Single
Packs

Single Pack NF7FX 220V 50Hz / 208-230V 60Hz CSIR

Single pack code number: **195B4024**

Position	Title	Code	Amount
1	Compressor NF7FX	105G6743	1
2	Starting relay (overload protector MRP59EN-6)	117U4140	1
3	Starting capacitor (125µF 220V, 6.3mm)	117U5018	1
4	Cord relief	117U0349	2
5	Cover	117U1023	1
6	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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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

Model
NF7FX

Sales code:
105G6743

Compressor Design

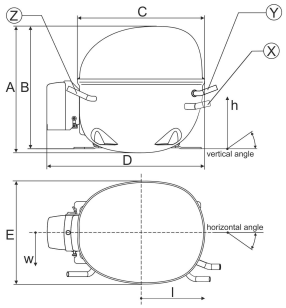
Oil type	**POE**	Winding resistance main	**6 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**12.6 Ohm**
Oil quantity	**268 / 9.06fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**external**		

Compressor Dimensions

Housing

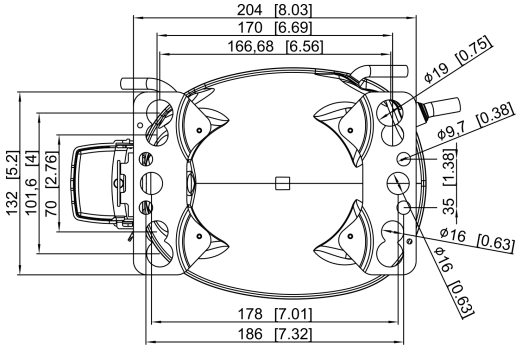
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



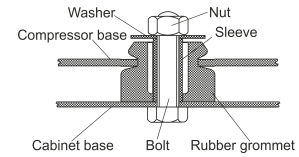
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in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

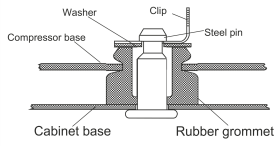


Dimensions in mm [in]

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

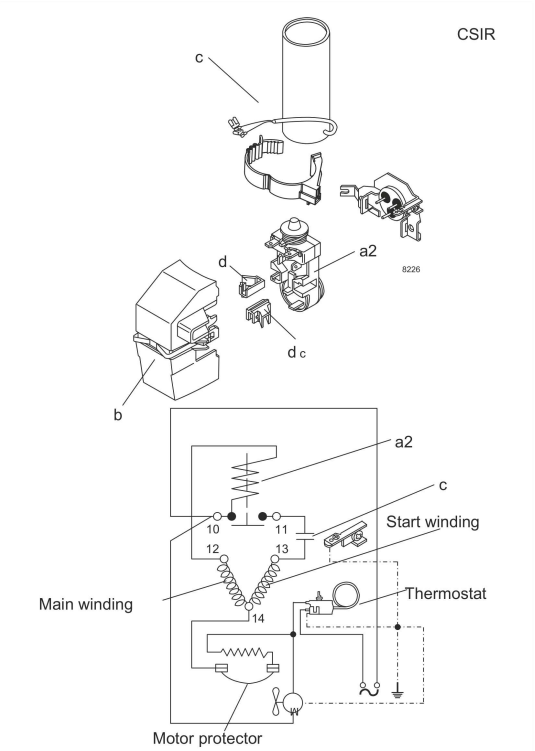
Configuration

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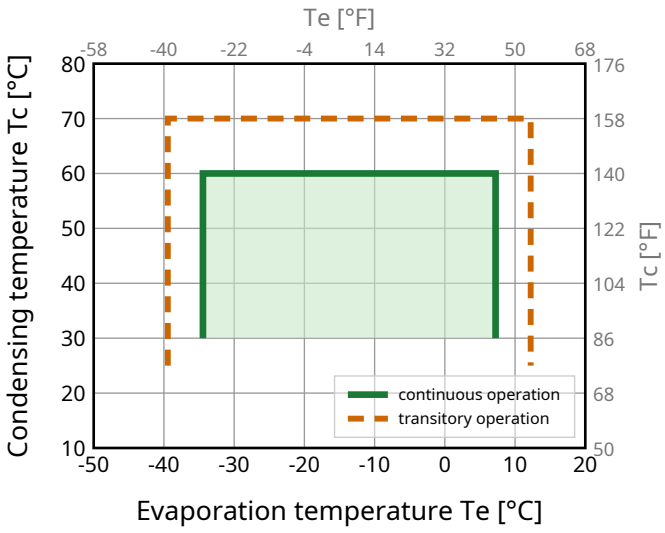
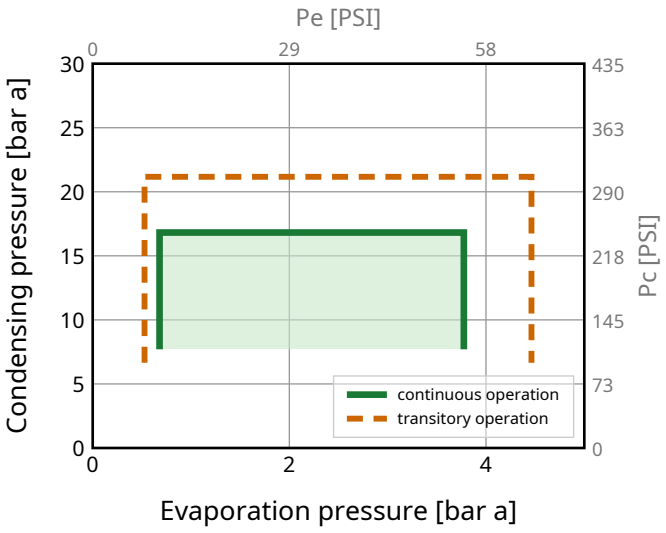
Components
a2 relay (protector: TI MRP59EN-6) 117U4140
c start capacitor 117U5018
b plastic cover 117U1023
d/dc cord relief 117U0349
d cord relief 117U0317

Operation Pressure Range





Model Sales code:

NF7FX Configuration 1 **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

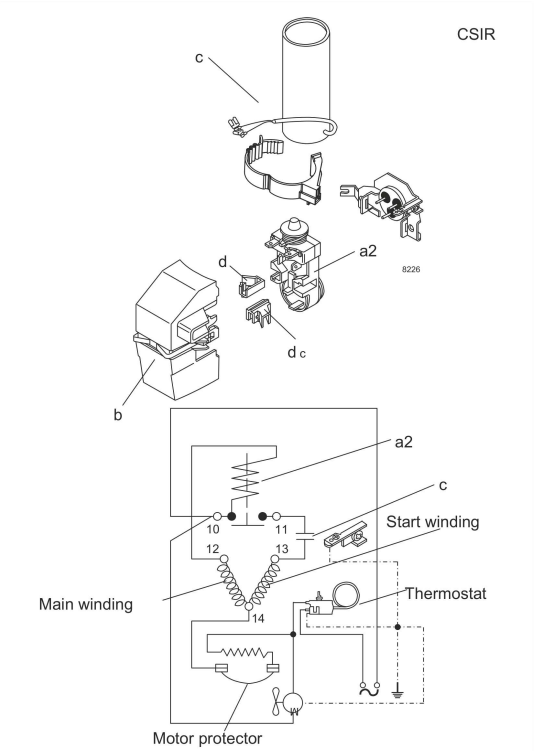
Configuration

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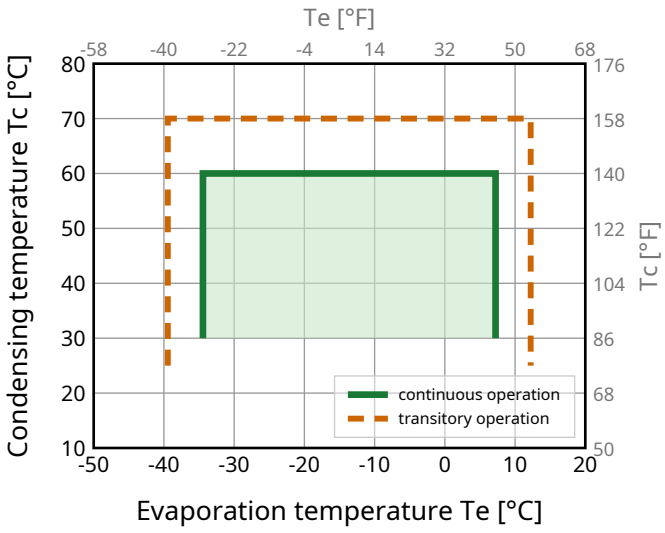
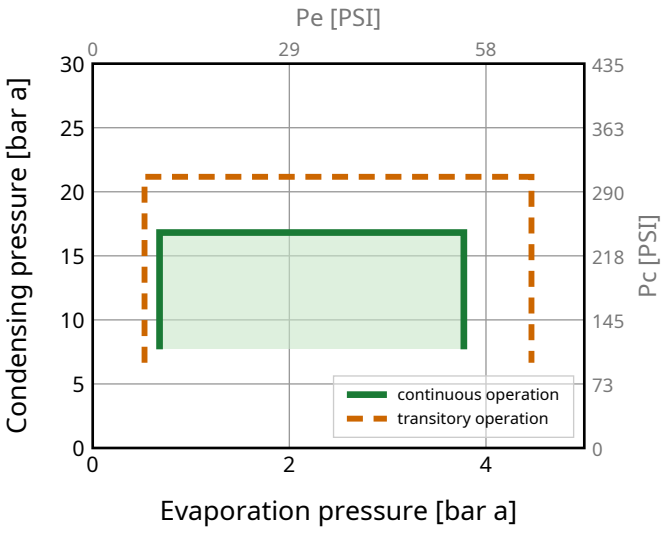
Components
a2 relay (protector: TI MRP59EN-6) 117U4140
c start capacitor 117U5018
b plastic cover 117U1023
d/dc cord relief 117U0349
d cord relief 117U0317

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

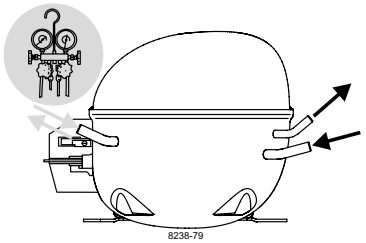
R134a, 220 V/60 Hz, CSIR, fan 1,5m/s

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



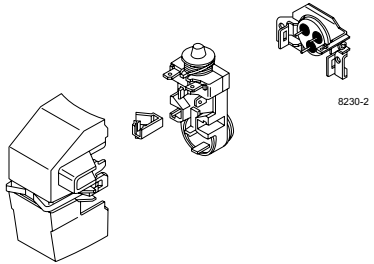
NF Compressors

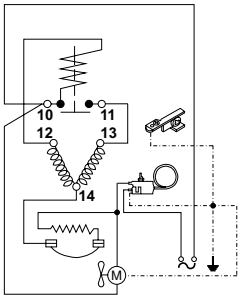
SECOP

Keep electrical equipment clear from oil, chemicals, and water

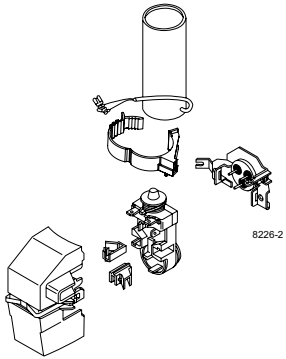
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

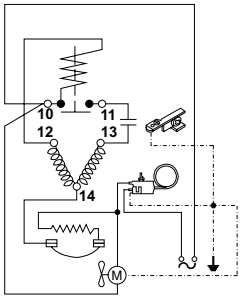
RSIR





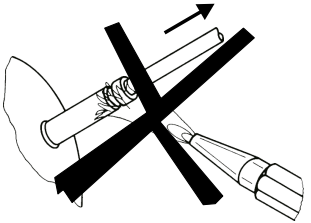
CSIR

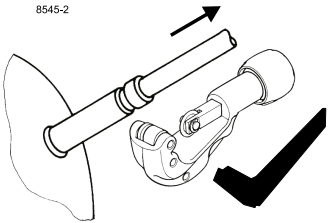


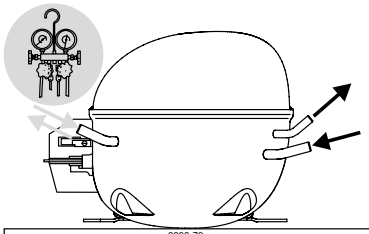


Service/Repair – R1234yf

(applies to all flammable refrigerants)







NF Compressors

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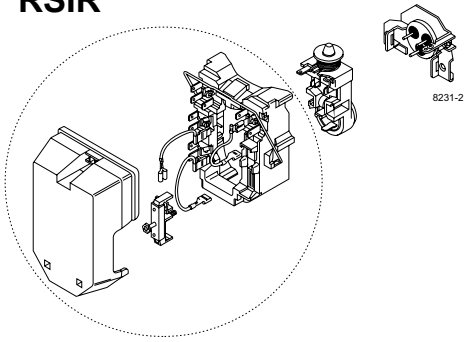
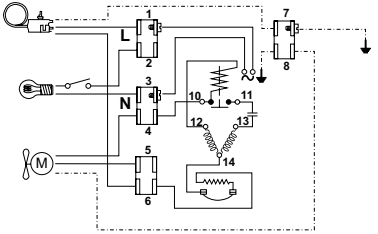
RSIR





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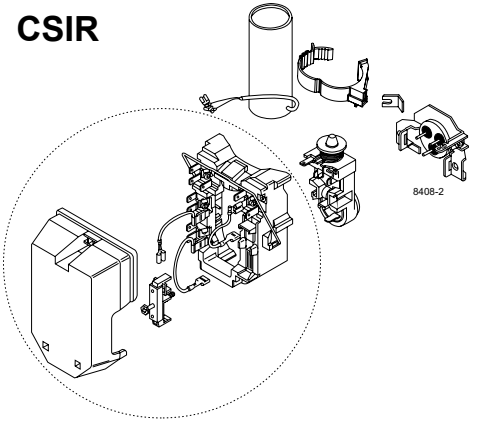

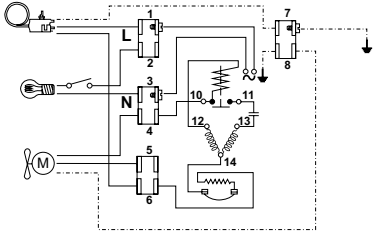

Service/Repair – R1234yf

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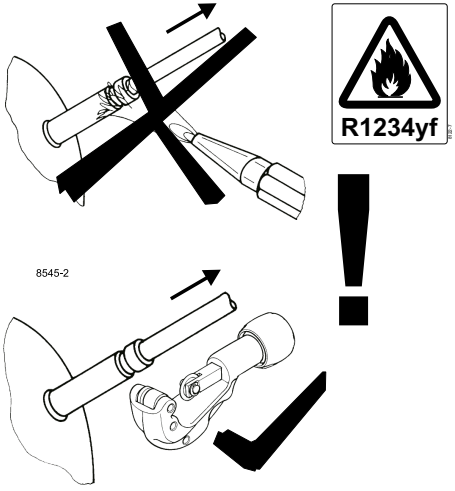

Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be 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**