Single
Packs

Single Pack NLE8.0CN 115-127V 60Hz CSIR

Single pack code number: **195B4536**

Position	Title	Code	Amount
1	Compressor NLE8.0CN	105H6093	1
2	Starting relay	117U7013	1
3	Starting capacitor (240µF 125V, 6.3mm)	117U5023	1
4	Cord relief	103N1010	1
5	Cover	103N0492	1
6	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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Model
NLE8.0CN

Sales code:
105H6093

Compressor Data

Refrigerant(s)	**R290**
Refr. charge - tech. limit	**400g / 14.11oz**
Weight	**10.95 kg / 24.14lbs**
Displacement	**7.96 cm3 / 0.49cu.in**
Compressors on pallet	**80**

General – Configurations With NLE8.0CN

–	Conf. 1	Conf. 2	Conf. 3
Motor configuration	CSIR	RSIR	RSCR
Power supply (nominal)	115 V/60 Hz	115 V/60 Hz	115 V/60 Hz
Number of phases	1	1	1
Voltage range	95-135 V	95-135 V	95-135 V
Approvals	UL, CCC	UL, CCC	UL, CCC
Starting torque	HST	LST	LST
Refrigerant	R290	R290	R290
Application	LBP+MBP	LBP+MBP	LBP+MBP
Hot gas defrost	OK	OK	OK
Long interval pull down	OK	OK	OK

Application Notes

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

Model
NLE8.0CN

Sales code:
105H6093

Compressor Design

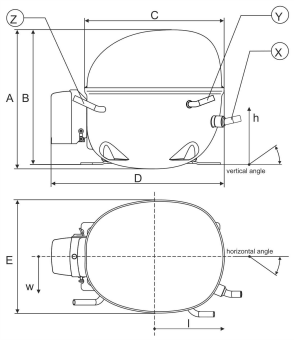
Oil type	**32 cSt POE RL32DR**	Winding resistance main	**1.99 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**6.22 Ohm**
Oil quantity	**268 / 9.06fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**120°C / 248°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

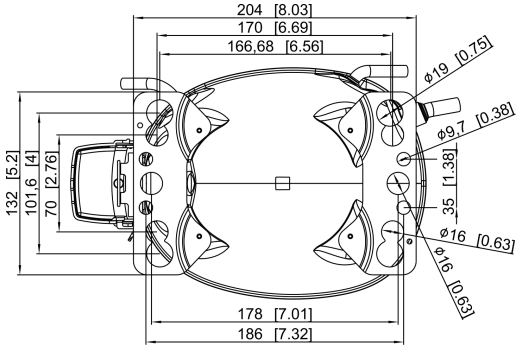
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



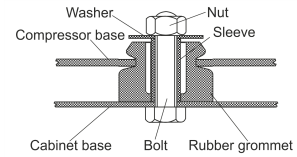
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	21°	155°
Position l/h/w [mm]	132/68.5/56.7 / 5.20/2.70/2.23in	94/101.7/81 / 3.70/4.00/3.19in	-109.3/94.3/72 / -4.30/3.71/2.83in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

Mounting Accessories

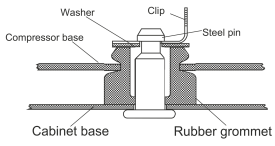


Dimensions in mm [in]

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
NLE8.0CN Configuration 1

Sales code:
105H6093

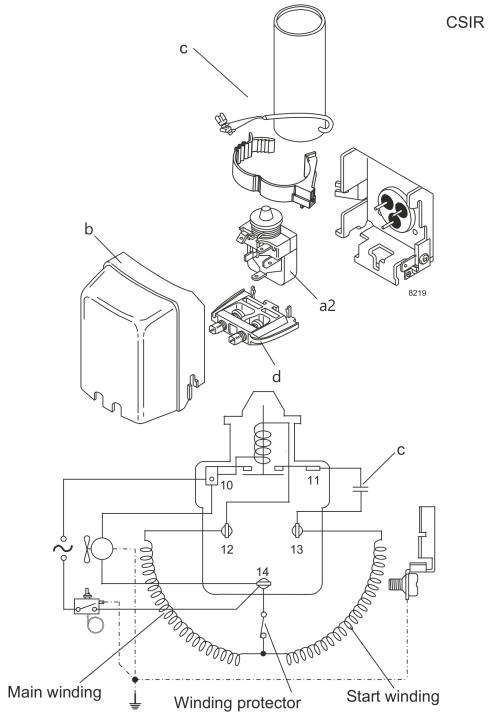
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**115 V/60 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**95-135 V**
Starting torque	**HST**
Approvals	**UL, CCC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**240 µF**
LRA (locked rotor amps / 4s/ U(N))	**23.1 A**
RLA (rated load amps / 1s/ U(N))	**4.3 A**
Cut in current (U(N))	**23.1 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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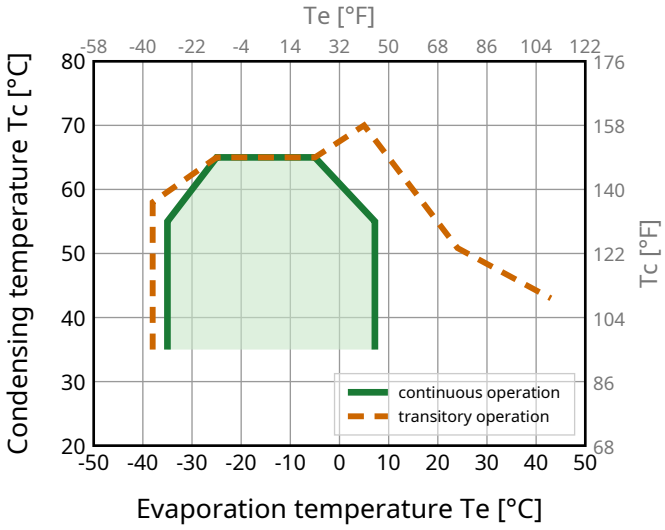
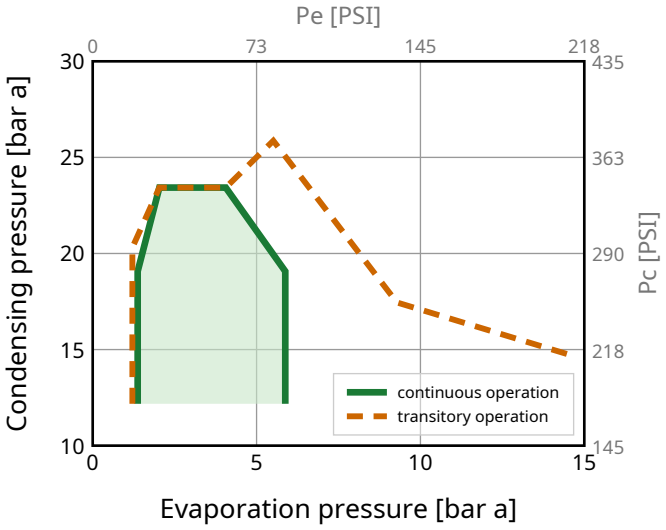
Components
a2 relay 117U7013
c start capacitor (240µF, 6,3mm) 117U5073
b plastic cover 103N2011
d cord relief 103N1010

Operation Pressure Range





Model
NLE8.0CN Configuration 1

Sales code:
105H6093

Standard Conditions

R290, 115 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	**455**	1553	392	**1.58**	5.38	289	3.52	4.62	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**339**	1157	292	**1.22**	4.16	278	3.45	4.25	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**268**	914	230	**1.24**	4.24	216	3.12	3.08	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**807**	2754	694	**2.07**	7.08	389	4.26	9.24	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**640**	2183	550	**1.72**	5.87	372	4.12	8.14	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**719**	2454	619	**2.10**	7.17	342	3.92	8.85	**EN12900 MBP**

Performance Tables

R290, 115 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	**252**	861	217	**1.16**	3.97	217	3.12	2.84
-30	-22	**324**	1107	279	**1.33**	4.54	244	3.26	3.67
-20	-4	**503**	1717	433	**1.71**	5.82	295	3.58	5.72
-10	14	**748**	2551	643	**2.19**	7.46	342	3.92	8.59
0	32	**1081**	3689	930	**2.82**	9.63	383	4.23	12.57
7.2	45	**1390**	4743	1195	**3.41**	11.63	408	4.41	16.35

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

-35	-31	**196**	669	169	**0.92**	3.14	213	3.07	2.44
-30	-22	**264**	900	227	**1.07**	3.66	246	3.25	3.29
-20	-4	**425**	1449	365	**1.37**	4.67	310	3.67	5.35
-10	14	**640**	2183	550	**1.72**	5.87	372	4.12	8.14
0	32	**933**	3182	802	**2.17**	7.42	429	4.57	12.03
7.2	45	**1205**	4110	1036	**2.58**	8.82	466	4.87	15.74

Model
NLE8.0CN Configuration 2

Sales code:
105H6093

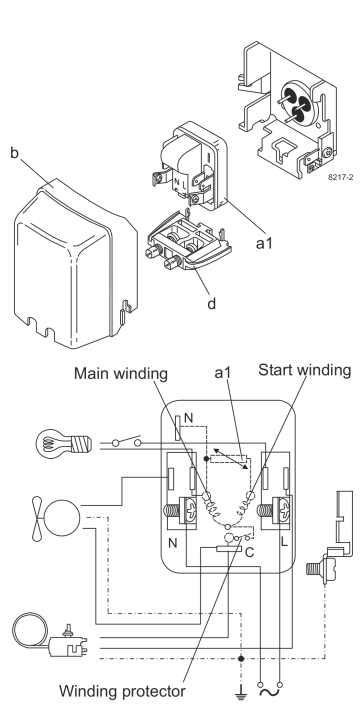
Configuration

Motor configuration	**RSIR**
Power supply (nominal)	**115 V/60 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**95-135 V**
Starting torque	**LST**
Approvals	**UL, CCC**
Starting device type	**PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ U(N))	**23.1 A**
RLA (rated load amps / 1s/ U(N))	**4.3 A**
Cut in current (U(N))	**23.1 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

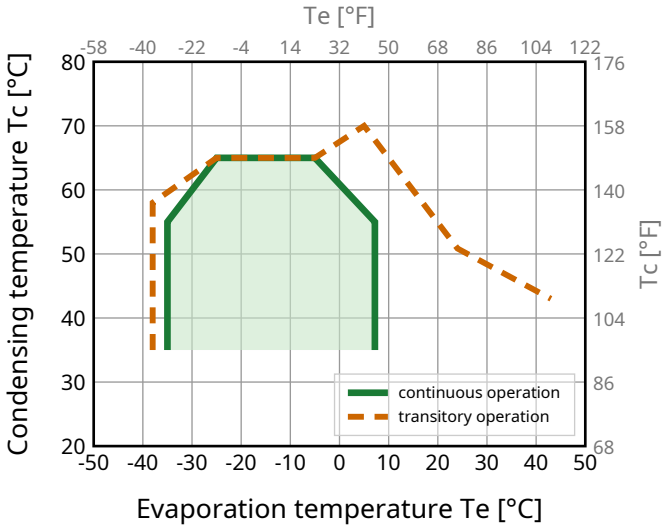
Electrical Accessories / Wiring Diagram

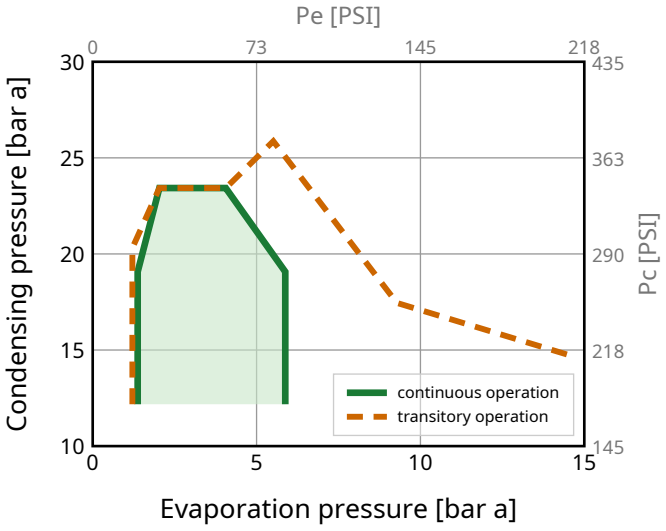


Components
a1 e-PTC starter (115V, 5Ohm, 6.3mm, 4.8-cap) 103N0057
b plastic cover 103N2011
d cord relief 103N1010

Alternative components
a1 e-PTC starter 103N0058

Operation Pressure Range





Model

NLE8.0CN Configuration 2

Sales code:

105H6093

Standard Conditions

R290, 115 V/60 Hz, RSIR, 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	**455**	1553	392	**1.58**	5.38	289	3.52	4.62	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**339**	1157	292	**1.22**	4.16	278	3.45	4.25	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**268**	914	230	**1.24**	4.24	216	3.12	3.08	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**807**	2754	694	**2.07**	7.08	389	4.26	9.24	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**640**	2183	550	**1.72**	5.87	372	4.12	8.14	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**719**	2454	619	**2.10**	7.17	342	3.92	8.85	**EN12900 MBP**

Performance Tables

R290, 115 V/60 Hz, RSIR, 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	**252**	861	217	**1.16**	3.97	217	3.12	2.84
-30	-22	**324**	1107	279	**1.33**	4.54	244	3.26	3.67
-20	-4	**503**	1717	433	**1.71**	5.82	295	3.58	5.72
-10	14	**748**	2551	643	**2.19**	7.46	342	3.92	8.59
0	32	**1081**	3689	930	**2.82**	9.63	383	4.23	12.57
7.2	45	**1390**	4743	1195	**3.41**	11.63	408	4.41	16.35

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

-35	-31	**196**	669	169	**0.92**	3.14	213	3.07	2.44
-30	-22	**264**	900	227	**1.07**	3.66	246	3.25	3.29
-20	-4	**425**	1449	365	**1.37**	4.67	310	3.67	5.35
-10	14	**640**	2183	550	**1.72**	5.87	372	4.12	8.14
0	32	**933**	3182	802	**2.17**	7.42	429	4.57	12.03
7.2	45	**1205**	4110	1036	**2.58**	8.82	466	4.87	15.74

Model
NLE8.0CN Configuration 3

Sales code:
105H6093

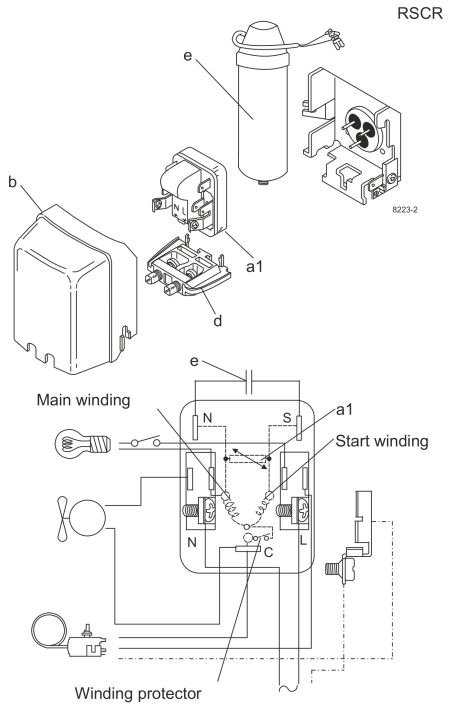
Configuration

Motor configuration	**RSCR**
Power supply (nominal)	**115 V/60 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**95-135 V**
Starting torque	**LST**
Approvals	**UL, CCC**
Starting device type	**PTC**
Run capacitor	**20 µF**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ U(N))	**23.1 A**
RLA (rated load amps / 1s/ U(N))	**4.3 A**
Cut in current (U(N))	**23.1 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

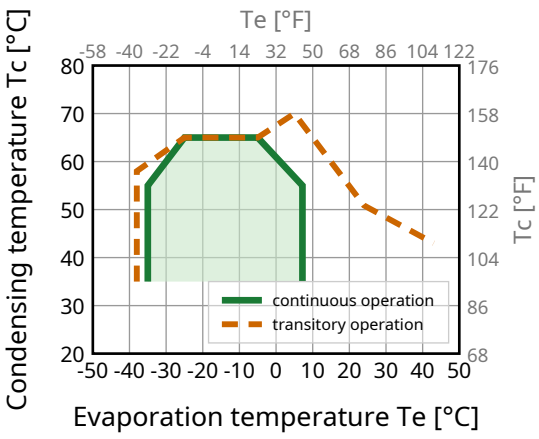
Electrical Accessories / Wiring Diagram

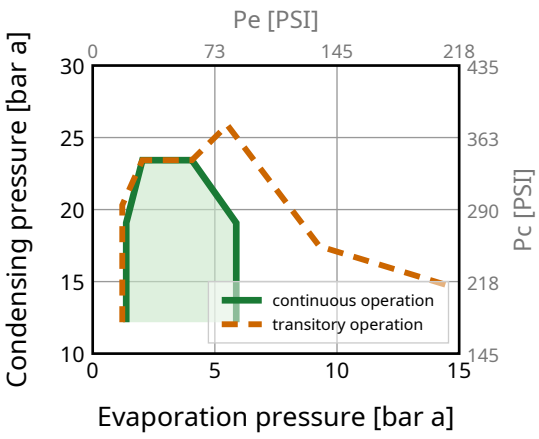


Components
a1 e-PTC starter 103N0058
e run capacitor (20µF, 6.3mm) 117-7147
b plastic cover 103N2011
d cord relief 103N1010
bracket for run capacitor 117-0300
screw M4x8mm 117-0301

Alternative components
a1 e-PTC starter (115V, 5Ohm, 6.3mm, 4.8-cap) 103N0057
e run capacitor (20µF, 4.8mm) 117-7146
b plastic cover 103N2011
d cord relief 103N1010
bracket for run capacitor 117-0300
screw M4x8mm 117-0301

Operation Pressure Range





Model

NLE8.0CN Configuration 3

Sales code:

105H6093

Standard Conditions

R290, 115 V/60 Hz, RSCR, 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	**466**	1590	401	**1.71**	5.83	273	3.33	4.73	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**347**	1183	298	**1.32**	4.50	263	3.26	4.35	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**272**	929	234	**1.32**	4.52	206	2.97	3.12	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**823**	2809	708	**2.27**	7.74	363	3.97	9.43	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**654**	2231	562	**1.88**	6.41	348	3.86	8.31	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**735**	2507	632	**2.29**	7.83	320	3.67	9.04	**EN12900 MBP**

Performance Tables

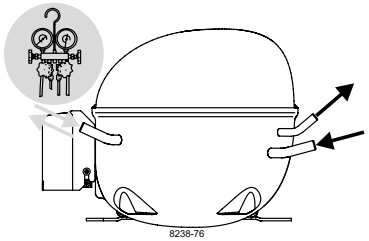
R290, 115 V/60 Hz, RSCR, fan 3m/s

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	**256**	875	221	**1.24**	4.23	207	2.97	2.89
-30	-22	**331**	1130	285	**1.43**	4.89	231	3.09	3.74
-20	-4	**515**	1758	443	**1.85**	6.32	278	3.37	5.86
-10	14	**764**	2606	657	**2.39**	8.14	320	3.67	8.77
0	32	**1099**	3749	945	**3.10**	10.57	355	3.92	12.78
7.2	45	**1405**	4795	1209	**3.76**	12.83	374	4.04	16.53

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

-35	-31	**199**	680	171	**0.98**	3.35	203	2.93	2.48
-30	-22	**269**	919	232	**1.15**	3.94	233	3.09	3.36
-20	-4	**435**	1484	374	**1.49**	5.08	292	3.46	5.47
-10	14	**654**	2231	562	**1.88**	6.41	348	3.86	8.31
0	32	**948**	3233	815	**2.39**	8.14	397	4.24	12.22
7.2	45	**1218**	4155	1047	**2.85**	9.71	428	4.46	15.91



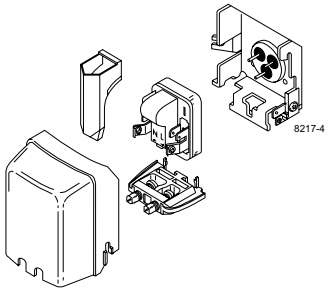
NL Compressors

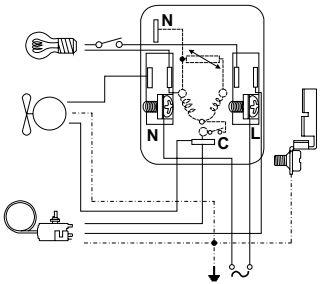
SECOP

Keep electrical equipment clear from oil, chemicals, and water

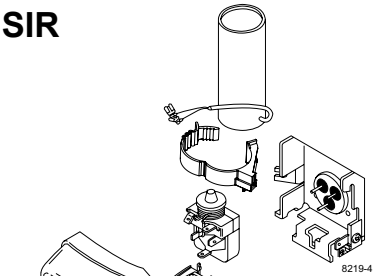
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

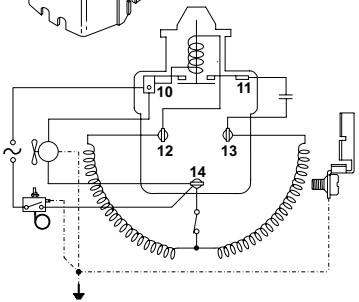
RSIR



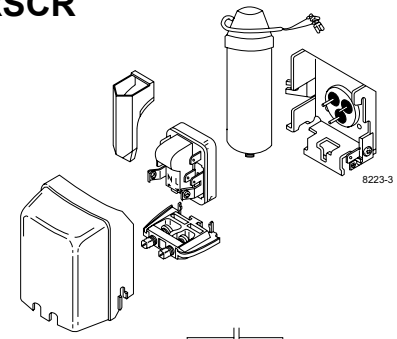


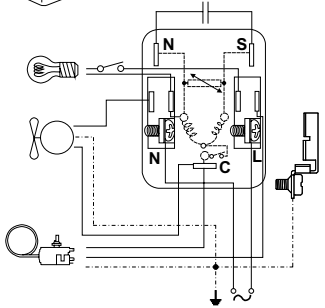
CSIR

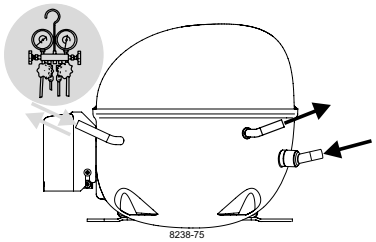




RSCR







NL Compressors

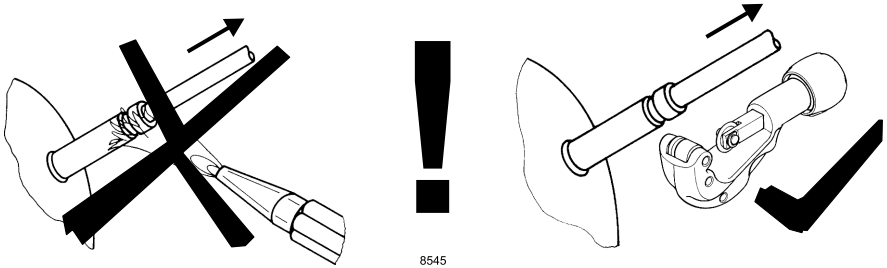
SECOP

Keep electrical equipment clear from oil, chemicals, and water

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

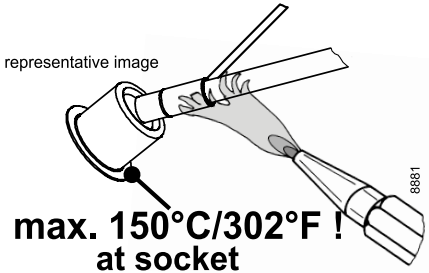
Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)



Brazing on Suction Connectors (Direct Intake)

representative image



! max. 150°C/302°F ! at socket

brazing solder: phosphor (LP7) or silver

Refer to Product Bulletin:
Brazing on Suction Connectors (Compressors with Direct Suction Intake)

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**