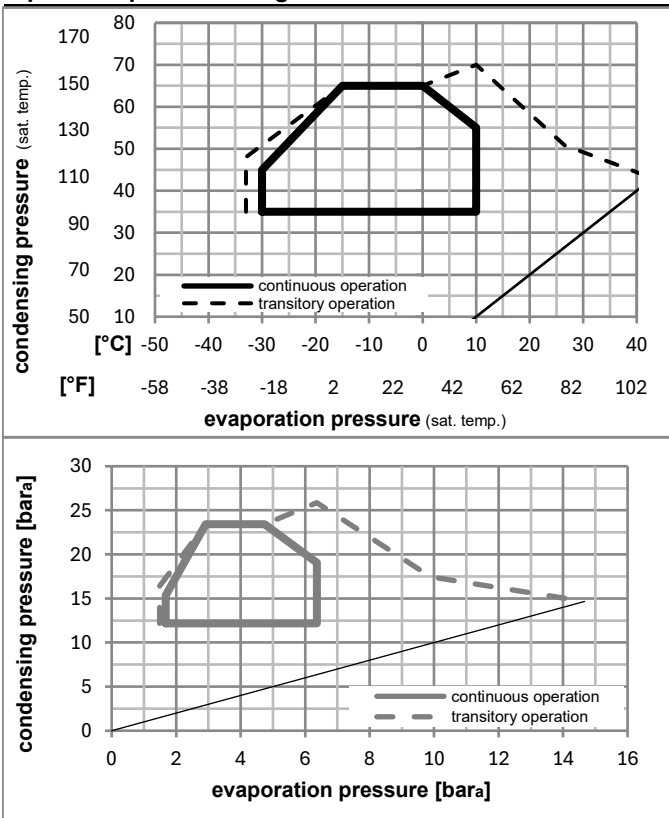
Electrical accessories / wiring diagram



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	e-PTC starter (220V, 250hm, 4.8mm)	103N0050
e	run capacitor (4μF, 4.8mm)	117-7119
b	plastic cover	103N2010
d	cord relief	103N1010
	bracket for run capacitor	117-0300
	screw M4x8mm	117-0301

Alternative components

b	plastic cover	103N2011
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Model

Designation **NLE11MN** **220-240V/50Hz** Conf. 3 Sales code: **105H6177**

Optimization + standard conditions

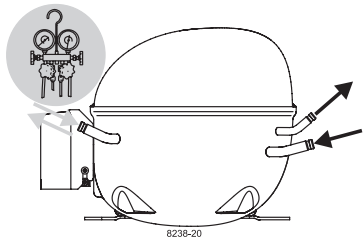
R290, 220V/50Hz, RSCR, fan 3m/s, CCC, EAC, VDE

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.		Liquid temp.		Cooling capacity		COP	EER		P1	I	Ref. mass flow		
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]			
[°C]	-7	54	35	46	986,3	3368	848,8	2,11	7,21	1,82	467,4	2,74	11,25	ASHRAE MBP	
[°F]	20	130	95	115											
[°C]	-10	55	32	55	784,8	2680	675,4	1,77	6,03	1,52	444,2	2,64	9,93	cecomaf MBP	
[°F]	14	131	90	131											
[°C]	-10	45	20	45	873,1	2982	751,4	2,16	7,37	1,86	404,7	2,52	10,72	EN12900 MBP	
[°F]	14	113	68	113											
[°C]	-7	49	18	49	927,2	3167	798,0	2,10	7,17	1,81	441,8	2,65	12,04	ARI540 MBP	
[°F]	20	120	65	120											
[°C]	-10	45	32	45	909,0	3104	782,3	2,25	7,67	1,93	404,7	2,52	10,40	opt	
[°F]	14	113	90	113											
[°C]	-25	45	32	45	491,0	1677	422,5	1,58	5,41	1,36	309,9	2,18	5,54	opt	
[°F]	-13	113	90	113											

Performance tables

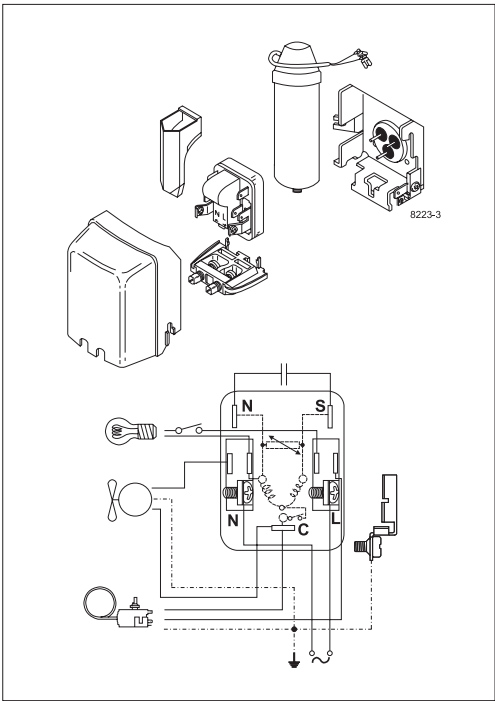
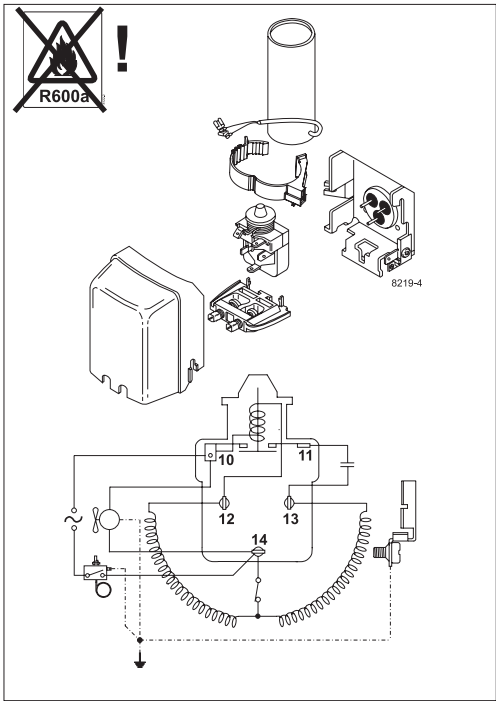
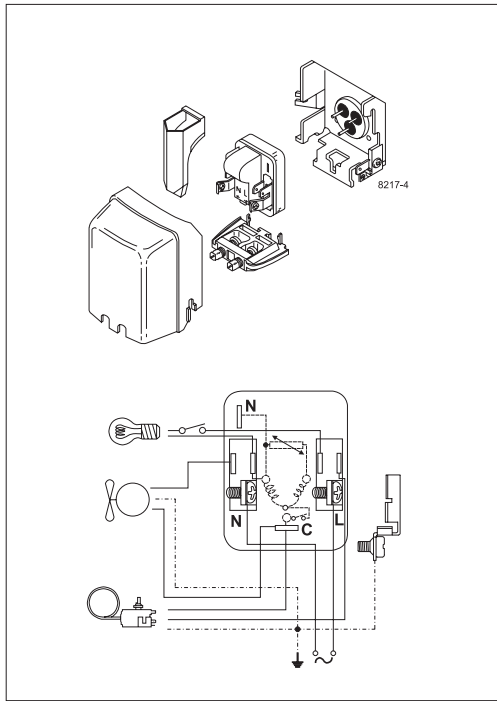
R290, 220V/50Hz, RSCR, fan 3m/s, CCC, EAC, VDE

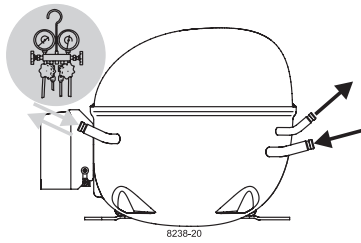
	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-30	-22	391,3	1336	336,7	1,40	4,79	1,21	278,9	2,10	4,40
cond. pressure	-25	-13	491,0	1677	422,5	1,58	5,41	1,36	309,9	2,18	5,54
pc= 45/113	-15	5	748,6	2556	644,2	2,00	6,84	1,72	373,8	2,40	8,52
return gas temp.	-10	14	909,0	3104	782,3	2,25	7,67	1,93	404,7	2,52	10,40
RGT= 32/90	0	32	1299,1	4437	1118,0	2,83	9,66	2,43	459,2	2,73	15,07
liquid temp	5	41	1531,4	5230	1317,9	3,18	10,87	2,74	480,9	2,80	17,92
Tliq= 45/113	10	50	1790,1	6113	1540,6	3,60	12,29	3,10	497,6	2,84	21,15
[°C / °F]	-30	-22	340,6	1163	293,1	1,18	4,01	1,01	289,8	2,13	4,22
cond. pressure	-25	-13	424,6	1450	365,4	1,30	4,44	1,12	326,8	2,22	5,29
pc= 55/131	-15	5	645,5	2205	555,5	1,59	5,44	1,37	405,0	2,49	8,12
return gas temp	-10	14	784,8	2680	675,4	1,77	6,03	1,52	444,2	2,64	9,93
RGT= 32/90	0	32	1127,3	3850	970,2	2,18	7,43	1,87	518,0	2,94	14,48
liquid temp	5	41	1333,0	4552	1147,2	2,42	8,27	2,08	550,5	3,07	17,28
Tliq= 55/131	10	50	1563,3	5339	1345,4	2,70	9,23	2,32	578,7	3,18	20,50



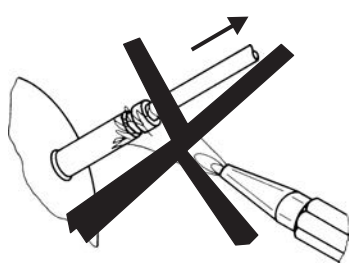
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NL Compressors

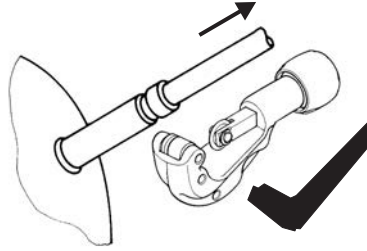




Service/Repair – R600a, R290

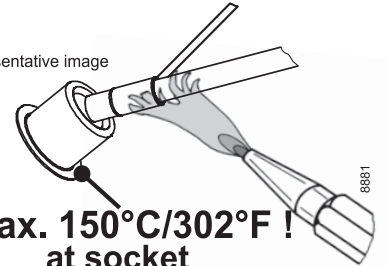


8545



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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