Single
Packs

Single Pack NF10FX 220-240V 50Hz / 208-230V 60Hz CSIR

Single pack code number: **195B4479**

Position	Title	Code	Amount
1	Compressor NF10FX	105G6846	1
2	Starting relay (overload protector MRP56EN-6)	117U4139	1
3	Starting capacitor (125µF 220V, 6.3mm)	117U5018	1
4	Cord relief	117U0317	1
5	Cord relief	117U0349	1
6	Cover	117U1021	1
7	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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Model
NF10FX

Sales code:
105G6846

Compressor Data

Refrigerant(s)	**R134a / R513A**
Refr. charge - tech. limit	**460g / 16.23oz**
Weight	**10.50 kg / 23.15lbs**
Displacement	**10.09 cm3 / 0.62cu.in**
Compressors on pallet	**80**

General – Configurations With NF10FX

–	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSIR	CSIR	CSIR	CSIR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz	208-230 V/60 Hz	208-230 V/60 Hz
Number of phases	1	1	1	1
Voltage range	198-242 V	198-242 V	198-242 V	198-242 V
Approvals	UL, VDE, CCC, EAC	UL, VDE, CCC, EAC	UL, VDE, CCC, EAC	UL, VDE, CCC, EAC
Starting torque	HST	HST	HST	HST
Refrigerant	R134a	R513A	R134a	R513A
Application	LBP+MBP	LBP+MBP	LBP+MBP	LBP+MBP
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

Application Notes

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

Model
NF10FX

Sales code:
105G6846

Compressor Design

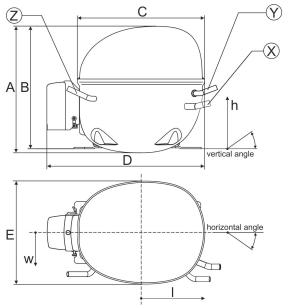
Oil type	**POE**	Winding resistance main	**4.6 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**12.8 Ohm**
Oil quantity	**298 / 10.08fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**110°C / 230°F**
Motor protection	**external**		

Compressor Dimensions

Housing

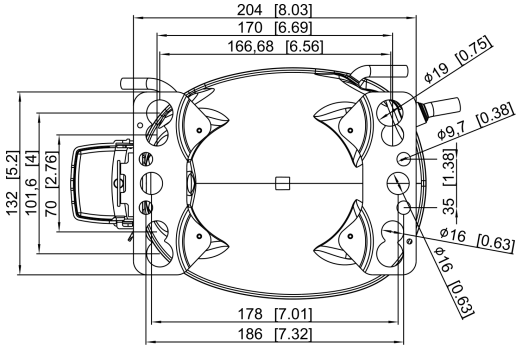
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



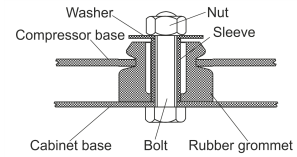
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in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

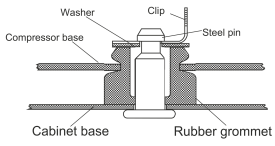


Dimensions in mm [in]

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
NF10FX Configuration 1

Sales code:
105G6846

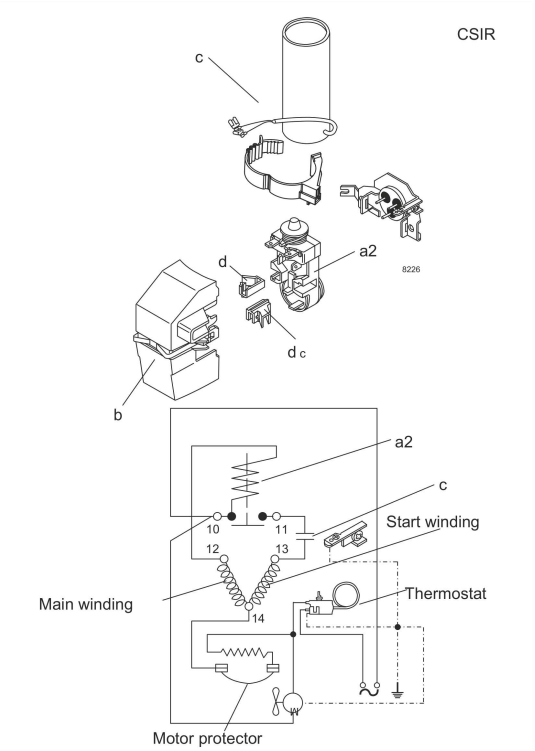
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**LBP+MBP**
Voltage range	**198-242 V**
Starting torque	**HST**
Approvals	**UL, VDE, CCC, EAC**
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 - 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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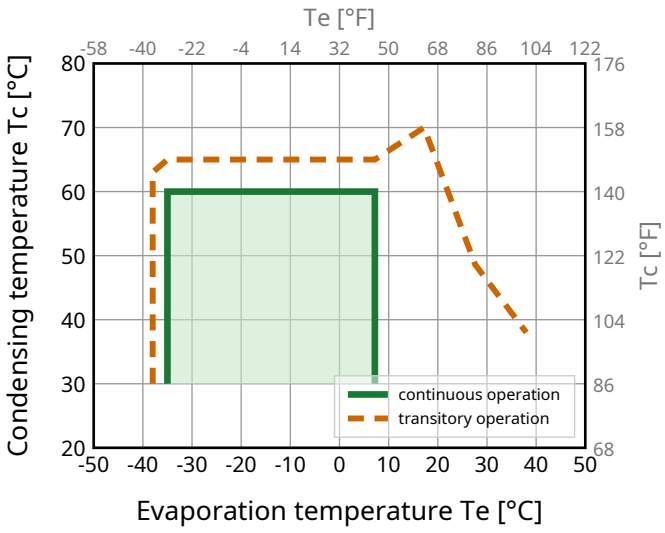
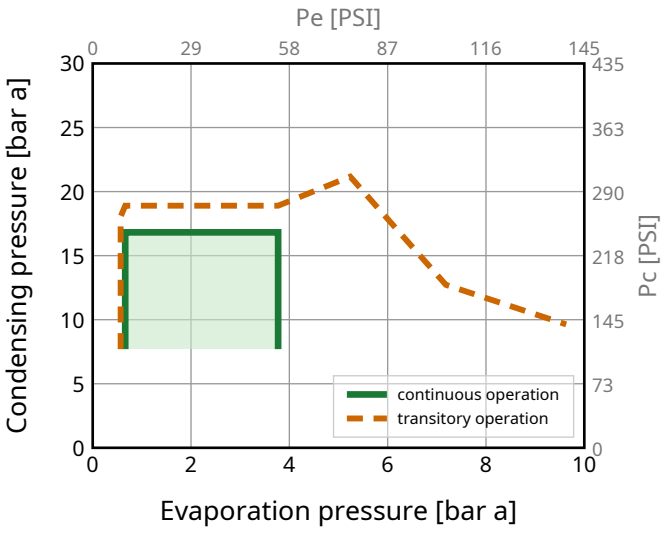
Components
a2 relay (protector: TI MRP56EN-6) 117U4139
c start capacitor 117U5018
b plastic cover + clamp 117U1021
d/dc cord relief 117U0349

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

Operation Pressure Range





Model Sales code:

NF10FX Configuration 1 **105G6846**

Standard Conditions

R134a, 220 V/50 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	**267**	910	229	**0.94**	3.21	283	2.75	5.17	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**196**	670	169	**0.72**	2.47	271	2.73	4.68	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**138**	471	119	**0.66**	2.23	211	2.67	3.02	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**555**	1895	478	**1.42**	4.85	391	2.96	12.09	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**432**	1476	372	**1.17**	4.01	368	2.91	10.43	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**480**	1637	413	**1.34**	4.58	357	2.85	11.19	**EN12900 MBP**

Performance Tables

R134a, 220 V/50 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	**128**	438	110	**0.60**	2.05	214	2.67	2.77
-30	-22	**174**	594	150	**0.72**	2.46	242	2.70	3.76
-20	-4	**305**	1039	262	**1.02**	3.48	299	2.77	6.60
-10	14	**497**	1696	427	**1.39**	4.75	357	2.85	10.85
0	32	**764**	2607	657	**1.85**	6.30	414	2.96	16.86
7.2	45	**1010**	3446	869	**2.23**	7.62	452	3.05	22.50

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

-35	-31	**104**	353	89	**0.49**	1.67	211	2.65	2.46
-30	-22	**144**	493	124	**0.60**	2.05	240	2.68	3.44
-20	-4	**261**	889	224	**0.86**	2.93	303	2.78	6.23
-10	14	**432**	1476	372	**1.17**	4.01	368	2.91	10.43
0	32	**673**	2296	579	**1.55**	5.29	434	3.07	16.41
7.2	45	**895**	3055	770	**1.86**	6.36	481	3.21	22.07

Model
NF10FX Configuration 2

Sales code:
105G6846

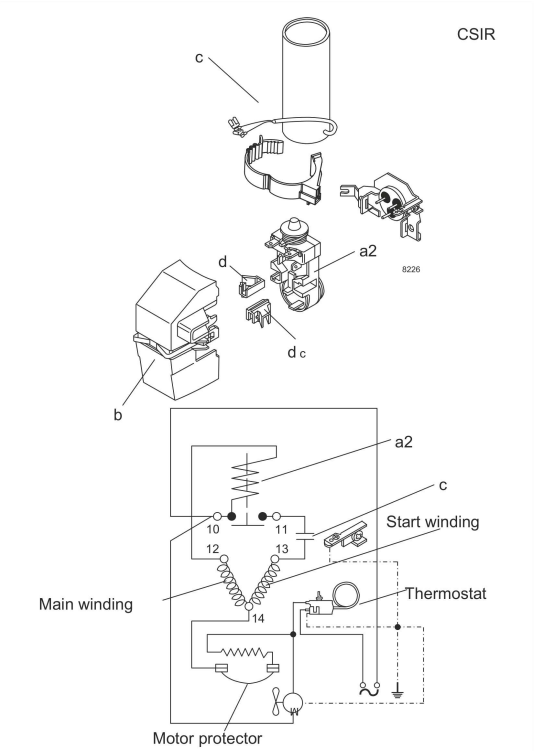
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R513A**
Application	**LBP+MBP**
Voltage range	**198-242 V**
Starting torque	**HST**
Approvals	**UL, VDE, CCC, EAC**
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 - 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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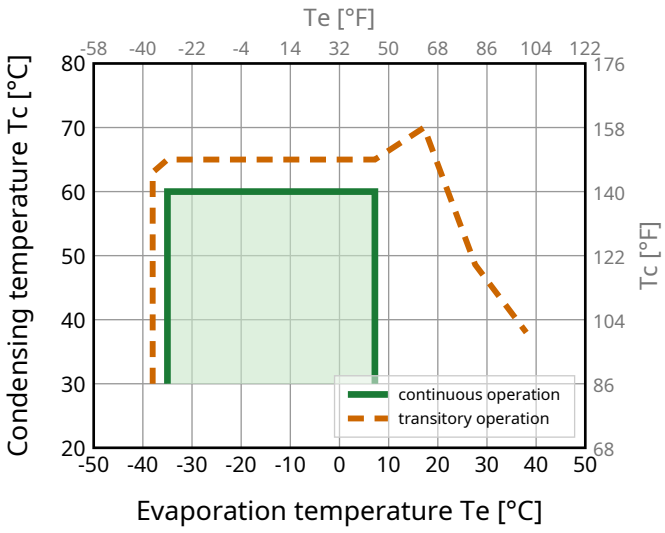
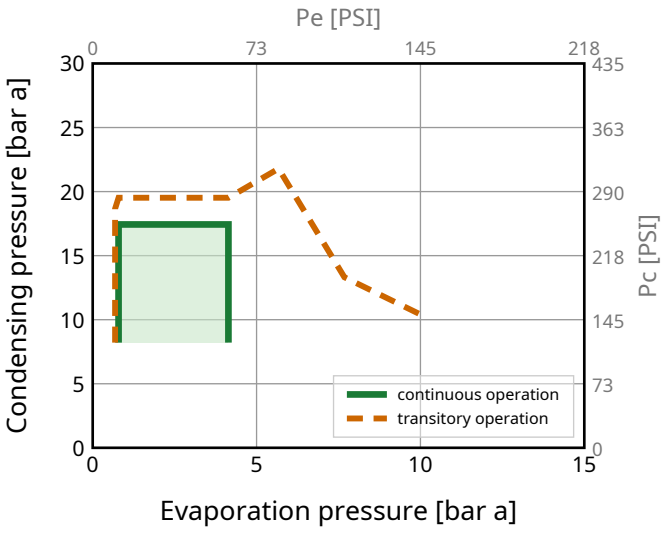
Components
a2 relay (protector: TI MRP56EN-6) 117U4139
c start capacitor 117U5018
b plastic cover + clamp 117U1021
d/dc cord relief 117U0349

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

Operation Pressure Range





Model Sales code:

NF10FX Configuration 2 **105G6846**

Standard Conditions

R513A, 220 V/50 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	**293**	1000	252	**0.95**	3.23	309	2.77	6.42	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**211**	720	181	**0.71**	2.42	298	2.75	5.84	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**153**	521	131	**0.65**	2.22	234	2.62	3.84	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**581**	1983	500	**1.40**	4.77	416	2.98	14.49	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**448**	1528	385	**1.14**	3.88	394	2.94	12.56	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**498**	1700	428	**1.31**	4.46	381	2.91	13.49	**EN12900 MBP**

Performance Tables

R513A, 220 V/50 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	**144**	491	124	**0.60**	2.05	239	2.63	3.54
-30	-22	**192**	655	165	**0.72**	2.46	266	2.68	4.73
-20	-4	**327**	1115	281	**1.01**	3.45	324	2.80	8.11
-10	14	**523**	1783	450	**1.37**	4.68	381	2.91	13.08
0	32	**791**	2700	681	**1.81**	6.18	437	3.02	20.05
7.2	45	**1036**	3536	891	**2.19**	7.46	474	3.10	26.55

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

-35	-31	**116**	396	100	**0.49**	1.66	238	2.63	3.19
-30	-22	**158**	540	136	**0.59**	2.02	267	2.69	4.37
-20	-4	**276**	941	237	**0.84**	2.86	329	2.81	7.67
-10	14	**448**	1528	385	**1.14**	3.88	394	2.94	12.56
0	32	**685**	2338	589	**1.49**	5.09	459	3.07	19.48
7.2	45	**903**	3081	777	**1.79**	6.11	504	3.16	26.01

Model
NF10FX Configuration 3

Sales code:
105G6846

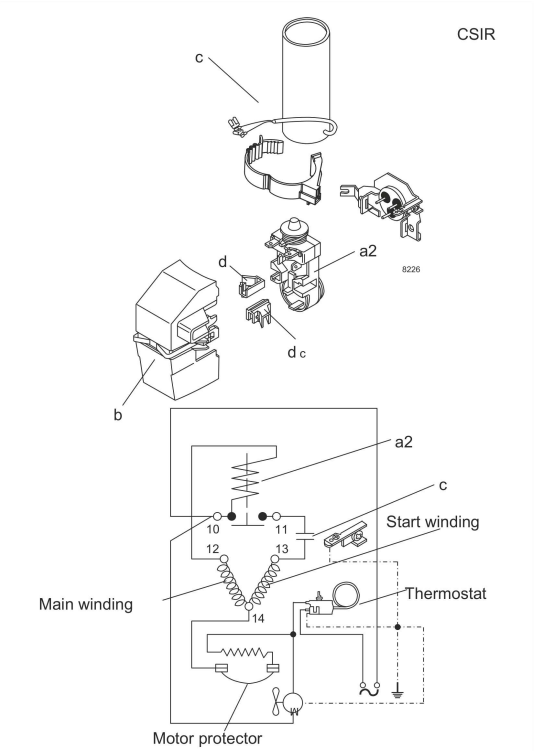
Configuration

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	**UL, VDE, CCC, EAC**
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 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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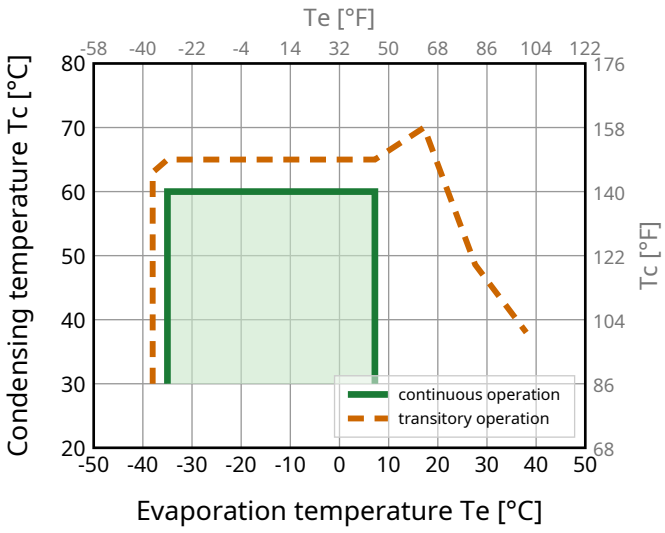
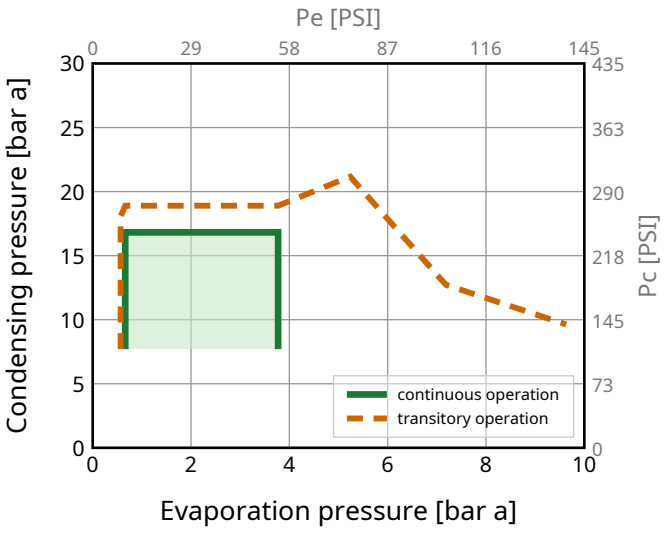
Components
a2 relay (protector: TI MRP56EN-6) 117U4139
c start capacitor 117U5018
b plastic cover + clamp 117U1021
d/dc cord relief 117U0349

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

Operation Pressure Range





Model
NF10FX Configuration 3

Sales code:
105G6846

Standard Conditions

R134a, 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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**299**	1020	257	**1.14**	3.89	262	1.86	5.80	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**223**	761	192	**0.89**	3.03	251	1.82	5.32	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**158**	538	136	**0.92**	3.15	171	1.67	3.45	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**583**	1990	502	**1.53**	5.22	381	2.27	12.70	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**456**	1555	392	**1.28**	4.36	357	2.18	10.99	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**506**	1726	435	**1.49**	5.07	340	2.12	11.80	**EN12900 MBP**

Performance Tables

R134a, 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]
-35	-31	**145**	494	125	**0.83**	2.83	175	1.66	3.12
-30	-22	**195**	664	167	**0.92**	3.15	211	1.73	4.20
-20	-4	**326**	1113	281	**1.18**	4.02	277	1.91	7.08
-10	14	**524**	1788	451	**1.54**	5.25	340	2.12	11.44
0	32	**816**	2783	702	**2.00**	6.81	408	2.36	18.00
7.2	45	**1100**	3753	946	**2.37**	8.07	465	2.56	24.51

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

-35	-31	**122**	416	105	**0.67**	2.28	183	1.62	2.89
-30	-22	**170**	578	146	**0.78**	2.66	217	1.72	4.03
-20	-4	**286**	977	246	**1.00**	3.43	285	1.93	6.85
-10	14	**456**	1555	392	**1.28**	4.36	357	2.18	10.99
0	32	**706**	2409	607	**1.61**	5.48	439	2.47	17.21
7.2	45	**952**	3248	819	**1.87**	6.37	510	2.69	23.46

Model
NF10FX Configuration 4

Sales code:
105G6846

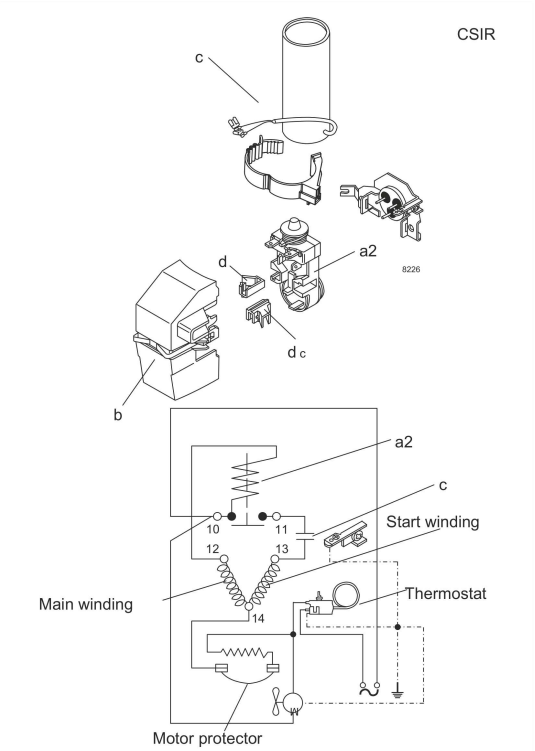
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R513A**
Application	**LBP+MBP**
Voltage range	**198-242 V**
Starting torque	**HST**
Approvals	**UL, VDE, CCC, EAC**
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 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram



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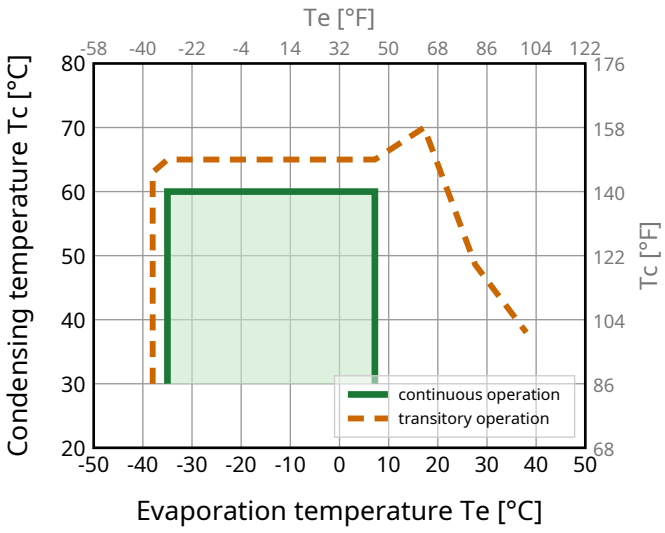
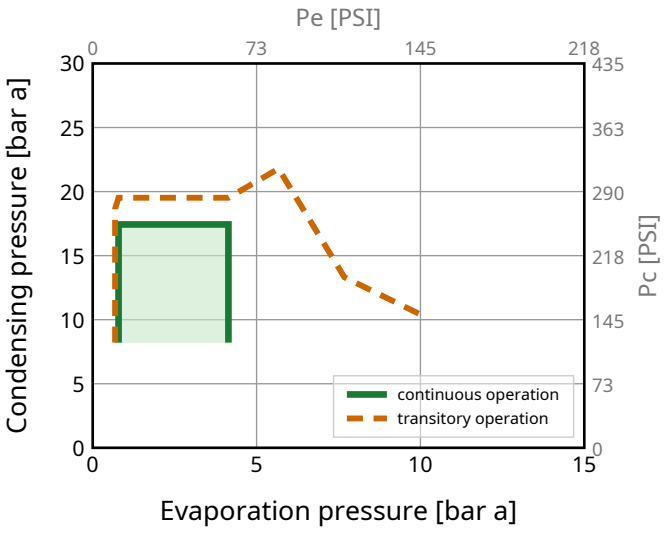
Components
a2 relay (protector: TI MRP56EN-6) 117U4139
c start capacitor 117U5018
b plastic cover + clamp 117U1021
d/dc cord relief 117U0349

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

Operation Pressure Range





Model
NF10FX Configuration 4

Sales code:
105G6846

Standard Conditions

R513A, 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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**329**	1122	283	**1.15**	3.92	287	1.95	7.20	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**240**	818	206	**0.87**	2.97	276	1.91	6.64	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**176**	601	151	**0.93**	3.17	190	1.63	4.42	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**611**	2085	525	**1.50**	5.14	406	2.34	15.23	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**472**	1611	406	**1.24**	4.22	381	2.26	13.25	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**526**	1793	452	**1.45**	4.94	363	2.20	14.23	**EN12900 MBP**

Performance Tables

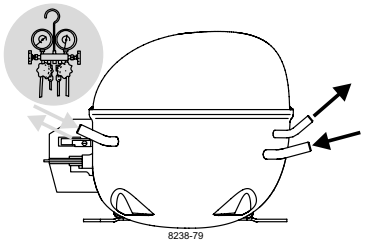
R513A, 230 V/60 Hz, CSIR, fan 3m/s

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]
-35	-31	**164**	558	141	**0.84**	2.87	195	1.64	4.03
-30	-22	**215**	733	185	**0.93**	3.16	232	1.77	5.30
-20	-4	**350**	1195	301	**1.17**	3.99	299	1.99	8.69
-10	14	**551**	1881	474	**1.52**	5.18	363	2.20	13.80
0	32	**845**	2884	727	**1.96**	6.68	432	2.43	21.41
7.2	45	**1129**	3852	971	**2.31**	7.90	488	2.61	28.93

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

-35	-31	**138**	469	118	**0.67**	2.28	206	1.68	3.79
-30	-22	**186**	633	160	**0.77**	2.62	241	1.80	5.12
-20	-4	**303**	1035	261	**0.98**	3.34	310	2.02	8.43
-10	14	**472**	1611	406	**1.24**	4.22	381	2.26	13.25
0	32	**719**	2454	619	**1.55**	5.28	465	2.54	20.45
7.2	45	**960**	3277	826	**1.79**	6.11	536	2.77	27.66



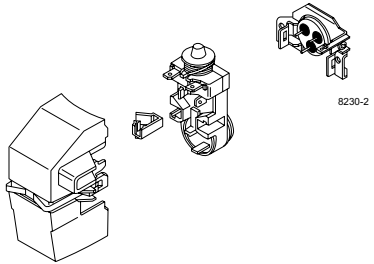
NF Compressors

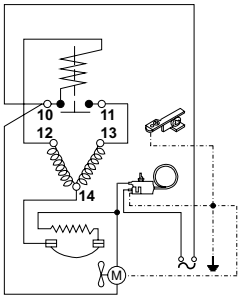
SECOP

Keep electrical equipment clear from oil, chemicals, and water

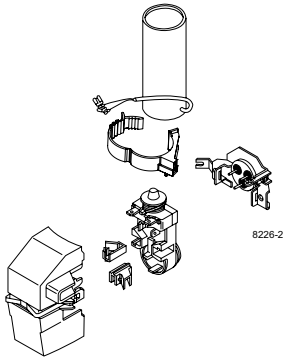
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

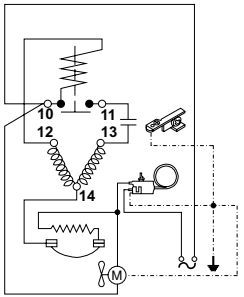
RSIR





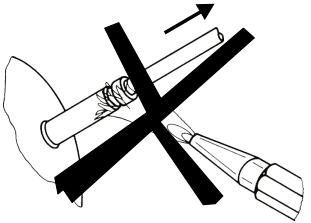
CSIR

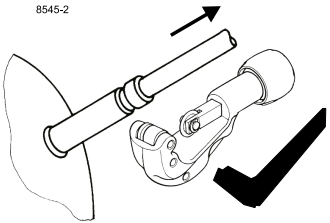


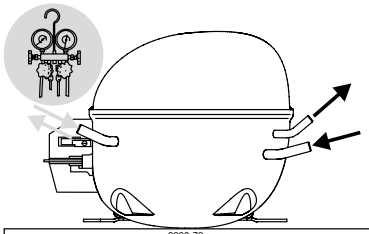


Service/Repair – R1234yf

(applies to all flammable refrigerants)







NF Compressors

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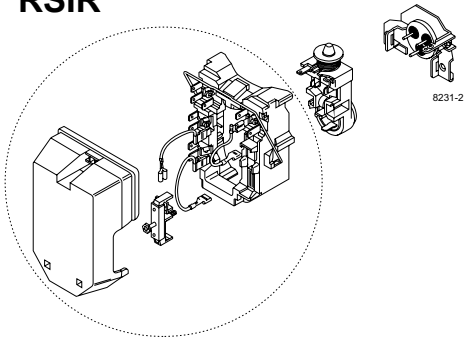
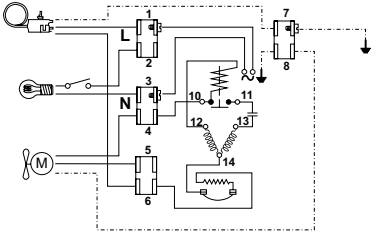
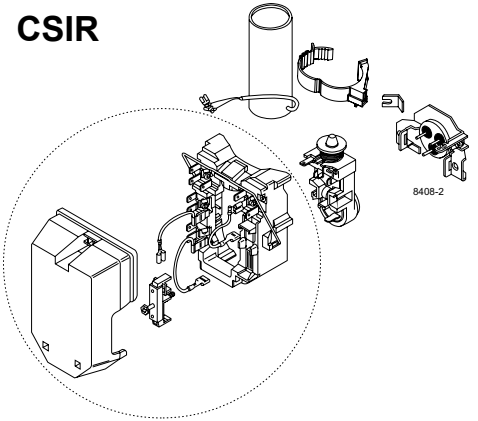
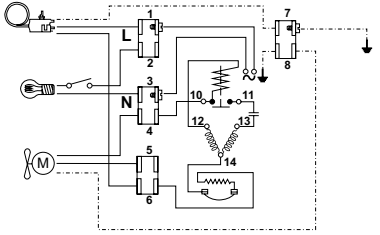
RSIR





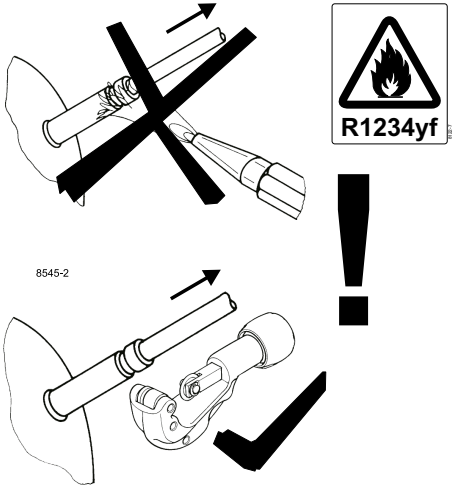
CSIR





Service/Repair – R1234yf

(applies to all flammable refrigerants)



Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. www.secop.com**