

Model

Designation	NLE10MF.2	220-240V/50Hz 1~	Sales code:	105G6187
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, R513A
Oil viscosity	19,2cSt	Displacement	10,09cm³ / 0,62cu.in
Oil quantity	300cm³ / 10,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	600g / 21,2oz		
Free gas volume comp.	2360cm³ / 79,8fl.oz		
Weight	10,9kg / 24lbs		
Motor protection	1# internal		
Winding resistance main	9,28Ω (at 25°C)		
Winding resistance aux	11,64Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	110°C / 230°F		



General - Configurations with NLE10MF.2

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSIR	eRSIR	eRSCR	CSIR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1	1	1
Voltage range	198-254V	198-254V	198-254V	198-254V
Approvals	VDE	VDE	VDE	VDE
Starting torque	HST	LST	LST	HST
Note	- / -			

Applications with NLE10MF.2

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Refrigerant	R134a	R134a	R134a	R513A
Application	LBP+MBP	LBP+MBP	LBP+MBP	LBP+MBP
System cooling	fan 3m/s	fan 3m/s	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

Electrical data - Configurations with NLE10MF.2

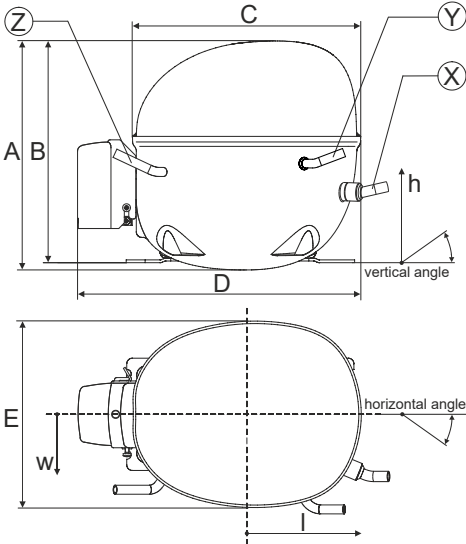
	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	relay	e-PTC	e-PTC	relay
Run capacitor	-/-	-/-	4μF	-/-
Start capacitor	80μF	-/-	-/-	80μF
LRA (locked rotor amps / 4s/ U(N))	11,3A	10,7A	10,1A	11,3A
RLA (rated load amps / 1s/ U(N))	2,15A	2,15A	2,05A	2,15A
Cut in current (U(N))	11,3A	15,9A	15,9A	11,3A

Model			
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Compressor dimensions

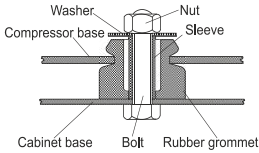
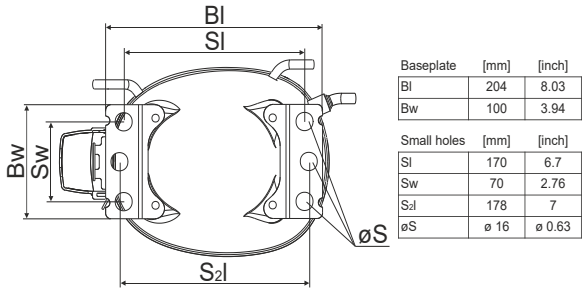
Housing	A Height	203mm / 7,99in
	B Height	197mm / 7,76in
	C Length shell	205mm / 8,07in
	D Length w. cover	254mm / 10in
	E Width	166mm / 6,54in

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°	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

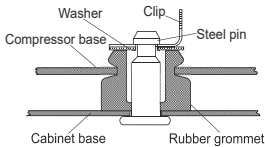


Compressor fixation

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

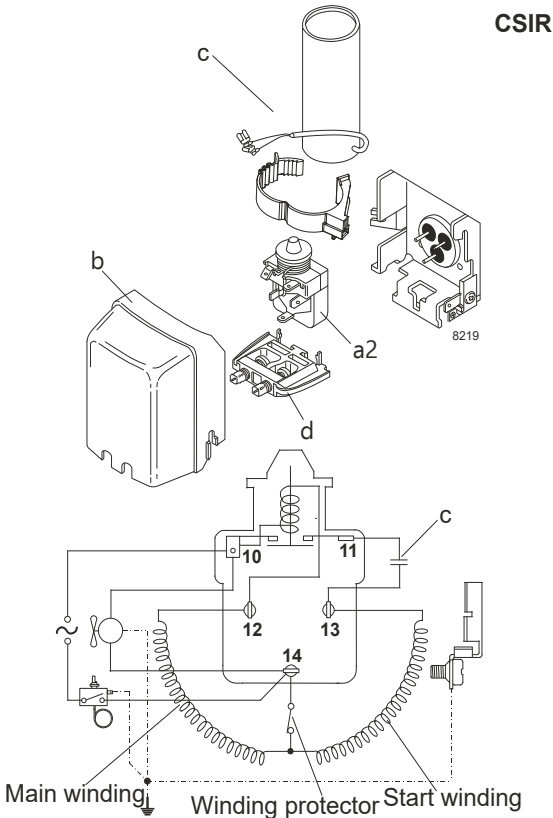
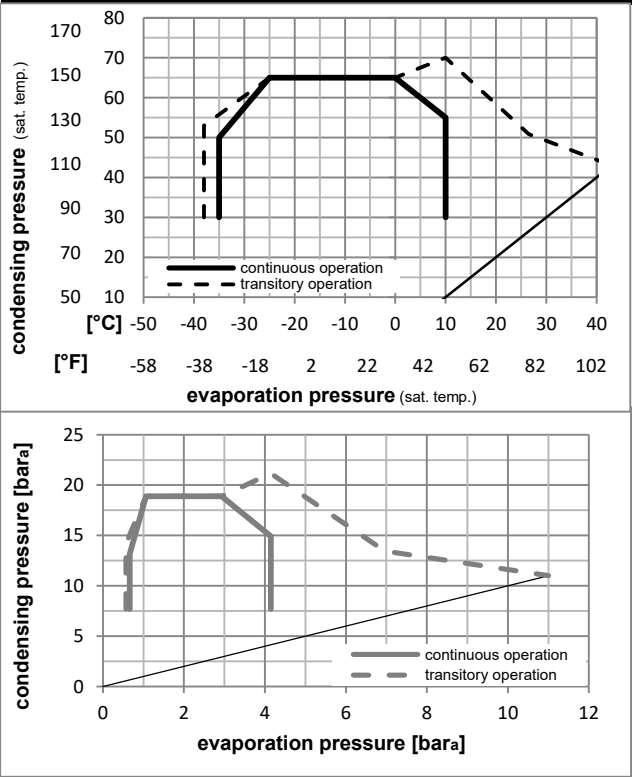
Model					
Designation	NLE10MF.2	220-240V/50Hz	Conf. 1	Sales code:	105G6187

Configuration	Electrical accessories / wiring diagram				
Motor configuration	CSIR				
Power supply (nominal)	220-240V/50Hz 1~				
Refrigerant	R134a				
Application	LBP+MBP				
Voltage range	198-254V				
Starting torque	HST				
Approvals	VDE				

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
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Model

Designation **NLE10MF.2** **220-240V/50Hz** Conf. 1 Sales code: **105G6187**

Optimization + standard conditions

R134a, 220V/50Hz, CSIR, fan 3m/s, VDE

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption			
Return gas temp.					Liquid temp.						Current consumption			
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]	ṁ		
[°C]	-23	54	32	32										
[°F]	-10	130	90	90	289,0	987	248,7	1,45	4,95	1,25	199,4	1,54	5,61	ASHRAE LBP
[°C]	-25	55	32	55										
[°F]	-13	131	90	131	210,5	719	181,1	1,12	3,83	0,96	187,9	1,51	5,03	cecomaf LBP
[°C]	-35	40	20	40										
[°F]	-31	104	68	104	151,4	517	130,3	1,06	3,63	0,91	142,5	1,43	3,32	EN12900 LBP
[°C]	-7	54	35	46										
[°F]	20	130	95	115	609,2	2081	524,3	1,94	6,64	1,67	313,4	1,89	13,29	ASHRAE MBP
[°C]	-10	55	32	55										
[°F]	14	131	90	131	471,1	1609	405,5	1,62	5,54	1,40	290,4	1,81	11,39	cecomaf MBP
[°C]	-10	45	20	45										
[°F]	14	113	68	113	535,9	1830	461,2	1,99	6,79	1,71	269,6	1,75	12,54	EN12900 MBP

Performance tables

R134a, 220V/50Hz, CSIR, fan 3m/s, VDE

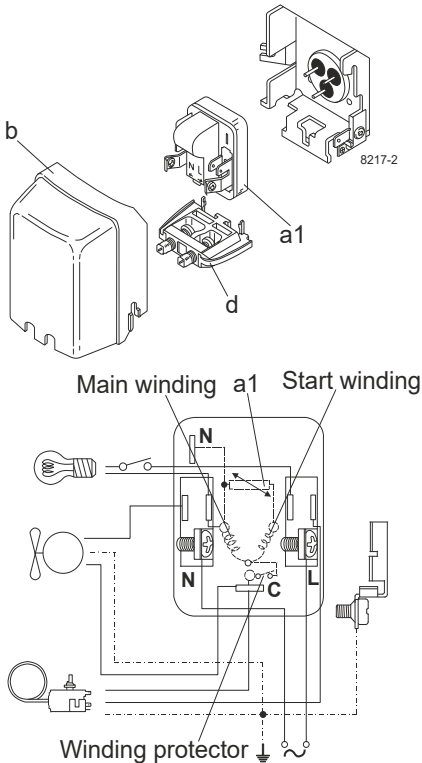
	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	134,3	459	115,5	0,94	3,21	0,81	143,0	1,43	2,90
cond. pressure	-25	-13	262,5	897	225,9	1,38	4,72	1,19	190,0	1,52	5,69
pc= 45/113	-15	5	440,7	1505	379,3	1,82	6,23	1,57	241,7	1,66	9,61
return gas temp.	-10	14	556,0	1899	478,5	2,06	7,04	1,78	269,6	1,75	12,17
RGT= 32/90	0	32	853,8	2916	734,8	2,59	8,84	2,23	330,0	1,96	18,88
liquid temp	5	41	1042,4	3560	897,1	2,87	9,81	2,47	362,9	2,08	23,21
Tliq= 45/113	10	50	1261,3	4308	1085,5	3,17	10,83	2,73	397,6	2,20	28,30
[°C / °F]	-35	-31	93,5	319	80,5	0,75	2,56	0,65	124,6	1,40	2,23
cond. pressure	-25	-13	210,5	719	181,1	1,12	3,83	0,96	187,9	1,51	5,03
pc= 55/131	-15	5	368,9	1260	317,5	1,45	4,94	1,24	255,0	1,69	8,88
return gas temp	-10	14	471,1	1609	405,5	1,62	5,54	1,40	290,4	1,81	11,39
RGT= 32/90	0	32	736,6	2516	633,9	2,02	6,89	1,74	365,3	2,08	18,02
liquid temp	5	41	905,7	3093	779,5	2,24	7,64	1,92	405,1	2,24	22,32
Tliq= 55/131	10	50	1103,2	3768	949,4	2,47	8,44	2,13	446,6	2,41	27,42

Model				
Designation	NLE10MF.2	220-240V/50Hz	Conf. 2	Sales code: 105G6187

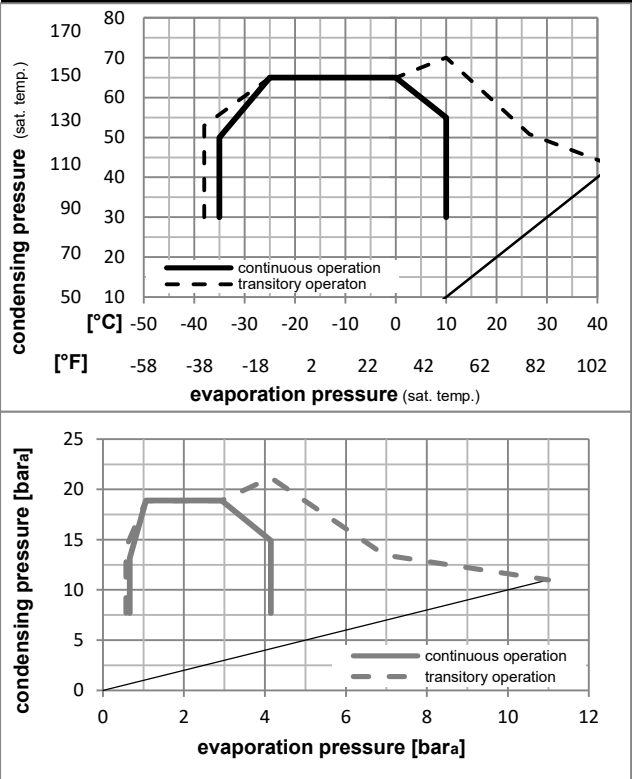
Configuration		Electrical accessories / wiring diagram		
Motor configuration	eRSIR	RSIR		
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R134a			
Application	LBP+MBP			
Voltage range	198-254V			
Starting torque	LST			
Approvals	VDE			

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

Model

Designation **NLE10MF.2** **220-240V/50Hz** Conf. 2 Sales code: **105G6187**

Optimization + standard conditions

R134a, 220V/50Hz, eRSIR, fan 3m/s, VDE

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]	[W]	[A]	[kg/h]	P1	I	m	[W]	[A]	[kg/h]	P1	I	m	[W]	[A]	[kg/h]	P1	I	m	[W]	[A]	[kg/h]
[°C]	-23	54	32	32	289,0	987	248,7	1,45	4,95	1,25	199,4	1,54	5,61	ASHRAE LBP																
[°F]	-10	130	90	90																										
[°C]	-25	55	32	55	210,5	719	181,1	1,12	3,83	0,96	187,9	1,51	5,03	cecomaf LBP																
[°F]	-13	131	90	131																										
[°C]	-35	40	20	40	151,4	517	130,3	1,06	3,63	0,91	142,5	1,43	3,32	EN12900 LBP																
[°F]	-31	104	68	104																										
[°C]	-7	54	35	46	609,2	2081	524,3	1,94	6,64	1,67	313,4	1,89	13,29	ASHRAE MBP																
[°F]	20	130	95	115																										
[°C]	-10	55	32	55	471,1	1609	405,5	1,62	5,54	1,40	290,4	1,81	11,39	cecomaf MBP																
[°F]	14	131	90	131																										
[°C]	-10	45	20	45	535,9	1830	461,2	1,99	6,79	1,71	269,6	1,75	12,54	EN12900 MBP																
[°F]	14	113	68	113																										

Performance tables

R134a, 220V/50Hz, eRSIR, fan 3m/s, VDE

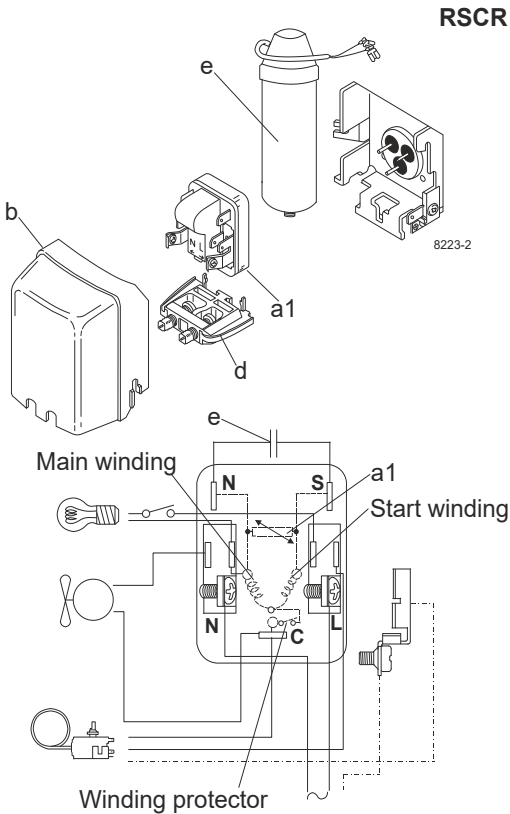
	pe		Cooling capacity			COP		EER		P1		I		m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	[kg/h]
[°C / °F]	-35	-31	134,3	459	115,5	0,94	3,21	0,81	143,0	1,43	2,90				
cond. pressure	-25	-13	262,5	897	225,9	1,38	4,72	1,19	190,0	1,52	5,69				
pc= 45/113	-15	5	440,7	1505	379,3	1,82	6,23	1,57	241,7	1,66	9,61				
return gas temp.	-10	14	556,0	1899	478,5	2,06	7,04	1,78	269,6	1,75	12,17				
RGT= 32/90	0	32	853,8	2916	734,8	2,59	8,84	2,23	330,0	1,96	18,88				
liquid temp	5	41	1042,4	3560	897,1	2,87	9,81	2,47	362,9	2,08	23,21				
Tliq= 45/113	10	50	1261,3	4308	1085,5	3,17	10,83	2,73	397,6	2,20	28,30				
[°C / °F]	-35	-31	93,5	319	80,5	0,75	2,56	0,65	124,6	1,40	2,23				
cond. pressure	-25	-13	210,5	719	181,1	1,12	3,83	0,96	187,9	1,51	5,03				
pc= 55/131	-15	5	368,9	1260	317,5	1,45	4,94	1,24	255,0	1,69	8,88				
return gas temp	-10	14	471,1	1609	405,5	1,62	5,54	1,40	290,4	1,81	11,39				
RGT= 32/90	0	32	736,6	2516	633,9	2,02	6,89	1,74	365,3	2,08	18,02				
liquid temp	5	41	905,7	3093	779,5	2,24	7,64	1,92	405,1	2,24	22,32				
Tliq= 55/131	10	50	1103,2	3768	949,4	2,47	8,44	2,13	446,6	2,41	27,42				

Model				
Designation	NLE10MF.2	220-240V/50Hz	Conf. 3	Sales code: 105G6187

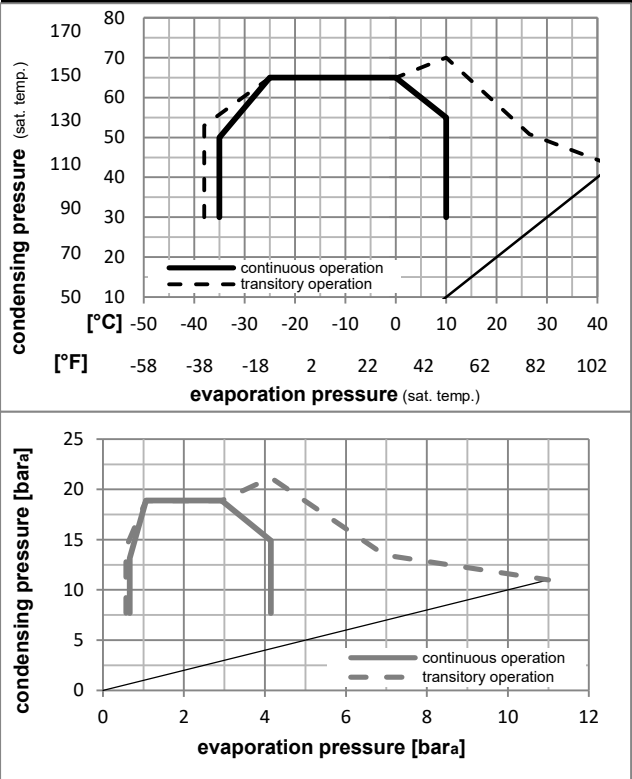
Configuration		Electrical accessories / wiring diagram		
Motor configuration	eRSCR	RSCR		
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R134a			
Application	LBP+MBP			
Voltage range	198-254V			
Starting torque	LST			
Approvals	VDE			

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
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

Model

Designation **NLE10MF.2** **220-240V/50Hz** Conf. 3 Sales code: **105G6187**

Optimization + standard conditions

R134a, 220V/50Hz, eRSCR, fan 3m/s, VDE

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]					-23	54	32	32	288,7					986					248,4					1,53					5,21					1,31					189,3					1,46					5,61					ASHRAE LBP																								
[°F]					-10	130	90	90																																																																						
[°C]					-25	55	32	55	210,2					718					180,9					1,18					4,03					1,01					178,3					1,43					5,03					cecomaf LBP																								
[°F]					-13	131	90	131																																																																						
[°C]					-35	40	20	40	151,2					517					130,2					1,12					3,82					0,96					135,2					1,36					3,32					EN12900 LBP																								
[°F]					-31	104	68	104																																																																						
[°C]					-7	54	35	46	608,5					2078					523,7					2,05					6,99					1,76					297,5					1,79					13,28					ASHRAE MBP																								
[°F]					20	130	95	115																																																																						
[°C]					-10	55	32	55	470,6					1607					405,0					1,71					5,83					1,47					275,6					1,71					11,38					cecomaf MBP																								
[°F]					14	131	90	131																																																																						
[°C]					-10	45	20	45	535,3					1828					460,7					2,09					7,15					1,80					255,8					1,66					12,53					EN12900 MBP																								
[°F]					14	113	68	113																																																																						

Performance tables

R134a, 220V/50Hz, eRSCR, fan 3m/s, 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]	-35	-31	134,1	458	115,4	0,99	3,38	0,85	135,7	1,36	2,89
cond. pressure	-25	-13	262,2	896	225,7	1,45	4,97	1,25	180,3	1,44	5,68
pc= 45/113	-15	5	440,2	1503	378,9	1,92	6,55	1,65	229,4	1,57	9,60
return gas temp.	-10	14	555,4	1897	478,0	2,17	7,41	1,87	255,8	1,66	12,15
RGT= 32/90	0	32	852,9	2913	734,0	2,72	9,30	2,34	313,2	1,86	18,86
liquid temp	5	41	1041,2	3556	896,1	3,02	10,33	2,60	344,4	1,97	23,18
Tliq= 45/113	10	50	1259,9	4303	1084,3	3,34	11,40	2,87	377,3	2,09	28,27
[°C / °F]	-35	-31	93,4	319	80,4	0,79	2,70	0,68	118,3	1,33	2,22
cond. pressure	-25	-13	210,2	718	180,9	1,18	4,03	1,01	178,3	1,43	5,03
pc= 55/131	-15	5	368,5	1258	317,1	1,52	5,20	1,31	242,0	1,60	8,87
return gas temp	-10	14	470,6	1607	405,0	1,71	5,83	1,47	275,6	1,71	11,38
RGT= 32/90	0	32	735,8	2513	633,2	2,12	7,25	1,83	346,7	1,97	18,00
liquid temp	5	41	904,8	3090	778,6	2,35	8,04	2,03	384,5	2,12	22,29
Tliq= 55/131	10	50	1102,0	3764	948,4	2,60	8,88	2,24	423,9	2,28	27,39

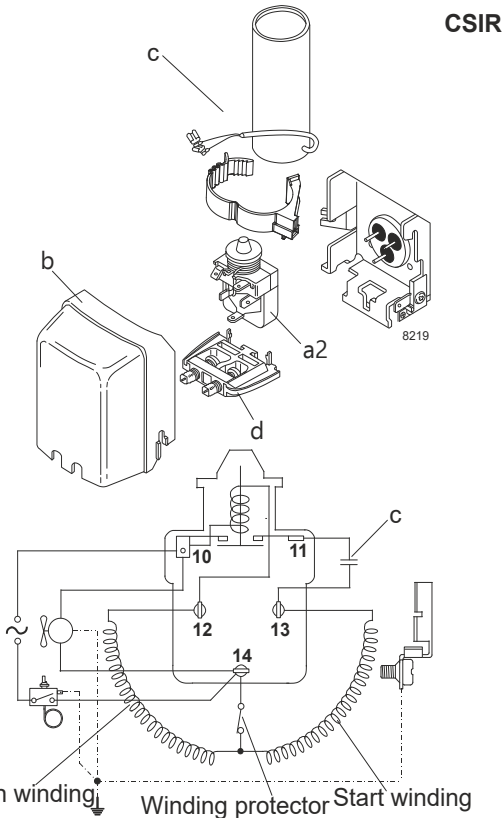
Model

Designation	NLE10MF.2	220-240V/50Hz	Conf. 4	Sales code:	105G6187
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Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R513A
Application	LBP+MBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE

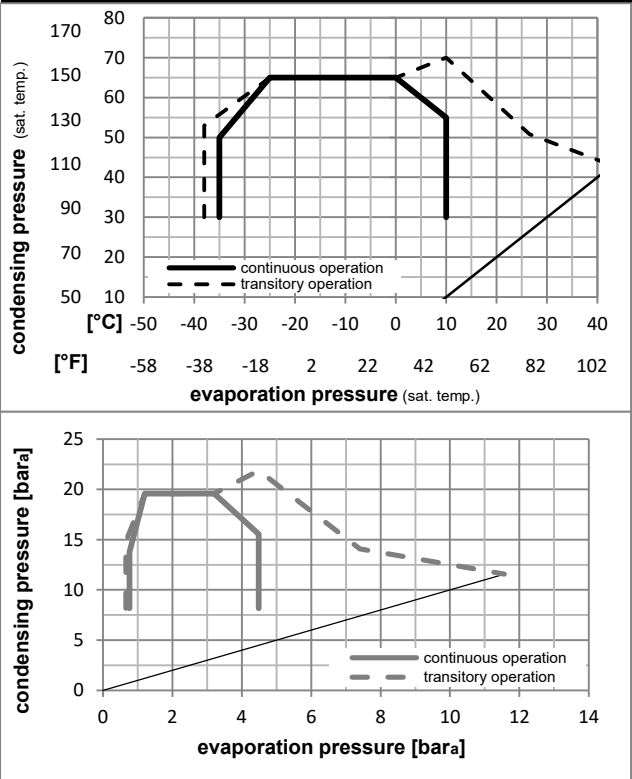
Electrical accessories / wiring diagram



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	assy. relay	117U6002
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 **NLE10MF.2** **220-240V/50Hz** Conf. 4 Sales code: **105G6187**

Optimization + standard conditions

R513A, 220V/50Hz, CSIR, fan 3m/s, VDE

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]					-23					54					32					32					321,9					1099					277,0					1,49					5,08					1,28					216,5					1,63					6,93					ASHRAE LBP																													
[°F]					-10					130					90					90																																																																															
[°C]					-25					55					32					55					228,4					780					196,6					1,12					3,81					0,96					204,6					1,60					6,25					cecomaf LBP																													
[°F]					-13					131					90					131																																																																															
[°C]					-35					40					20					40					170,8					583					147,0					1,09					3,73					0,94					156,2					1,46					4,22					EN12900 LBP																													
[°F]					-31					104					68					104																																																																															
[°C]					-7					54					35					46					640,5					2187					551,2					1,92					6,57					1,66					332,9					1,97					15,69					ASHRAE MBP																													
[°F]					20					130					95					115																																																																															
[°C]					-10					55					32					55					490,0					1673					421,7					1,58					5,40					1,36					309,6					1,90					13,55					cecomaf MBP																													
[°F]					14					131					90					131																																																																															
[°C]					-10					45					20					45					561,0					1916					482,8					1,96					6,68					1,68					286,6					1,83					14,87					EN12900 MBP																													
[°F]					14					113					68					113																																																																															

Performance tables

R513A, 220V/50Hz, CSIR, fan 3m/s, 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]	-35	-31	153,1	523	131,7	0,97	3,32	0,84	157,5	1,46	3,72		
cond. pressure	-25	-13	287,3	981	247,2	1,39	4,76	1,20	206,0	1,60	7,00		
pc= 45/113	-15	5	469,8	1605	404,3	1,82	6,21	1,56	258,5	1,75	11,51		
return gas temp.	-10	14	586,6	2003	504,8	2,05	6,99	1,76	286,6	1,83	14,42		
RGT= 32/90	0	32	885,6	3025	762,2	2,55	8,71	2,19	347,4	2,01	21,97		
liquid temp	5	41	1073,8	3667	924,1	2,82	9,64	2,43	380,3	2,11	26,78		
Tliq= 45/113	10	50	1291,6	4411	1111,5	3,11	10,63	2,68	415,0	2,21	32,43		
[°C / °F]	-35	-31	107,2	366	92,3	0,77	2,64	0,66	138,8	1,41	2,92		
cond. pressure	-25	-13	228,4	780	196,6	1,12	3,81	0,96	204,6	1,60	6,25		
pc= 55/131	-15	5	388,2	1326	334,1	1,42	4,85	1,22	273,6	1,80	10,69		
return gas temp	-10	14	490,0	1673	421,7	1,58	5,40	1,36	309,6	1,90	13,55		
RGT= 32/90	0	32	751,6	2567	646,9	1,95	6,66	1,68	385,4	2,12	20,99		
liquid temp	5	41	917,4	3133	789,6	2,16	7,36	1,86	425,5	2,24	25,78		
Tliq= 55/131	10	50	1110,4	3792	955,7	2,38	8,12	2,05	467,2	2,36	31,44		