

Model

Designation	NF7MLX	220-240V/50Hz 1~ 208-230V/60Hz 1~	Sales code:	105F3727
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R404A, R507, R452A
Oil viscosity	32cST	Displacement	7,27cm ³ / 0,44cu.in
Oil quantity	294cm ³ / 10fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2310cm ³ / 78,1fl.oz		
Weight	10,5kg / 23,1lbs		
Motor protection	external		
Winding resistance main	4,5Ω (at 25°C)		
Winding resistance aux	12,8Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with NF7MLX

	Conf. 1	Conf. 2
Motorconfiguration	CSIR	CSIR
Power supply (nominal)	220-240V/50Hz	208-230V/60Hz
Number of phases	1	1
Voltage range	187-254V	187-254V
Approvals	VDE, UL	VDE, UL
Starting torque	HST	HST
Note	- / -	

Applications with NF7MLX

	Conf. 1	Conf. 2
Refrigerant	R404A	R404A
Application	MBP	MBP
System cooling	fan 3m/s	fan 3m/s
Hot gas defrost	- / -	- / -
Long interval pull down	OK	OK

Electrical data - Configurations with NF7MLX

	Conf. 1	Conf. 2
Starting device type	relay	relay
Run capacitor	- / -	- / -
Start capacitor	125μF	125μF
LRA (locked rotor amps / 4s)	20A	19,4A
RLA (rated load amps / 1s)	3,7A	3,24A
Cut in current	20A	19,4A
IP class	21	21

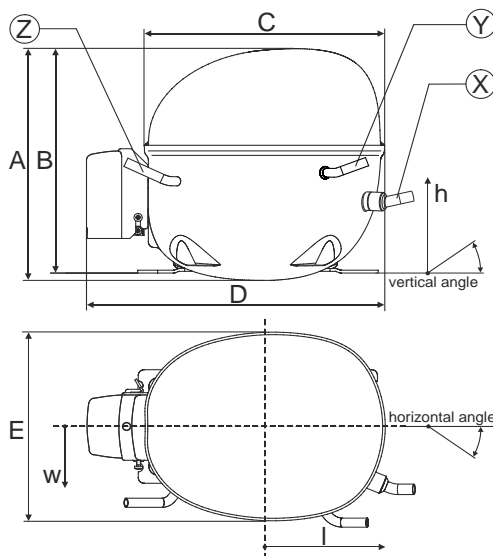
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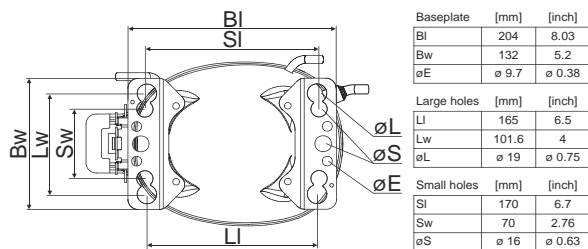
Compressor dimensions

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

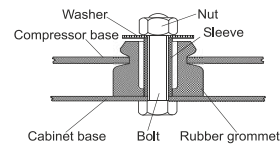
Connectors	Suction	Discharge	Process
	X	Y	Z
Diameter [mm]	øi 9,61-9,79	øi 6,41-6,59	øi 6,41-6,59
(i:inside, o:outside) [in]	øi 0,38-0,39	øi 0,25-0,26	øi 0,25-0,26
Material	copper	copper	copper
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	126/76/78	133/103/54	-107/94/72
	[in] 4,9/3/3,1	[in] 5,2/4/2,1	[in] -4,2/3,7/2,8
Straight tube l.	[mm]	12	12
	[in]	0,5	0,5



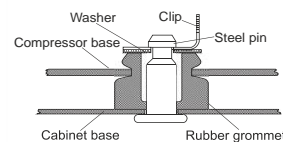
Compressor fixation



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	
Bolt joint ø1/4" ø19mm	118-1949	
Snap-on ø7,3 ø16mm	118-1947	118-1919

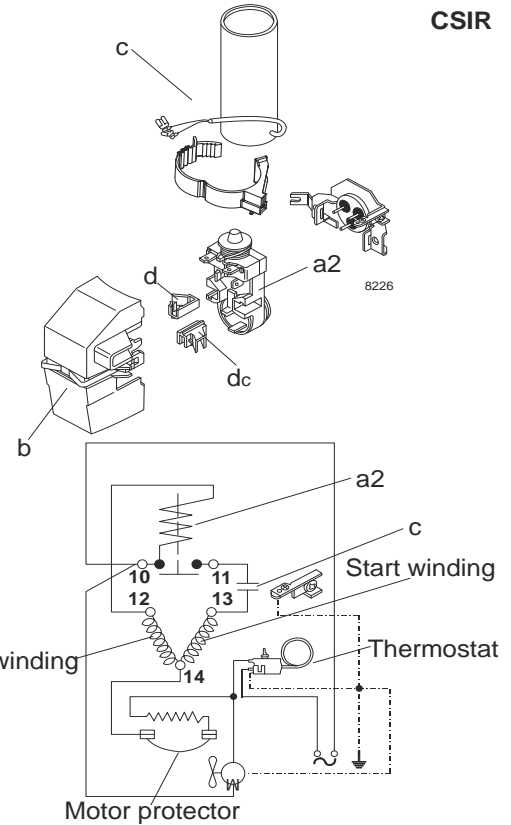
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Designation	NF7MLX	220-240V/50Hz	Conf. 1	Sales code:	105F3727
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R404A
Application	MBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE
	UL

Electrical accessories / wiring diagram

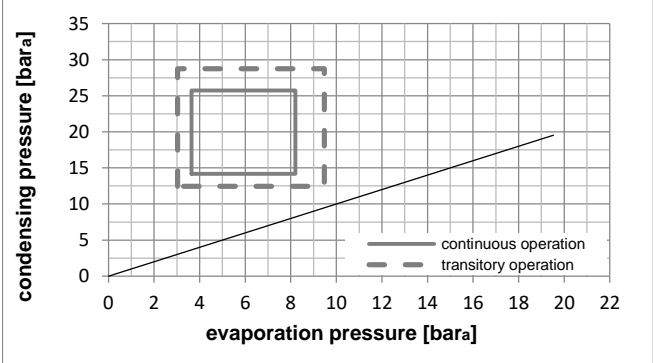
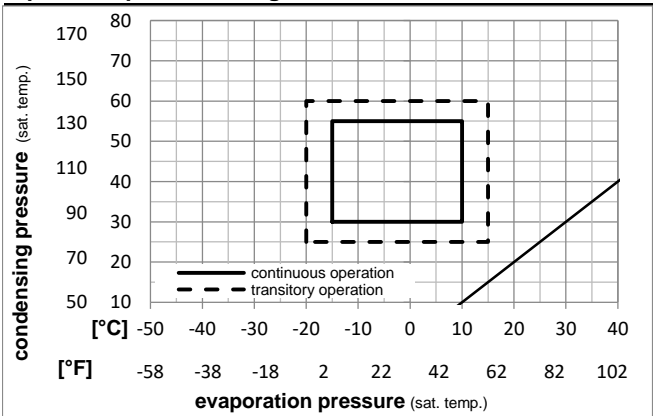


Ambient temperatures / system cooling

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	n/a	fan 3m/s	n/a
38°C / 100°F	n/a	fan 3m/s	n/a
43°C / 110°F	n/a	fan 3m/s	n/a

Operation pressure range



Components

a2	relay (protector: TI MRP56EN-6)	117U4139
c	start capacitor	117U5018
b	plastic cover	117U1021
d/dc	cord relief	117U0349
d/dc	cord relief	117U0349

Alternative components

a2	relay (protector: TI MRP56EN-6)	117U4139
c	start capacitor	117U5018
b	plastic cover	117U1021
d/dc	cord relief	117U0349
d	cord relief	117U0317

Model

Designation **NF7MLX 220-240V/50Hz** Conf. 1 Sales code: **105F3727**

Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			ASHRAE MBP				
	pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P1	I	Ref. mass flow m						
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]					
	-6,66	20	54,4	130	35	95	46,1	115	682,4	2330	587,3	1,49	5,08	1,28	458,7	3,24	18,78	
	-10	14	55	131	32	89,6	55	131	506,8	1731	436,2	1,16	3,97	1,00	436,5	3,17	16,22	cecomaf MBP
	-10	14	45	113	20	68	45	113	598,0	2042	514,7	1,47	5,04	1,27	405,5	3,10	18,01	EN12900 MBP
	-6,66	20	48,9	120	18,3	65	48,9	120	622,8	2127	536,0	1,42	4,85	1,22	438,5	3,20	20,35	ARI540 MBP
	-10	14	45	113	32	89,6	45	113	634,7	2168	546,2	1,57	5,35	1,35	405,5	3,10	17,48	opt
	-25	-13	45	113	32	89,6	45	113	311,7	1065	268,3	1,02	3,50	0,88	304,4	2,84	8,41	opt

Performance tables

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

	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]	-15	5	511,1	1746	439,9	1,37	4,67	1,18	373,7	3,01	13,96
cond. pressure	-10	14	634,7	2168	546,2	1,57	5,35	1,35	405,5	3,10	17,48
pc= 45/113	-6,7	20	726,3	2480	625,1	1,71	5,83	1,47	425,4	3,17	20,12
return gas temp.	0	32	939,8	3209	808,8	2,03	6,93	1,75	462,8	3,29	26,42
RGT= 32/90	5	41	1125,4	3844	968,6	2,31	7,88	1,98	487,9	3,39	32,06
liquid temp	7,2	45	1214,9	4149	1045,5	2,44	8,33	2,10	498,2	3,43	34,84
Tliq= 45/113	10	50	1335,9	4562	1149,7	2,62	8,94	2,25	510,6	3,49	38,66
[°C / °F]	-15	5	403,5	1378	347,3	1,01	3,46	0,87	398,6	3,06	12,80
cond. pressure	-10	14	506,8	1731	436,2	1,16	3,97	1,00	436,5	3,17	16,22
pc= 55/131	-6,7	20	583,2	1992	501,9	1,27	4,32	1,09	460,6	3,25	18,80
return gas temp	0	32	760,9	2599	654,8	1,50	5,13	1,29	506,8	3,40	24,95
RGT= 32/90	5	41	915,8	3128	788,2	1,70	5,80	1,46	538,9	3,52	30,50
liquid temp	7,2	45	990,6	3383	852,5	1,79	6,13	1,54	552,3	3,58	33,24
Tliq= 55/131	10	50	1092,0	3730	939,8	1,92	6,56	1,65	568,7	3,65	37,04

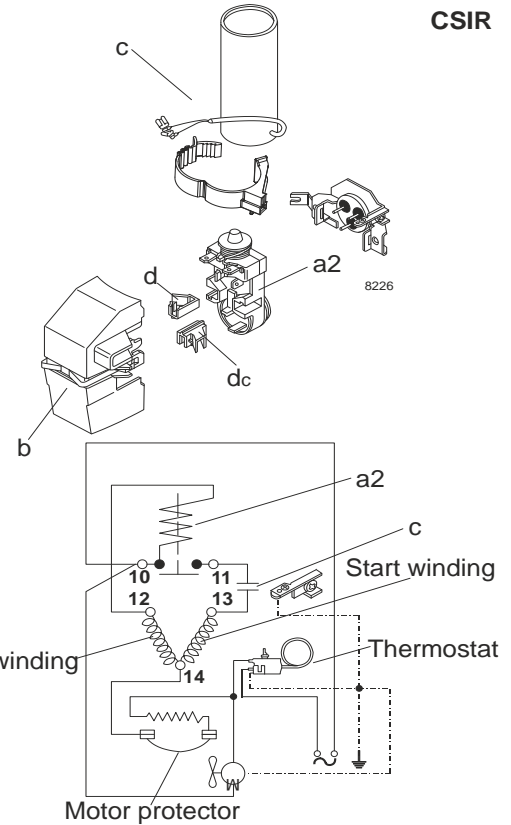
Model

Designation	NF7MLX	208-230V/60Hz	Conf. 2	Sales code:	105F3727
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R404A
Application	MBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE
	UL

Electrical accessories / wiring diagram

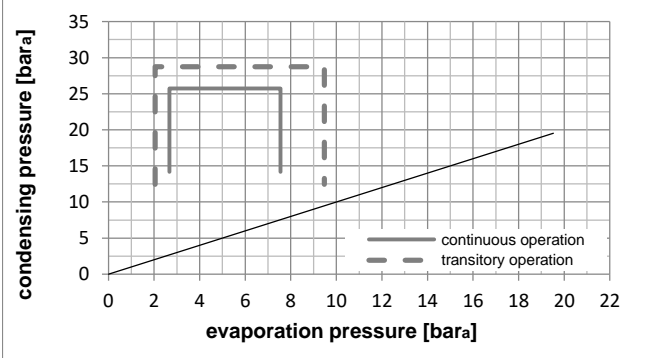
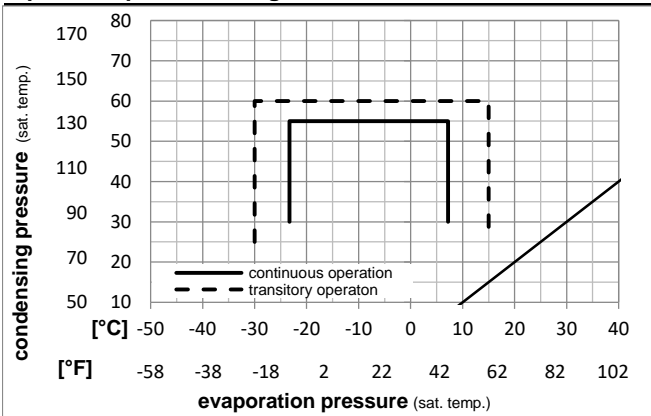


Ambient temperatures / system cooling

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	n/a	fan 3m/s	n/a
38°C / 100°F	n/a	fan 3m/s	n/a
43°C / 110°F	n/a	fan 3m/s	n/a

Operation pressure range



Components

a2	relay (protector: TI MRP56EN-6)	117U4139
c	start capacitor	117U5018
b	plastic cover	117U1021
d/dc	cord relief	117U0349
d/dc	cord relief	117U0349

Alternative components

a2	relay (protector: TI MRP56EN-6)	117U4139
c	start capacitor	117U5018
b	plastic cover	117U1021
d/dc	cord relief	117U0349
d	cord relief	117U0317

Model

Designation **NF7MLX 208-230V/60Hz** Conf. 2 Sales code: **105F3727**

Optimization + standard conditions

R404A, 230V/60Hz, CSIR, fan 3m/s, VDE, UL

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption					
					Return gas temp.						Current consumption					
					Liquid temp.						Ref. mass flow					
					Cooling capacity						COP				EER	
pe	pc	RGT	Tliq		[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m			
[°C]	[°C]		[°C]	[°C]							[W]	[A]	[kg/h]			
[°F]	-6,7	54,4	35	46,1	825,7	2820	710,6	1,56	5,33	1,34	529,1	3,02	22,72	ASHRAE MBP		
	20	130	95	115												
[°C]	-10	55	32	55	613,2	2094	527,8	1,24	4,23	1,06	495,6	2,90	19,63	cecmaf MBP		
[°F]	14	131	89,6	131												
[°C]	-10	45	20	45	723,6	2471	622,7	1,53	5,23	1,32	472,8	2,78	21,80	EN12900 MBP		
[°F]	14	113	68	113												
[°C]	-6,7	48,9	18,3	48,9	753,6	2574	648,6	1,46	4,99	1,26	515,5	2,95	24,63	ARI540 MBP		
[°F]	20	120	65	120												
[°C]	-10	45	32	45	768,0	2623	660,9	1,62	5,55	1,40	472,8	2,78	21,15	opt		
[°F]	14	113	89,6	113												
[°C]	-25	45	32	45	377,2	1288	324,6	1,09	3,74	0,94	344,9	2,32	10,17	opt		
[°F]	-13	113	89,6	113												

Performance tables

R404A, 230V/60Hz, CSIR, fan 3m/s, VDE, UL

	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]	-23	-10	413,4	1412	355,8	1,15	3,94	0,99	358,5	2,37	11,17
cond. pressure	-20	-4	489,0	1670	420,9	1,27	4,33	1,09	385,4	2,47	13,27
pc= 45/113	-15	5	618,5	2112	532,3	1,45	4,94	1,24	427,8	2,62	16,89
return gas temp.	-10	14	768,0	2623	660,9	1,62	5,55	1,40	472,8	2,78	21,15
RGT= 32/90	-5	23	940,0	3210	809,0	1,80	6,16	1,55	520,9	2,94	26,13
liquid temp	0	32	1137,1	3883	978,6	1,98	6,78	1,71	572,9	3,11	31,97
Tliq= 45/113	7,2	45	1470,0	5020	1265,1	2,24	7,65	1,93	655,8	3,35	42,15
[°C / °F]	-23	-10	314,5	1074	270,7	0,85	2,91	0,73	368,5	2,38	9,85
cond. pressure	-20	-4	379,1	1295	326,2	0,95	3,25	0,82	398,7	2,51	11,93
pc= 55/131	-15	5	488,2	1667	420,2	1,09	3,74	0,94	446,0	2,70	15,48
return gas temp	-10	14	613,2	2094	527,8	1,24	4,23	1,06	495,6	2,90	19,63
RGT= 32/90	-5	23	756,6	2584	651,1	1,38	4,71	1,19	548,2	3,10	24,49
liquid temp	0	32	920,7	3144	792,4	1,52	5,20	1,31	604,5	3,30	30,19
Tliq= 55/131	7,2	45	1198,6	4094	1031,6	1,73	5,91	1,49	693,1	3,60	40,23