Model
NF7MLX

Sales code:
105F3727

Compressor Data

Refrigerant(s)	**R404A / R452A**
Refr. charge - tech. limit	**400g / 14.11oz**
Weight	**10.50 kg / 23.15lbs**
Displacement	**7.27 cm3 / 0.44cu.in**
Compressors on pallet	**80**

General – Configurations With NF7MLX

–	**Conf. 1**	**Conf. 2**
Motor configuration	CSIR	CSIR
Power supply (nominal)	220-240 V/50 Hz	208-230 V/60 Hz
Number of phases	1	1
Voltage range	187-254 V	187-254 V
Approvals	VDE, UL	VDE, UL
Starting torque	HST	HST
Refrigerant	R404A	R404A
Application	MBP	MBP
Long interval pull down	OK	OK

Application Notes

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

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Compressor Design

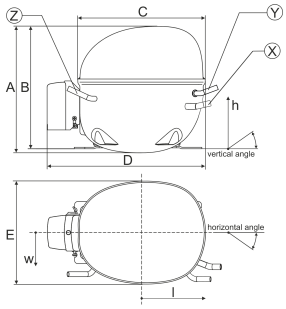
Oil type	**POE**	Winding resistance main	**4.6 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**12.8 Ohm**
Oil quantity	**300 / 10.14fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,310 cm3 / 78.11fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**external**		

Compressor Dimensions

Housing

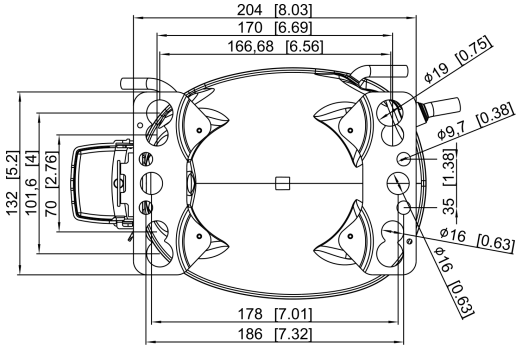
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



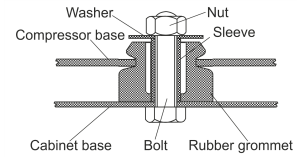
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 9.61–9.79 / 0.38–0.39in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in	-107/93.5/72 / -4.21/3.68/2.83in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

Mounting Accessories

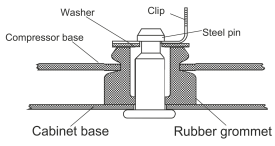


Dimensions in mm [in]

Bolt joint



Snap-on



	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

Model
NF7MLX Configuration 1

Sales code:
105F3727

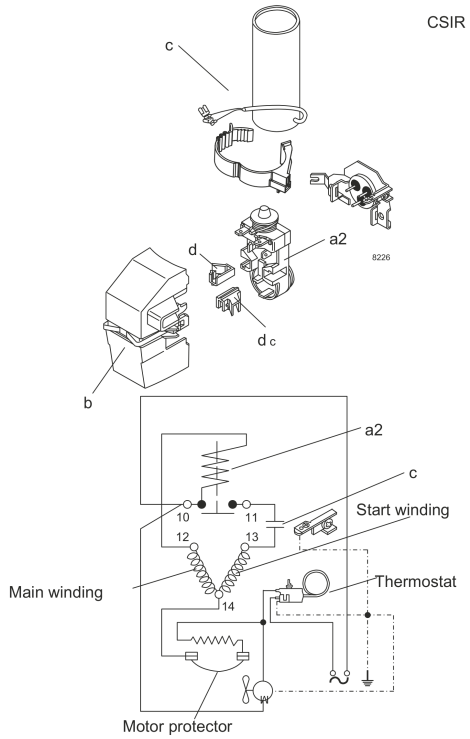
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R404A**
Application	**MBP**
Voltage range	**187-254 V**
Starting torque	**HST**
Approvals	**VDE, UL**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**125 µF**
LRA (locked rotor amps / 4s/ U(N))	**20 A**
RLA (rated load amps / 1s/ U(N))	**3.7 A**
Cut in current (U(N))	**20 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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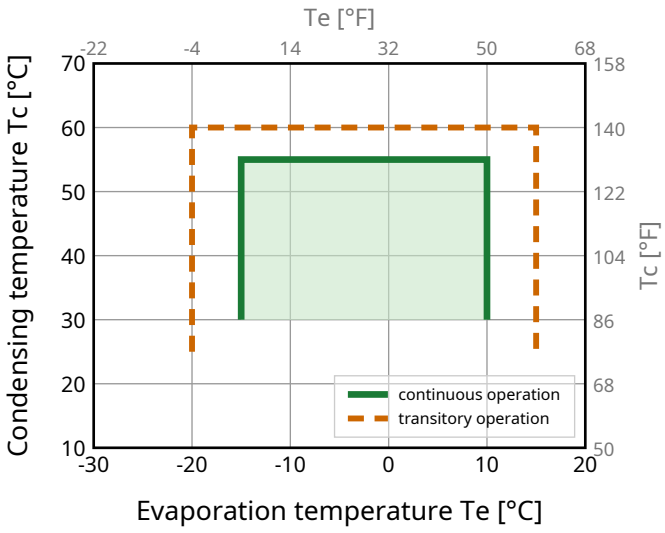
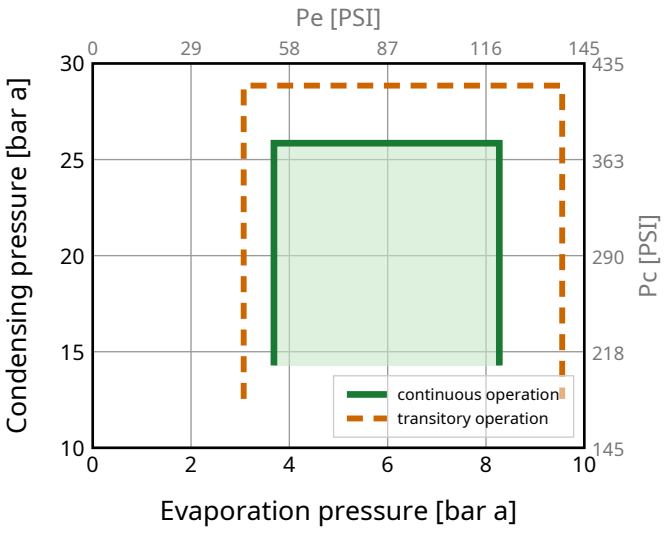
Components
a2 relay (protector: TI MRP56EN-6) 117U4139
c start capacitor 117U5018
b plastic cover + clamp 117U1021
d/dc cord relief 117U0349

Alternative components
a2 relay (protector: TI MRP56EN-6) 117U4139
d cord relief 117U0317

Operation Pressure Range





Model
NF7MLX Configuration 1

Sales code:
105F3727

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	**681**	2325	586	**1.49**	5.07	458	3.24	18.72	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**507**	1729	436	**1.16**	3.96	436	3.17	16.20	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**598**	2041	515	**1.48**	5.03	406	3.10	17.99	**EN12900 MBP**
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	**623**	2126	536	**1.42**	4.86	438	3.20	20.31	**ARI540 MBP**
-10 14	45 113	32 89.6	45 113	**635**	2166	546	**1.56**	5.34	406	3.10	17.45	**opt MBP 1**
-25 -13	45 113	32 89.6	45 113	**312**	1064	268	**1.02**	3.49	304	2.84	8.39	**opt MBP 2**

Performance Tables

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

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-15	5	**511**	1744	440	**1.37**	4.67	374	3.01	13.94
-10	14	**635**	2166	546	**1.56**	5.34	406	3.10	17.45
-5	23	**777**	2651	668	**1.78**	6.09	435	3.20	21.57
0	32	**940**	3207	808	**2.03**	6.93	463	3.29	26.39
5	41	**1125**	3840	968	**2.31**	7.87	488	3.39	32.03
10	50	**1336**	4558	1149	**2.62**	8.93	511	3.49	38.64

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-15	5	**404**	1377	347	**1.01**	3.45	399	3.06	12.77
-10	14	**507**	1729	436	**1.16**	3.96	436	3.17	16.20
-5	23	**625**	2134	538	**1.32**	4.51	473	3.29	20.21
0	32	**761**	2596	654	**1.50**	5.12	507	3.40	24.93
5	41	**916**	3125	788	**1.70**	5.80	539	3.52	30.48
10	50	**1092**	3726	939	**1.92**	6.55	569	3.65	37.03

Model
NF7MLX Configuration 2

Sales code:
105F3727

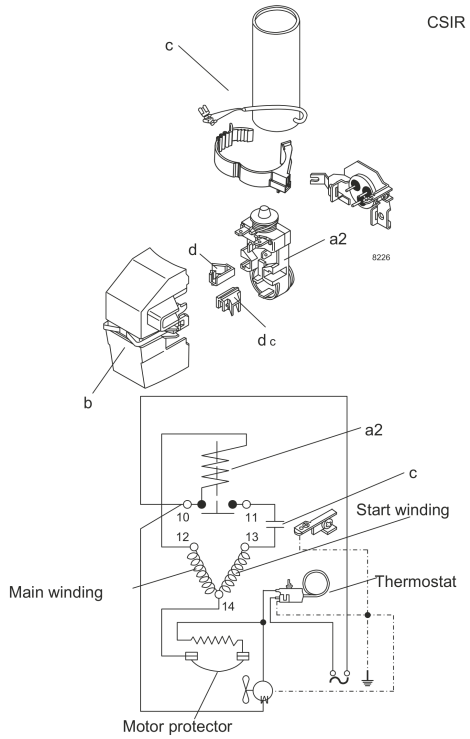
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R404A**
Application	**MBP**
Voltage range	**187-254 V**
Starting torque	**HST**
Approvals	**VDE, UL**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**125 µF**
LRA (locked rotor amps / 4s/ U(N))	**20 A**
RLA (rated load amps / 1s/ U(N))	**3.7 A**
Cut in current (U(N))	**20 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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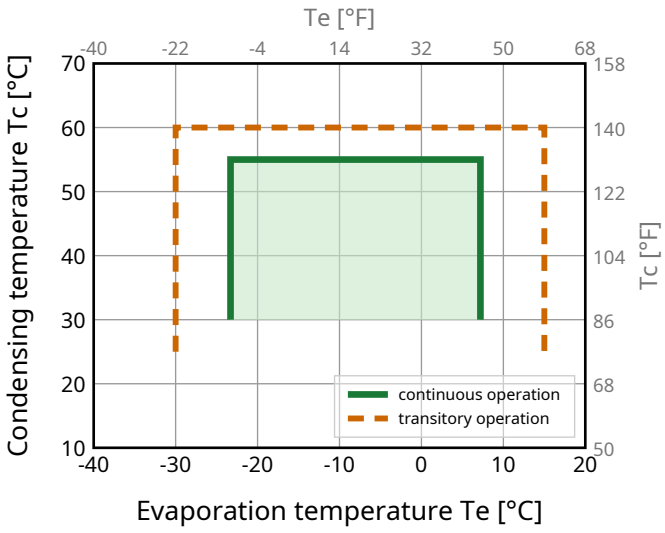
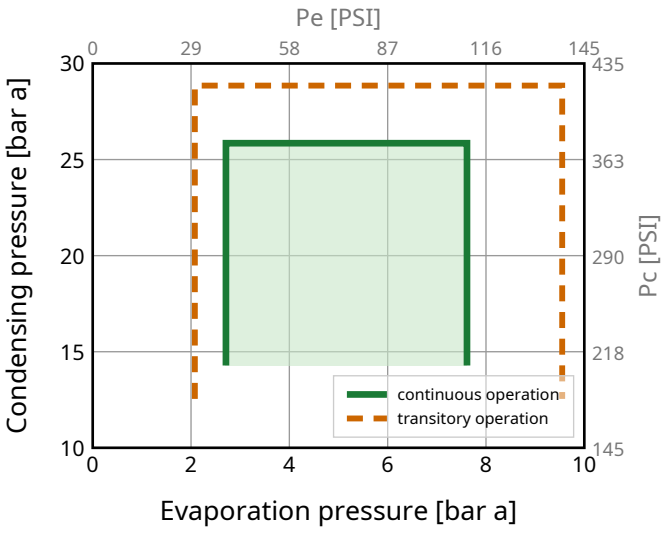
Components
a2 relay (protector: TI MRP56EN-6) 117U4139
c start capacitor 117U5018
b plastic cover + clamp 117U1021
d/dc cord relief 117U0349

Alternative components
a2 relay (protector: TI MRP56EN-6) 117U4139
d cord relief 117U0317

Operation Pressure Range





Model
NF7MLX Configuration 2

Sales code:
105F3727

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	**824**	2813	709	**1.56**	5.32	529	3.02	22.65	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**613**	2092	527	**1.24**	4.22	496	2.90	19.60	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**724**	2470	623	**1.53**	5.22	473	2.78	21.77	**EN12900 MBP**
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	**754**	2573	649	**1.46**	5.00	515	2.94	24.57	**ARI540 MBP**
-10 14	45 113	32 89.6	45 113	**768**	2620	660	**1.62**	5.54	473	2.78	21.11	**opt MBP 1**
-25 -13	45 113	32 89.6	45 113	**377**	1287	324	**1.09**	3.73	345	2.32	10.15	**opt MBP 2**

Performance Tables

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

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-23.3	-10	**413**	1411	356	**1.15**	3.93	358	2.37	11.15
-20	-4	**489**	1668	421	**1.27**	4.33	385	2.47	13.24
-15	5	**618**	2110	532	**1.45**	4.93	428	2.62	16.86
-10	14	**768**	2620	660	**1.62**	5.54	473	2.78	21.11
-5	23	**940**	3207	808	**1.80**	6.16	521	2.94	26.10
0	32	**1137**	3880	978	**1.99**	6.77	573	3.11	31.93
5	41	**1362**	4646	1171	**2.16**	7.38	629	3.28	38.76
7.2	45	**1470**	5016	1264	**2.24**	7.65	656	3.35	42.12

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-23.3	-10	**314**	1073	270	**0.85**	2.91	368	2.38	9.83
-20	-4	**379**	1293	326	**0.95**	3.24	399	2.51	11.90
-15	5	**488**	1666	420	**1.09**	3.74	446	2.70	15.46
-10	14	**613**	2092	527	**1.24**	4.22	496	2.90	19.60
-5	23	**757**	2582	651	**1.38**	4.71	548	3.10	24.46
0	32	**921**	3141	792	**1.52**	5.20	604	3.30	30.16
5	41	**1108**	3781	953	**1.67**	5.68	665	3.51	36.88
7.2	45	**1199**	4090	1031	**1.73**	5.90	693	3.60	40.21