Single
Packs

Single Pack NLE12.6CNL 220-240V 50Hz CSIR

Single pack code number: **195B4105**

Position	Title	Code	Amount
1	Compressor NLE12.6CNL	105H6378	1
2	Starting relay	117U7003	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
NLE12.6CNL

Sales code:
105H6378

Compressor Data

Refrigerant(s)	**R290**
Refr. charge - tech. limit	**300g / 10.58oz**
Weight	**11.80 kg / 26.01lbs**
Displacement	**12.55 cm3 / 0.77cu.in**
Compressors on pallet	**80**

General – Configurations With NLE12.6CNL

–	**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	LBP	LBP
Hot gas defrost	OK	OK	OK
Long interval pull down	OK	OK	–

Application Notes

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

Model
NLE12.6CNL

Sales code:
105H6378

Compressor Design

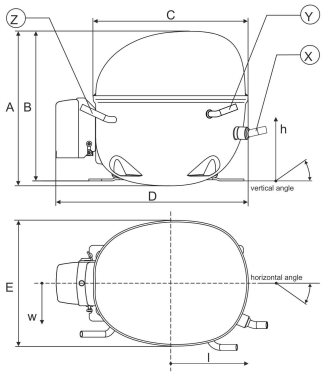
Oil type	**POE**	Winding resistance main	**5.9 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**10.8 Ohm**
Oil quantity	**298 / 10.08fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

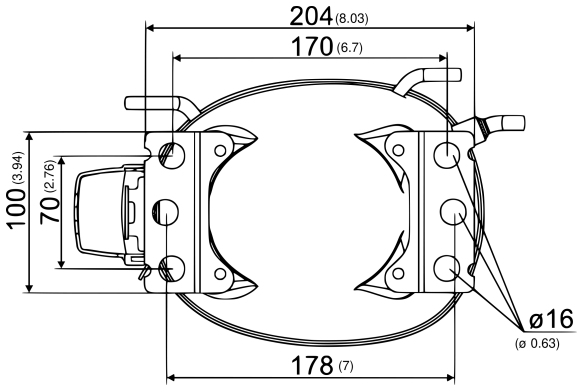
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



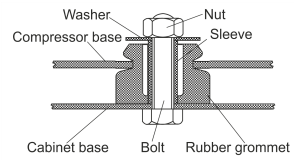
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	21°	155°
Position l/h/w [mm]	132/68.5/56.7 / 5.20/2.70/2.23in	94/101.7/81 / 3.70/4.00/3.19in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

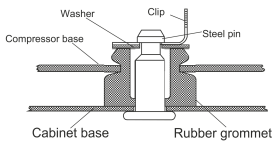


Dimensions in mm [in]

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
NLE12.6CNL Configuration 1

Sales code:
105H6378

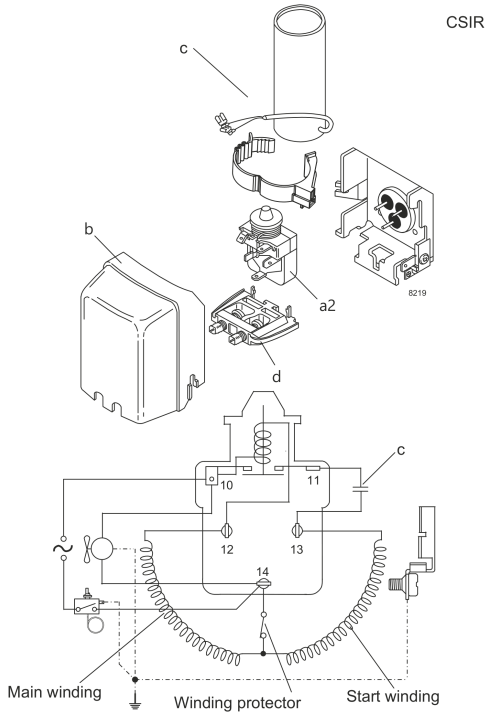
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R290**
Application	**LBP**
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))	**15.3 A**
RLA (rated load amps / 1s/ U(N))	**2.7 A**
Cut in current (U(N))	**19.2 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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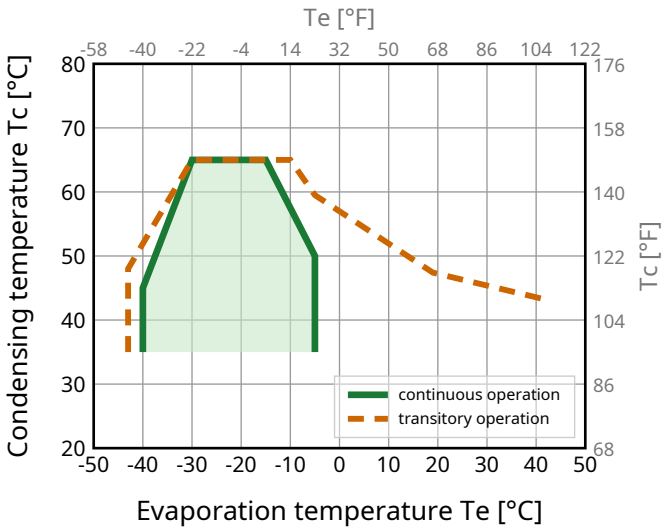
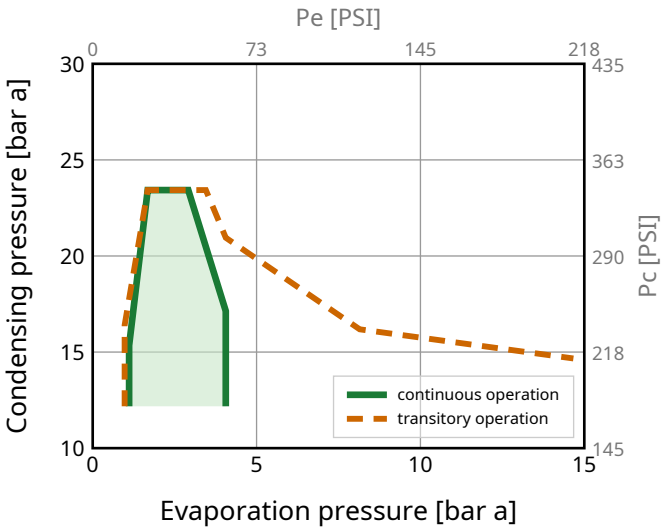
Components
a2 relay 117U7003
c start capacitor (80µF) 117U5015
b plastic cover 103N2010
d cord relief 103N1010

Alternative components
a2 relay 117U7053
c start capacitor (80µF) 117U5079
b plastic cover 103N2011

Operation Pressure Range





Model
NLE12.6CNL Configuration 1

Sales code:
105H6378

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	**613**	2092	527	**1.63**	5.56	376	2.25	6.23	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**460**	1568	395	**1.27**	4.33	362	2.19	5.76	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**354**	1209	305	**1.33**	4.55	266	1.87	4.07	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**496**	1693	427	**1.37**	4.66	363	2.20	6.89	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**661**	2257	569	**1.92**	6.54	345	2.13	6.72	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**339**	1156	291	**1.25**	4.28	270	1.89	3.82	**opt LBP**

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]
-40	-40	**259**	883	223	**1.11**	3.78	234	1.78	2.91
-35	-31	**339**	1156	291	**1.25**	4.28	270	1.89	3.82
-30	-22	**430**	1468	370	**1.41**	4.79	306	2.00	4.86
-25	-13	**536**	1830	461	**1.57**	5.35	342	2.12	6.08
-20	-4	**662**	2257	569	**1.75**	5.96	379	2.26	7.53
-15	5	**809**	2761	696	**1.94**	6.62	417	2.41	9.25
-10	14	**984**	3356	846	**2.15**	7.32	458	2.58	11.29
-5	23	**1188**	4053	1022	**2.36**	8.06	503	2.78	13.72

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

-40	-40	**216**	736	186	**0.91**	3.09	238	1.77	2.68
-35	-31	**287**	980	247	**1.03**	3.51	279	1.90	3.58
-30	-22	**367**	1253	316	**1.15**	3.91	320	2.04	4.59
-25	-13	**460**	1568	395	**1.27**	4.33	362	2.19	5.76
-20	-4	**568**	1939	489	**1.40**	4.77	406	2.36	7.15
-15	5	**697**	2377	599	**1.54**	5.25	453	2.55	8.81
-10	14	**849**	2896	730	**1.69**	5.76	503	2.76	10.79
-5	23	**1028**	3509	884	**1.84**	6.29	558	3.00	13.16

Model
NLE12.6CNL Configuration 2

Sales code:
105H6378

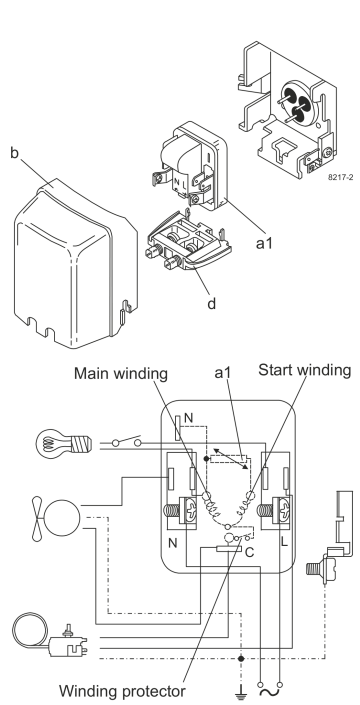
Configuration

Motor configuration	**eRSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R290**
Application	**LBP**
Voltage range	**198-254 V**
Starting torque	**LST**
Approvals	**VDE, CCC**
Starting device type	**e-PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
RLA (rated load amps / 1s/ U(N))	**-/-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

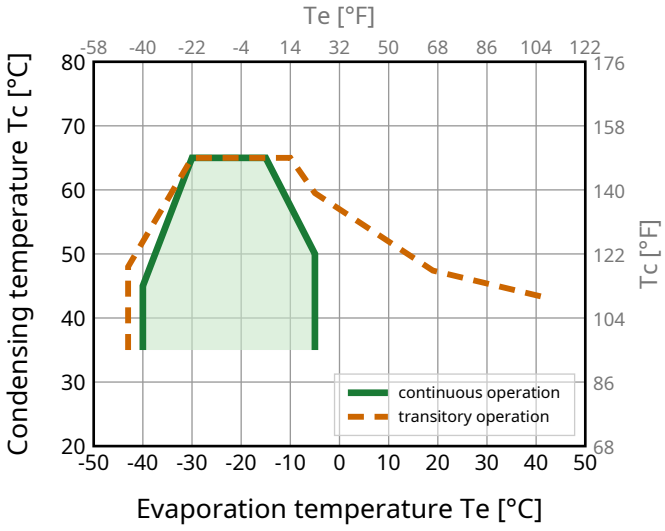
Electrical Accessories / Wiring Diagram

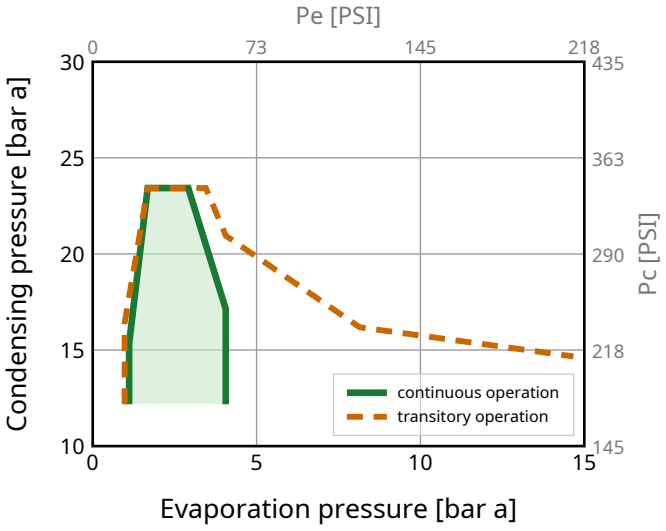


Components
a1 e-PTC starter (220V, 25Ohm, 4.8mm) 103N0050
b plastic cover 103N2010
d cord relief 103N1010

Alternative components
b plastic cover 103N2011

Operation Pressure Range





Model Sales code:

NLE12.6CNL Configuration 2 **105H6378**

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	**613**	2092	527	**1.63**	5.56	376	2.25	6.23	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**460**	1568	395	**1.27**	4.33	362	2.19	5.76	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**354**	1209	305	**1.33**	4.55	266	1.87	4.07	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**496**	1693	427	**1.37**	4.66	363	2.20	6.89	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**661**	2257	569	**1.92**	6.54	345	2.13	6.72	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**339**	1156	291	**1.25**	4.28	270	1.89	3.82	**opt LBP**

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]
-40	-40	**259**	883	223	**1.11**	3.78	234	1.78	2.91
-35	-31	**339**	1156	291	**1.25**	4.28	270	1.89	3.82
-30	-22	**430**	1468	370	**1.41**	4.79	306	2.00	4.86
-25	-13	**536**	1830	461	**1.57**	5.35	342	2.12	6.08
-20	-4	**662**	2257	569	**1.75**	5.96	379	2.26	7.53
-15	5	**809**	2761	696	**1.94**	6.62	417	2.41	9.25
-10	14	**984**	3356	846	**2.15**	7.32	458	2.58	11.29
-5	23	**1188**	4053	1022	**2.36**	8.06	503	2.78	13.72

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

-40	-40	**216**	736	186	**0.91**	3.09	238	1.77	2.68
-35	-31	**287**	980	247	**1.03**	3.51	279	1.90	3.58
-30	-22	**367**	1253	316	**1.15**	3.91	320	2.04	4.59
-25	-13	**460**	1568	395	**1.27**	4.33	362	2.19	5.76
-20	-4	**568**	1939	489	**1.40**	4.77	406	2.36	7.15
-15	5	**697**	2377	599	**1.54**	5.25	453	2.55	8.81
-10	14	**849**	2896	730	**1.69**	5.76	503	2.76	10.79
-5	23	**1028**	3509	884	**1.84**	6.29	558	3.00	13.16

Model
NLE12.6CNL Configuration 3

Sales code:
105H6378

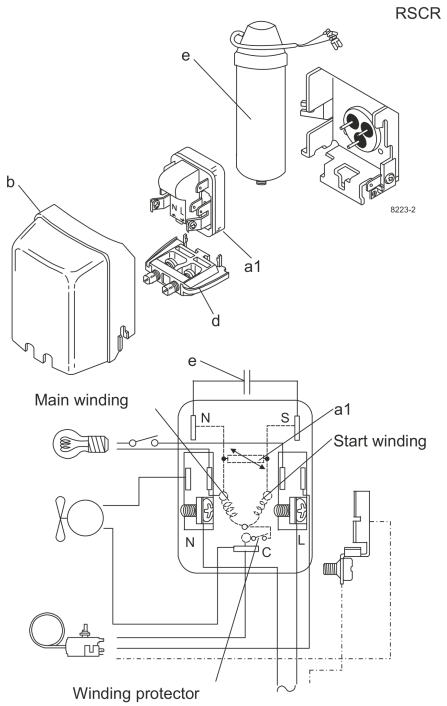
Configuration

Motor configuration	**eRSCR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R290**
Application	**LBP**
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))	**15.3 A**
RLA (rated load amps / 1s/ U(N))	**2.7 A**
Cut in current (U(N))	**19.2 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

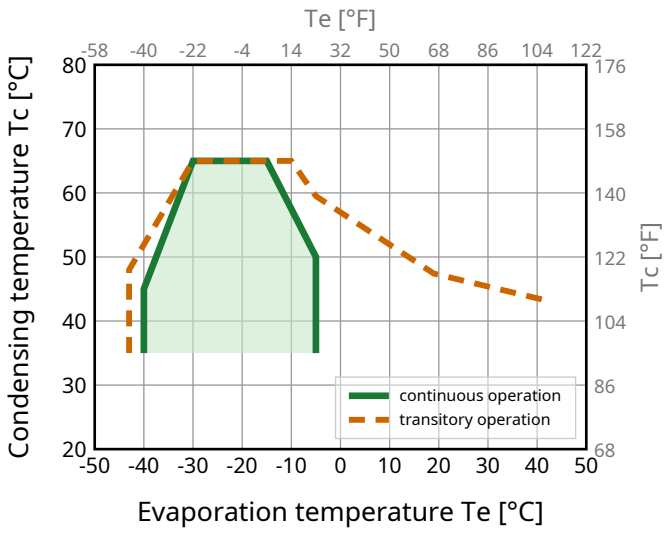
Electrical Accessories / Wiring Diagram

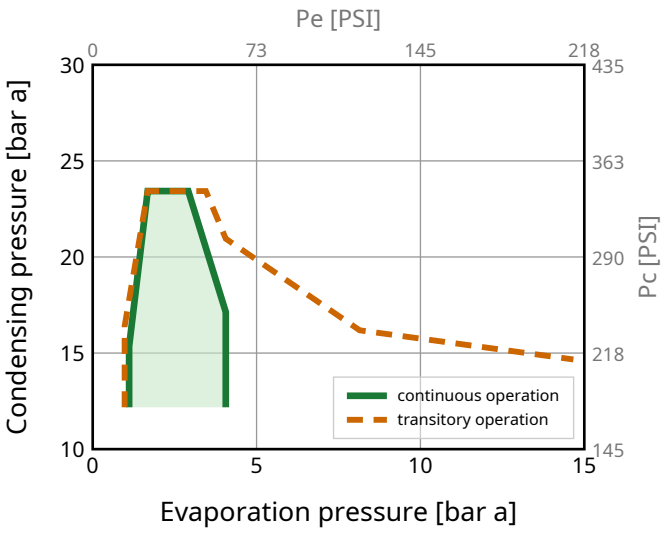


Components
a1 e-PTC starter (220V, 25Ohm, 4.8mm) 103N0050
e run capacitor (4µF, 4.8mm) 117-7119
b plastic cover 103N2010
d cord relief 103N1010
bracket for run capacitor 117-0300
screw M4x8mm 117-0301

Alternative components
b plastic cover 103N2011

Operation Pressure Range





Model

NLE12.6CNL Configuration 3

Sales code:

105H6378

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	**616**	2103	530	**1.70**	5.79	363	2.17	6.26	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**462**	1577	397	**1.32**	4.50	350	2.12	5.79	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**353**	1204	303	**1.39**	4.76	253	1.79	4.05	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**499**	1703	429	**1.42**	4.85	351	2.13	6.93	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**666**	2271	572	**1.99**	6.80	334	2.06	6.76	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**338**	1152	290	**1.31**	4.47	258	1.80	3.80	**opt LBP**

Performance Tables

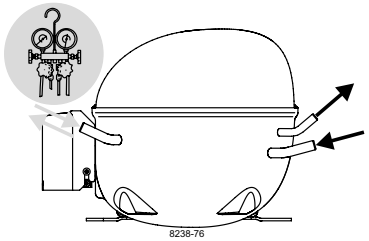
R290, 220 V/50 Hz, eRSCR, fan 3m/s

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]
-40	-40	**256**	872	220	**1.18**	4.02	217	1.66	2.87
-35	-31	**338**	1152	290	**1.31**	4.47	258	1.80	3.80
-30	-22	**431**	1470	371	**1.46**	4.98	295	1.93	4.87
-25	-13	**539**	1840	464	**1.63**	5.56	331	2.05	6.11
-20	-4	**666**	2273	573	**1.82**	6.22	366	2.18	7.58
-15	5	**815**	2781	701	**2.03**	6.94	401	2.32	9.31
-10	14	**990**	3376	851	**2.26**	7.70	438	2.47	11.36
-5	23	**1193**	4071	1026	**2.49**	8.50	479	2.65	13.78

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

-40	-40	**213**	727	183	**0.96**	3.29	221	1.65	2.65
-35	-31	**286**	976	246	**1.08**	3.67	266	1.81	3.56
-30	-22	**368**	1255	316	**1.19**	4.07	309	1.97	4.60
-25	-13	**462**	1577	397	**1.32**	4.50	350	2.12	5.79
-20	-4	**572**	1952	492	**1.46**	4.98	392	2.28	7.20
-15	5	**702**	2394	603	**1.61**	5.50	435	2.45	8.87
-10	14	**854**	2914	735	**1.77**	6.06	481	2.64	10.86
-5	23	**1033**	3525	888	**1.94**	6.63	531	2.86	13.22



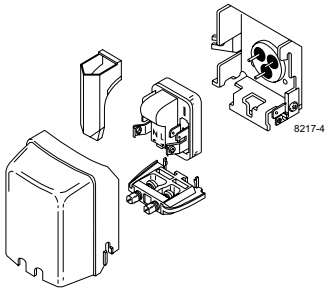
NL Compressors

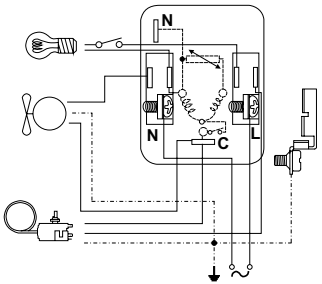
SECOP

Keep electrical equipment clear from oil, chemicals, and water

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

RSIR





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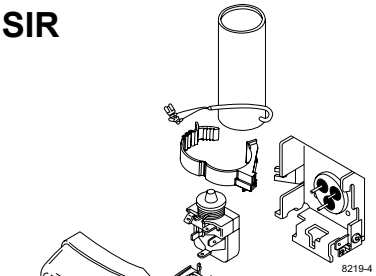

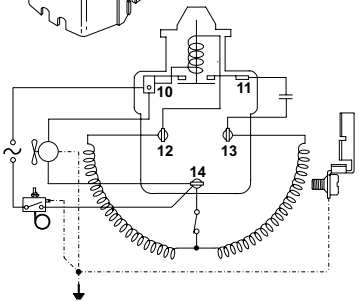

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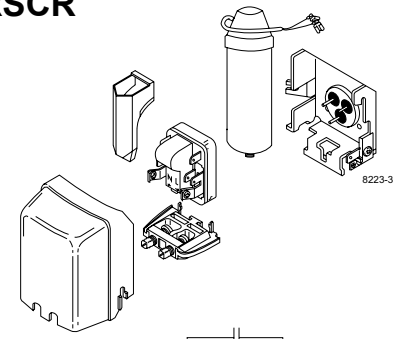
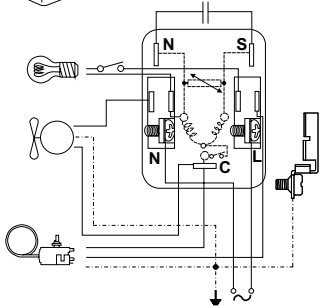
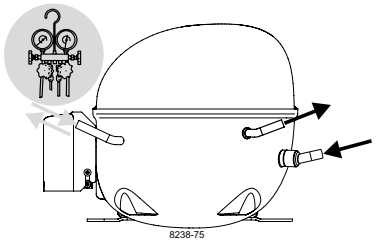






NL Compressors

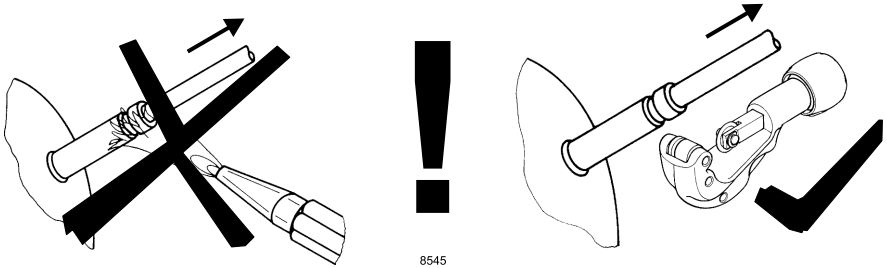
SECOP

Keep electrical equipment clear from oil, chemicals, and water

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

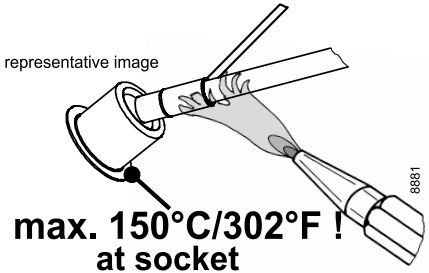
Service/Repair – R290, R600a, R170, R1270, R1234yf

(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**