Model
NF7FX

Sales code:
105G6743

Compressor Data

Refrigerant(s)	**R134a**
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 NF7FX

–	**Conf. 1**	**Conf. 2**
Motor configuration	CSIR	CSIR
Power supply (nominal)	220-230 V/50 Hz	208-230 V/60 Hz
Number of phases	1	1
Voltage range	198-242 V	198-242 V
Approvals	EAC, CCC	EAC, CCC
Starting torque	HST	HST
Refrigerant	R134a	R134a
Application	LBP+MBP	LBP+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

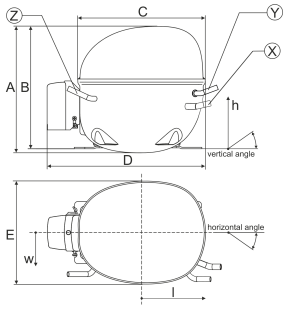
Oil type	**POE**	Winding resistance main	**6 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**12.6 Ohm**
Oil quantity	**268 / 9.06fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**external**		

Compressor Dimensions

Housing

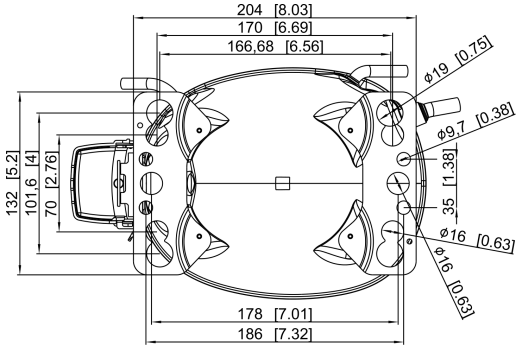
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



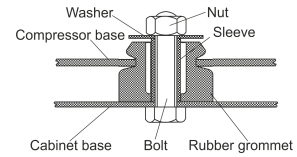
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in	-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

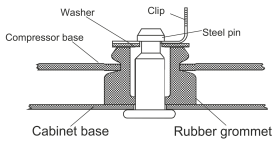


Dimensions in mm [in]

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
NF7FX Configuration 1

Sales code:
105G6743

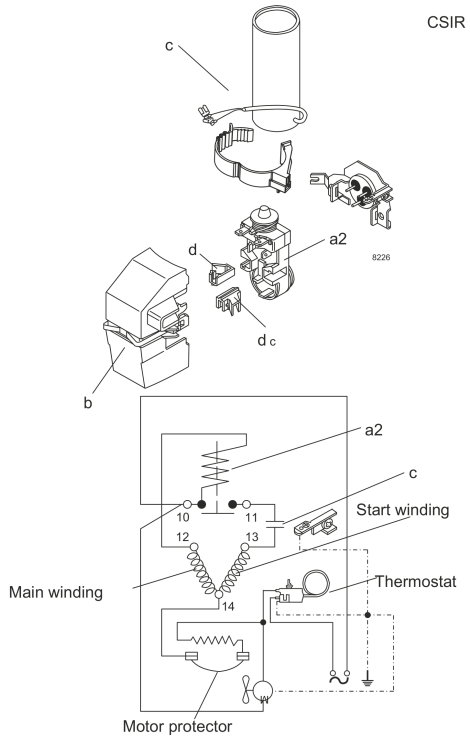
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-230 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**LBP+MBP**
Voltage range	**198-242 V**
Starting torque	**HST**
Approvals	**EAC, CCC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**125 µF**
LRA (locked rotor amps / 4s/ U(N))	**15.8 A**
RLA (rated load amps / 1s/ U(N))	**2.6 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
static

Electrical Accessories / Wiring Diagram



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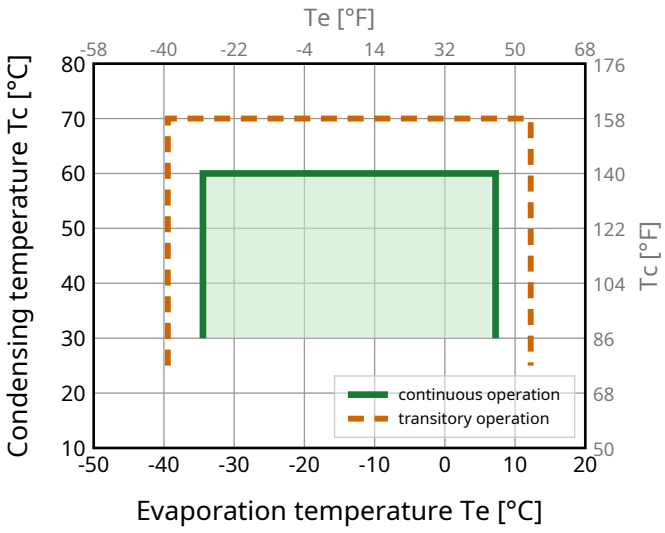
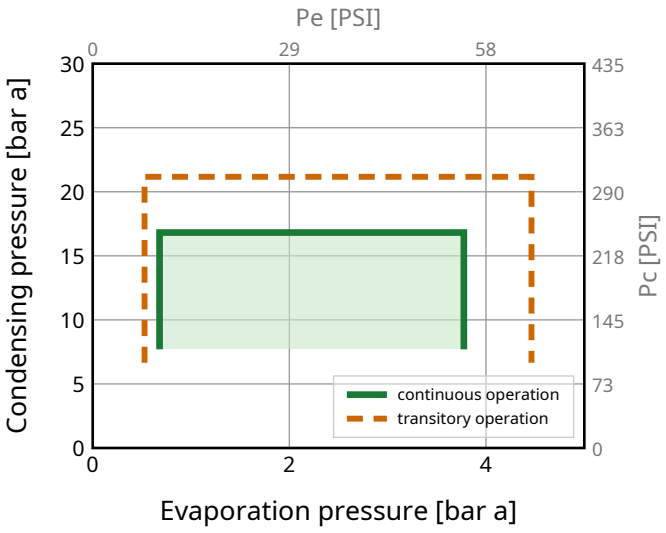
Components
a2 relay (protector: TI MRP59EN-6) 117U4140
c start capacitor 117U5018
b plastic cover 117U1023
d/dc cord relief 117U0349
d cord relief 117U0317

Operation Pressure Range





Model
NF7FX Configuration 1

Sales code:
105G6743

Standard Conditions

R134a, 220 V/50 Hz, CSIR, static

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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**205**	700	176	**1.11**	3.80	184	1.78	3.98	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**150**	513	129	**0.85**	2.91	176	1.76	3.59	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**104**	355	89	**0.80**	2.71	131	1.70	2.27	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**432**	1474	371	**1.66**	5.65	261	1.94	9.40	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**336**	1145	289	**1.36**	4.66	246	1.91	8.09	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**379**	1292	326	**1.62**	5.53	233	1.85	8.83	**EN12900 MBP**

Performance Tables

R134a, 220 V/50 Hz, CSIR, static

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]
-35	-31	**98**	333	84	**0.74**	2.52	132	1.71	2.10
-30	-22	**134**	457	115	**0.88**	2.99	153	1.74	2.89
-20	-4	**239**	815	205	**1.23**	4.20	194	1.79	5.18
-10	14	**392**	1339	337	**1.68**	5.73	233	1.85	8.57
0	32	**602**	2053	517	**2.23**	7.59	270	1.92	13.27
7.2	45	**791**	2699	680	**2.68**	9.14	295	1.98	17.62

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

-35	-31	**79**	269	68	**0.60**	2.05	131	1.70	1.87
-30	-22	**110**	375	95	**0.72**	2.45	153	1.73	2.62
-20	-4	**201**	685	173	**1.01**	3.44	199	1.81	4.81
-10	14	**336**	1145	289	**1.36**	4.66	246	1.91	8.09
0	32	**522**	1779	448	**1.78**	6.07	293	2.03	12.72
7.2	45	**691**	2358	594	**2.11**	7.21	327	2.14	17.03

Model
NF7FX Configuration 2

Sales code:
105G6743

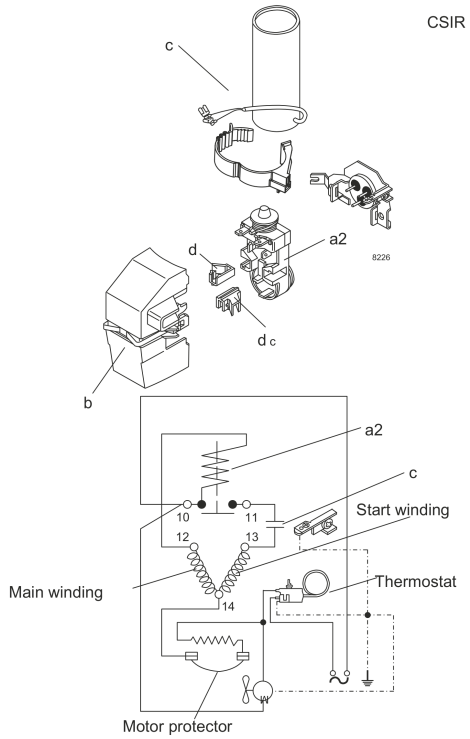
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R134a**
Application	**LBP+MBP**
Voltage range	**198-242 V**
Starting torque	**HST**
Approvals	**EAC, CCC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**125 µF**
RLA (rated load amps / 1s/ U(N))	**-/-A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 1,5m/s

Electrical Accessories / Wiring Diagram



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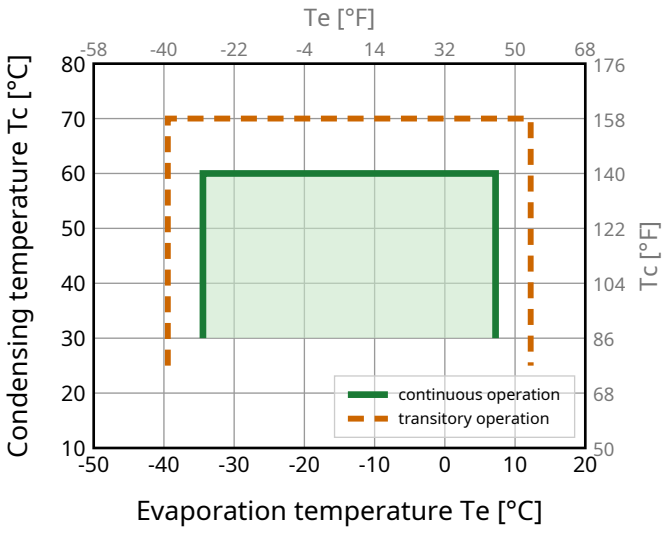
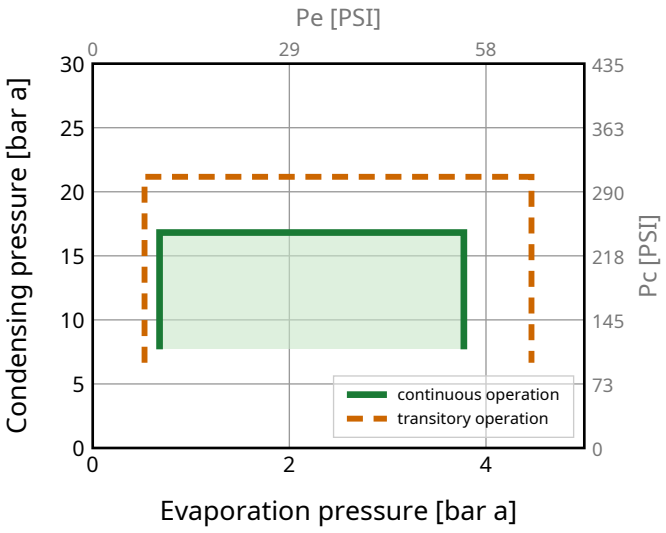
Components
a2 relay (protector: TI MRP59EN-6) 117U4140
c start capacitor 117U5018
b plastic cover 117U1023
d/dc cord relief 117U0349
d cord relief 117U0317

Operation Pressure Range





Model
NF7FX Configuration 2

Sales code:
105G6743

Standard Conditions

R134a, 220 V/60 Hz, CSIR, fan 1,5m/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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**253**	864	218	**1.18**	4.02	215	1.66	4.91	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**187**	637	161	**0.91**	3.11	205	1.63	4.46	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**123**	419	106	**0.88**	2.99	140	1.48	2.69	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**502**	1714	432	**1.63**	5.55	309	1.94	10.94	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**393**	1342	338	**1.35**	4.61	291	1.89	9.48	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**444**	1516	382	**1.61**	5.49	276	1.83	10.36	**EN12900 MBP**

Performance Tables

R134a, 220 V/60 Hz, CSIR, fan 1,5m/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]
-35	-31	**115**	392	99	**0.81**	2.76	142	1.49	2.47
-30	-22	**166**	565	143	**0.96**	3.27	173	1.56	3.58
-20	-4	**290**	990	249	**1.27**	4.33	228	1.70	6.29
-10	14	**460**	1571	396	**1.67**	5.68	276	1.83	10.05
0	32	**695**	2371	598	**2.17**	7.41	320	1.96	15.33
7.2	45	**914**	3119	786	**2.61**	8.90	351	2.06	20.37

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

-35	-31	**92**	315	79	**0.66**	2.24	141	1.48	2.19
-30	-22	**137**	467	118	**0.79**	2.69	174	1.55	3.25
-20	-4	**245**	835	210	**1.04**	3.56	234	1.71	5.85
-10	14	**393**	1342	338	**1.35**	4.61	291	1.89	9.48
0	32	**602**	2053	517	**1.73**	5.92	347	2.08	14.67
7.2	45	**799**	2726	687	**2.06**	7.02	388	2.23	19.69