Single
Packs

Single Pack NLE8.8CN 220-240V 50Hz CSIR

Single pack code number: **195B4103**

Position	Title	Code	Amount
1	Compressor NLE8.8CN	105H6880	1
2	Starting relay	117U7002	1
3	Starting capacitor (80µF 220V, 6.3mm)	117U5015	1
4	Cord relief	103N1010	1
5	Cover	103N2010	1
6	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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Model
NLE8.8CN

Sales code:
105H6880

Compressor Data

Refrigerant(s)	**R290**
Refr. charge - tech. limit	**400g / 14.11oz**
Weight	**10.90 kg / 24.03lbs**
Displacement	**8.76 cm3 / 0.53cu.in**
Compressors on pallet	**80**

General – Configurations With NLE8.8CN

–	Conf. 1	Conf. 2	Conf. 3
Motor configuration	CSIR	eRSIR	eRSCR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz	220-240 V/50 Hz
Number of phases	1	1	1
Voltage range	198-254 V	198-254 V	198-254 V
Approvals	VDE, CCC	VDE, CCC	VDE, 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
NLE8.8CN

Sales code:
105H6880

Compressor Design

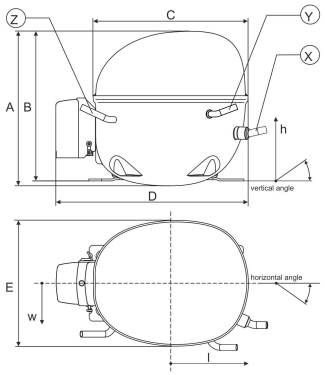
Oil type	**POE**	Winding resistance main	**9.28 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**11.64 Ohm**
Oil quantity	**260 / 8.79fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**120°C / 248°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

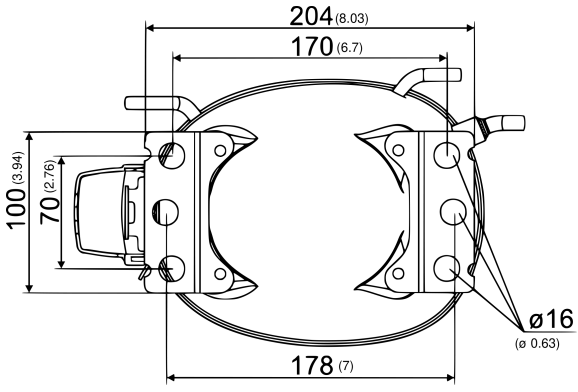
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



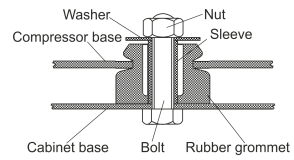
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	21°	155°
Position l/h/w [mm]	132/68.5/56.7 / 5.20/2.70/2.23in	94/101.7/81 / 3.70/4.00/3.19in	-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

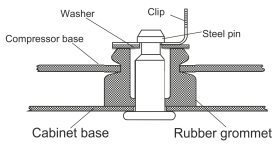


Dimensions in mm [in]

Bolt joint



Snap-on



	one comp.	multi pack
Bolt joint | M6 | ø16mm	118-1917	118-1918
Bolt joint | ø1/4" | ø16mm	118-1946	–
Snap-on | ø7,3 | ø16mm	118-1947	118-1919

Model
NLE8.8CN Configuration 1

Sales code:
105H6880

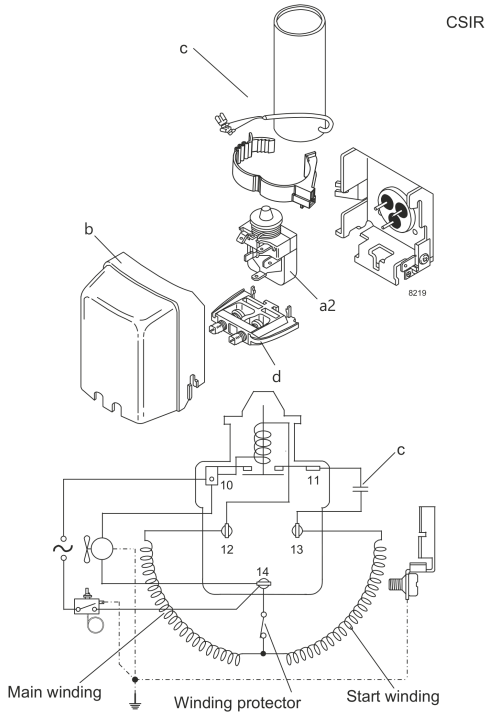
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**VDE, CCC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**10.7 A**
RLA (rated load amps / 1s/ U(N))	**2.15 A**
Cut in current (U(N))	**15.9 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

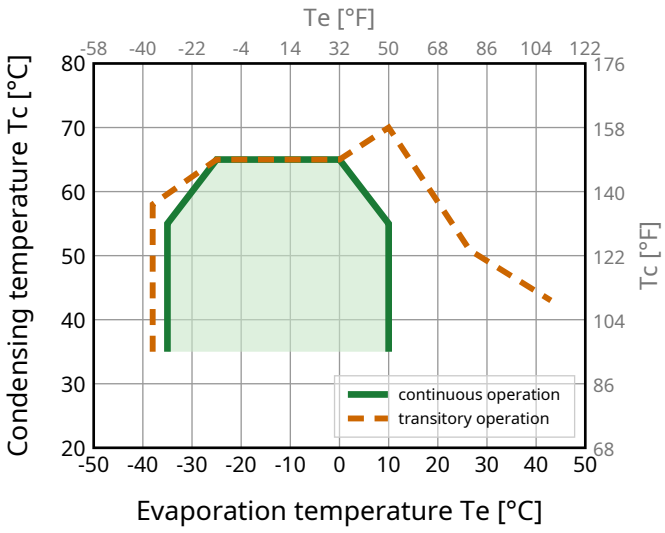


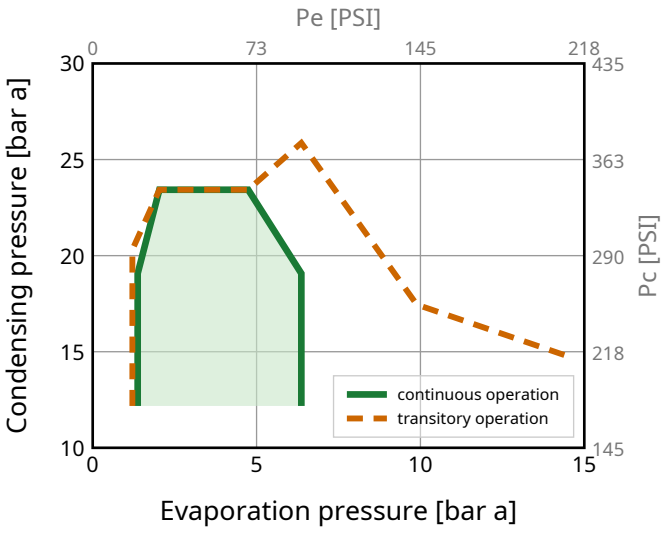
View full size

Components
a2 relay 117U7002
c start capacitor (80µF) 117U5015
b plastic cover 103N2010
d cord relief 103N1010

Alternative components
c start capacitor (80µF) 117U5079
b plastic cover 103N2011

Operation Pressure Range





Model

NLE8.8CN Configuration 1

Sales code:

105H6880

Standard Conditions

R290, 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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**432**	1474	372	**1.57**	5.36	275	1.76	4.39	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**322**	1098	277	**1.22**	4.15	264	1.73	4.03	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**256**	872	220	**1.26**	4.29	203	1.55	2.93	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**752**	2567	647	**1.98**	6.75	380	2.15	8.61	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**599**	2043	515	**1.65**	5.64	362	2.08	7.62	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**671**	2289	577	**2.06**	7.01	326	1.95	8.26	**EN12900 MBP**

Performance Tables

R290, 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]
-35	-31	**248**	846	213	**1.20**	4.10	206	1.56	2.79
-30	-22	**311**	1060	267	**1.35**	4.60	230	1.63	3.51
-20	-4	**473**	1613	407	**1.69**	5.77	280	1.78	5.38
-10	14	**697**	2380	600	**2.14**	7.29	326	1.95	8.01
0	32	**1001**	3416	861	**2.73**	9.33	366	2.10	11.64
10	50	**1400**	4778	1204	**3.56**	12.14	394	2.21	16.56

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

-35	-31	**189**	645	163	**0.94**	3.21	201	1.54	2.36
-30	-22	**252**	858	216	**1.08**	3.70	232	1.63	3.14
-20	-4	**402**	1370	345	**1.35**	4.61	297	1.84	5.05
-10	14	**599**	2043	515	**1.65**	5.64	362	2.08	7.62
0	32	**860**	2933	739	**2.04**	6.95	422	2.31	11.08
10	50	**1200**	4095	1032	**2.54**	8.68	472	2.53	15.77

Model
NLE8.8CN Configuration 2

Sales code:
105H6880

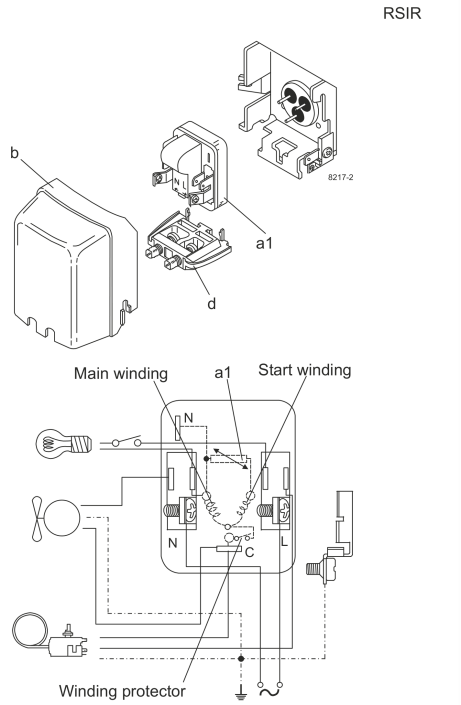
Configuration

Motor configuration	**eRSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**198-254 V**
Starting torque	**LST**
Approvals	**VDE, CCC**
Starting device type	**e-PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ U(N))	**10.7 A**
RLA (rated load amps / 1s/ U(N))	**2.15 A**
Cut in current (U(N))	**15.9 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

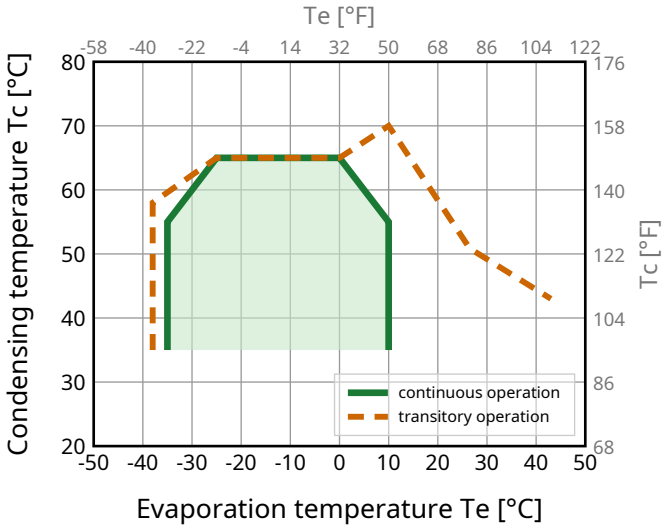
Electrical Accessories / Wiring Diagram

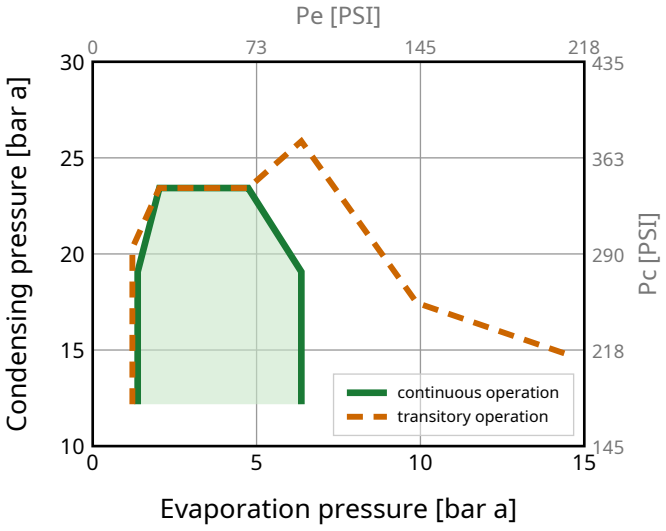


Components
a1 e-PTC starter (220V, 25Ohm, 4.8mm) 103N0050
b plastic cover 103N2010
d cord relief 103N1010

Alternative components
b plastic cover 103N2011

Operation Pressure Range





Model

NLE8.8CN Configuration 2

Sales code:

105H6880

Standard Conditions

R290, 220 V/50 Hz, eRSIR, 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	**432**	1474	372	**1.57**	5.36	275	1.76	4.39	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**322**	1098	277	**1.22**	4.15	264	1.73	4.03	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**256**	872	220	**1.26**	4.29	203	1.55	2.93	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**752**	2567	647	**1.98**	6.75	380	2.15	8.61	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**599**	2043	515	**1.65**	5.64	362	2.08	7.62	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**671**	2289	577	**2.06**	7.01	326	1.95	8.26	**EN12900 MBP**

Performance Tables

R290, 220 V/50 Hz, eRSIR, 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	**248**	846	213	**1.20**	4.10	206	1.56	2.79
-30	-22	**311**	1060	267	**1.35**	4.60	230	1.63	3.51
-20	-4	**473**	1613	407	**1.69**	5.77	280	1.78	5.38
-10	14	**697**	2380	600	**2.14**	7.29	326	1.95	8.01
0	32	**1001**	3416	861	**2.73**	9.33	366	2.10	11.64
10	50	**1400**	4778	1204	**3.56**	12.14	394	2.21	16.56

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

-35	-31	**189**	645	163	**0.94**	3.21	201	1.54	2.36
-30	-22	**252**	858	216	**1.08**	3.70	232	1.63	3.14
-20	-4	**402**	1370	345	**1.35**	4.61	297	1.84	5.05
-10	14	**599**	2043	515	**1.65**	5.64	362	2.08	7.62
0	32	**860**	2933	739	**2.04**	6.95	422	2.31	11.08
10	50	**1200**	4095	1032	**2.54**	8.68	472	2.53	15.77

Model
NLE8.8CN Configuration 3

Sales code:
105H6880

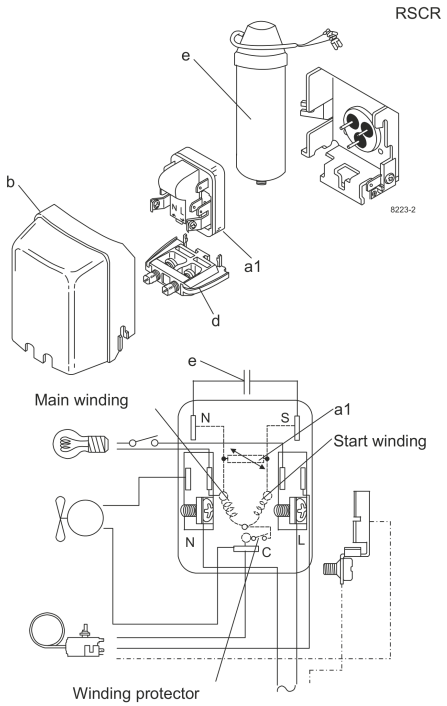
Configuration

Motor configuration	**eRSCR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**198-254 V**
Starting torque	**LST**
Approvals	**VDE, CCC**
Starting device type	**e-PTC**
Run capacitor	**4 µF**
Start capacitor	**-/-**
LRA (locked rotor amps / 4s/ U(N))	**10.7 A**
RLA (rated load amps / 1s/ U(N))	**2.15 A**
Cut in current (U(N))	**15.9 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

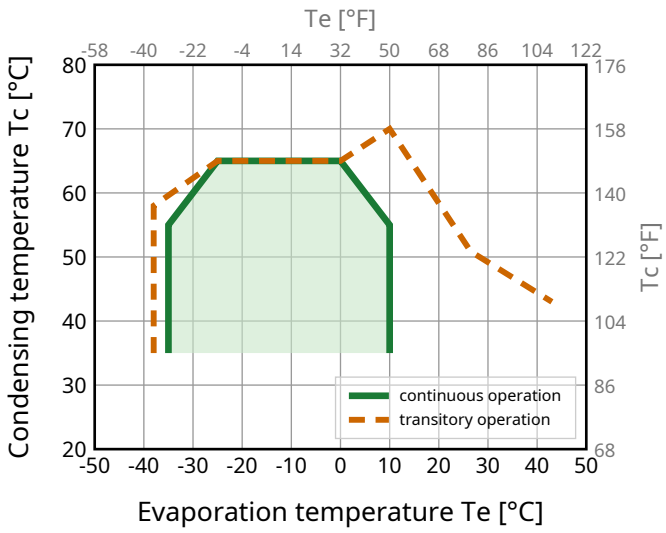
Electrical Accessories / Wiring Diagram

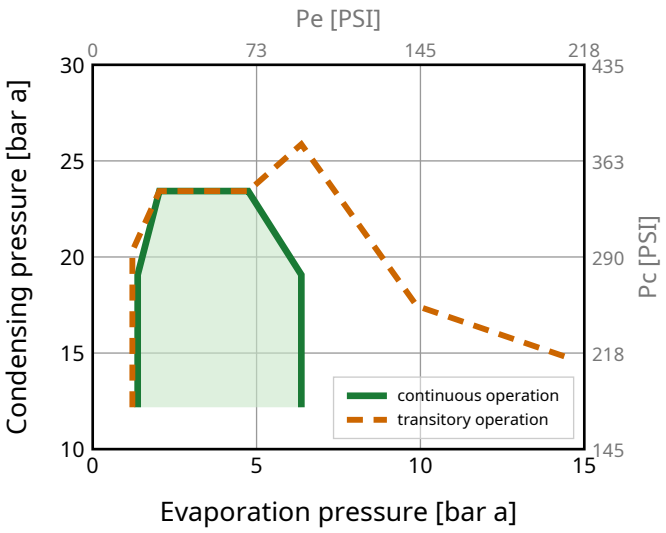


Components
a1 e-PTC starter (220V, 25Ohm, 4.8mm) 103N0050
e run capacitor (4µF, 4.8mm) 117-7119
b plastic cover 103N2010
d cord relief 103N1010
bracket for run capacitor 117-0300
screw M4x8mm 117-0301

Alternative components
b plastic cover 103N2011

Operation Pressure Range





Model

NLE8.8CN Configuration 3

Sales code:

105H6880

Standard Conditions

R290, 220 V/50 Hz, eRSCR, 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	**436**	1489	375	**1.65**	5.64	264	1.46	4.43	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**325**	1109	279	**1.28**	4.37	254	1.43	4.07	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**258**	881	222	**1.32**	4.49	196	1.30	2.96	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**760**	2592	653	**2.08**	7.10	365	1.89	8.70	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**605**	2064	520	**1.74**	5.93	348	1.80	7.69	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**678**	2312	583	**2.15**	7.34	315	1.70	8.34	**EN12900 MBP**

Performance Tables

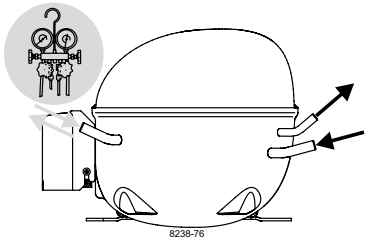
R290, 220 V/50 Hz, eRSCR, fan 3m/s

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	**250**	855	215	**1.26**	4.30	199	1.31	2.82
-30	-22	**314**	1070	270	**1.42**	4.83	222	1.36	3.54
-20	-4	**477**	1629	411	**1.77**	6.05	269	1.51	5.43
-10	14	**704**	2403	606	**2.24**	7.63	315	1.70	8.09
0	32	**1011**	3450	870	**2.86**	9.75	354	1.89	11.76
10	50	**1414**	4826	1216	**3.73**	12.71	380	2.02	16.73

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

-35	-31	**191**	652	164	**0.99**	3.37	194	1.26	2.38
-30	-22	**254**	867	219	**1.14**	3.89	223	1.33	3.17
-20	-4	**406**	1384	349	**1.42**	4.85	285	1.54	5.11
-10	14	**605**	2064	520	**1.74**	5.93	348	1.80	7.69
0	32	**868**	2962	747	**2.14**	7.32	405	2.07	11.20
10	50	**1212**	4136	1042	**2.69**	9.17	451	2.28	15.93



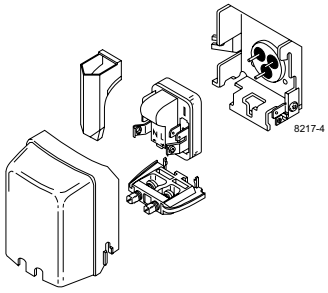
NL Compressors

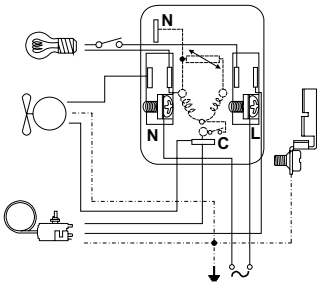
SECOP

Keep electrical equipment clear from oil, chemicals, and water

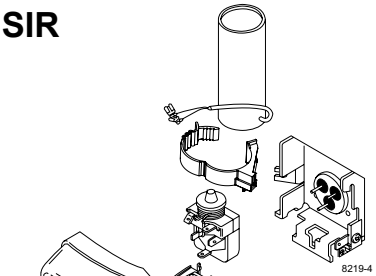
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

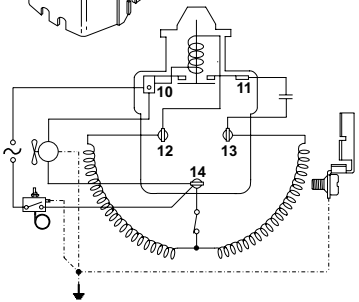
RSIR



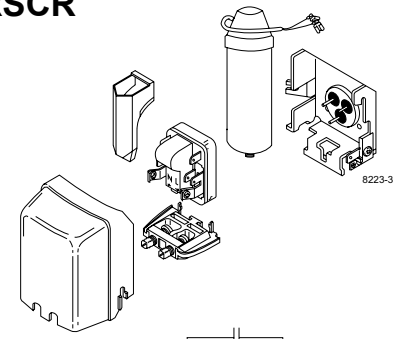


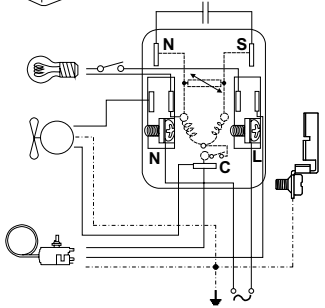
CSIR

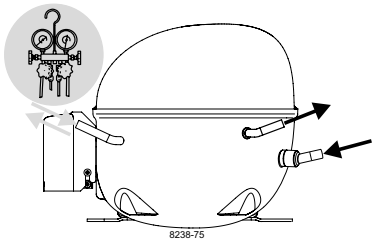




RSCR







NL Compressors

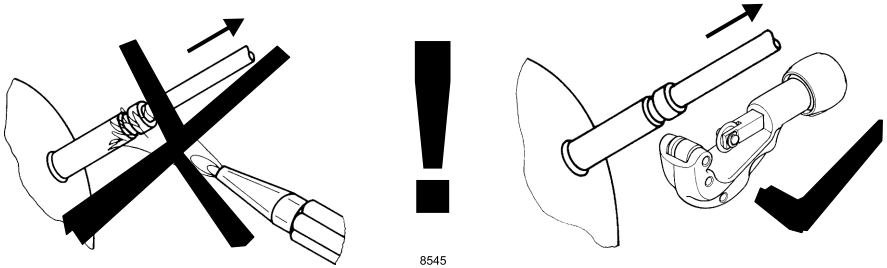
SECOP

Keep electrical equipment clear from oil, chemicals, and water

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

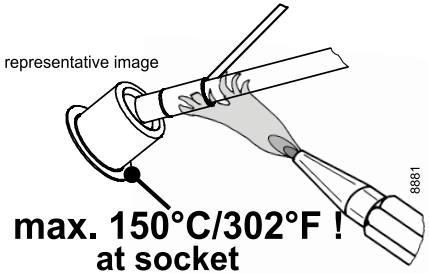
Service/Repair – R290, R600a, R170, R1270, R1234yf

(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**