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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Technical Data Compressor

SECOP

Model

Designation	**NLE8.8CN**	**220-240V/50Hz 1~**	Sales code:	**105H6880**

Compressor design

Oil type	Polyolester	Refrigerant(s)	**R290**
Oil viscosity	32cSt	Displacement	8,76cm³ / 0,53cu.in
Oil quantity	260cm³ / 8,8fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2360cm³ / 79,8fl.oz		
Weight	10,9kg / 24lbs		
Motor protection	1# internal		
Winding resistance main	9,28Ω (at 25°C)		
Winding resistance aux	11,64Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	120°C / 248°F		

General - Configurations with NLE8.8CN

	Conf. 1	**Conf. 2**	**Conf. 3**
Motor configuration	CSIR	eRSIR	eRSCR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1	1
Voltage range	198-254V	198-254V	198-254V
Approvals	VDE, CCC	VDE, CCC	VDE, CCC
Starting torque	HST	LST	LST
Note	- / -		

Applications with NLE8.8CN

	Conf. 1	**Conf. 2**	**Conf. 3**
Refrigerant	R290	R290	R290
Application	LBP+MBP	LBP+MBP	LBP+MBP
System cooling	fan 3m/s	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK	OK
Long interval pull down	OK	OK	OK

Electrical data - Configurations with NLE8.8CN

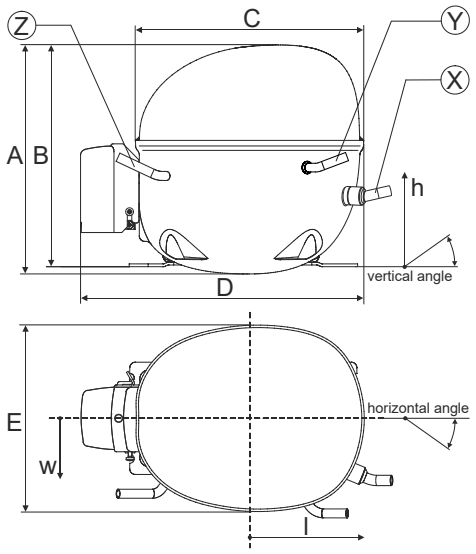
	Conf. 1	**Conf. 2**	**Conf. 3**
Starting device type	relay	e-PTC	e-PTC
Run capacitor	-/-	-/-	4µF
Start capacitor	80µF	-/-	-/-
LRA (locked rotor amps / 4s/ $U_{(N)}$)	11,3A	10,7A	10,1A
RLA (rated load amps / 1s/ $U_{(N)}$)	2,15A	2,15A	2,05A
Cut in current ($U_{(N)}$)	11,3A	15,9A	15,9A

Model

Designation **NLE8.8CN** **220-240V/50Hz 1~** Sales code: **105H6880**

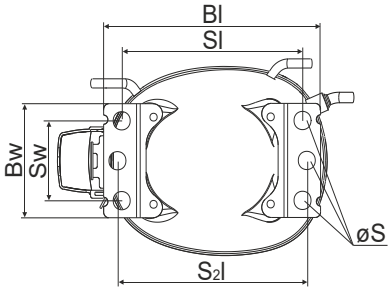
Compressor dimensions

Housing	A Height	203mm / 7,99in
	B Height	197mm / 7,76in
	C Length shell	205mm / 8,07in
	D Length w. cover	254mm / 10in
	E Width	166mm / 6,54in



Connectors		**Suction** X	**Discharge** Y	**Process** Z
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside)	[in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	15°	21°	155°
Position l/h/w	[mm]	132/69/57	94/102/81	-109/94/72
	[in]	5,2/2,7/2,2	3,7/4/3,2	-4,3/3,7/2,8
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

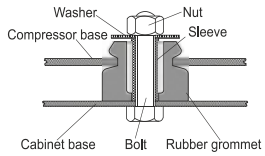
Compressor fixation



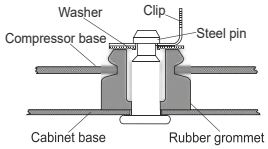
Baseplate	[mm]	[inch]
Bl	204	8.03
Bw	100	3.94

Small holes	[mm]	[inch]
Sl	170	6.7
Sw	70	2.76
S2l	178	7
øS	ø 16	ø 0.63

Bolt joint



Snap-on



Mounting accessories	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

Application notes

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

Model

Designation				
	NLE8.8CN	**220-240V/50Hz**	**Conf. 1**	Sales code: **105H6880**

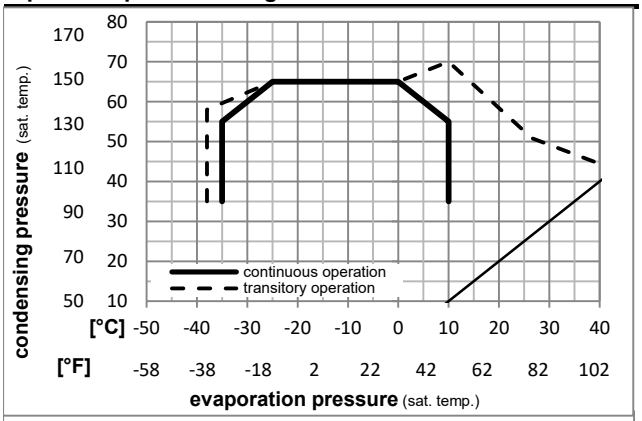
Configuration

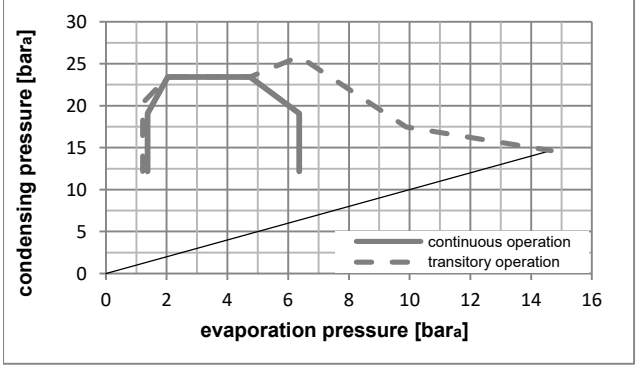
Motor configuration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE
	CCC

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

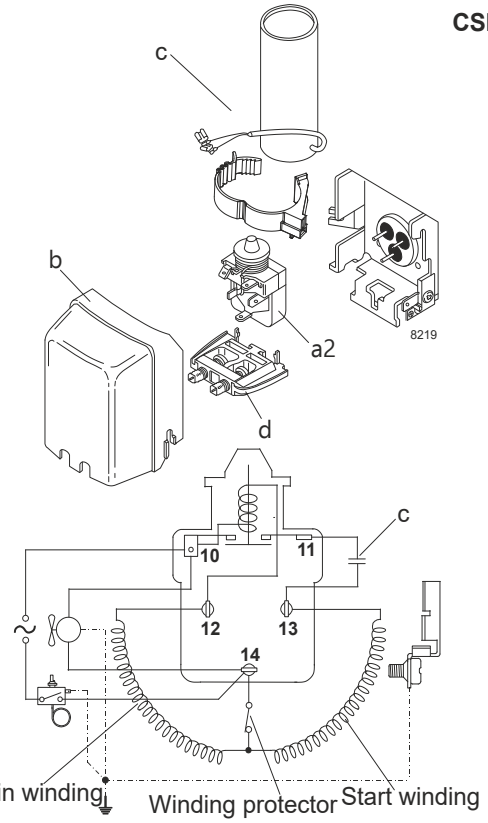
Operation pressure range





Electrical accessories / wiring diagram

CSIR



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

Model

Designation **NLE8.8CN** **220-240V/50Hz** **Conf. 1** Sales code: **105H6880**

Optimization + standard conditions R290, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC

	Evaporating pressure (saturation temperature) pe	Condensing pressure (saturation temperature) pc	Return gas temp. RGT	Liquid temp. Tliq	Cooling capacity [W]	[Btu/h]	[kcal/h]	COP [W/W]	EER [Btu/Wh]	[kcal/Wh]	Power consumption P1 [W]	Current consumption I [A]	Ref. mass flow ṁ [kg/h]	
[°C]	-23	54	32	32	429,7	1468	369,8	1,56	5,34	1,35	274,9	1,76	4,35	**ASHRAE LBP**
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	321,7	1099	276,9	1,22	4,16	1,05	264,4	1,73	4,01	**cecomaf LBP**
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	255,5	873	219,9	1,26	4,30	1,08	203,2	1,55	2,92	**EN12900 LBP**
[°F]	-31	104	68	104										
[°C]	-7	54	35	46	752,3	2569	647,4	1,98	6,75	1,70	380,8	2,15	8,58	**ASHRAE MBP**
[°F]	20	130	95	115										
[°C]	-10	55	32	55	598,8	2045	515,3	1,65	5,64	1,42	362,3	2,08	7,57	**cecomaf MBP**
[°F]	14	131	90	131										
[°C]	-10	45	20	45	669,9	2288	576,6	2,05	7,01	1,77	326,5	1,95	8,23	**EN12900 MBP**
[°F]	14	113	68	113										

Performance tables R290, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC

	pe [°C]	[°F]	Cooling capacity [W]	[Btu/h]	[kcal/h]	COP [W/W]	EER [Btu/Wh]	[kcal/Wh]	P1 [W]	I [A]	m [kg/h]
[°C / °F]	-35	-31	248,0	847	213,4	1,20	4,10	1,03	206,5	1,56	2,78
cond. pressure	-25	-13	384,8	1314	331,2	1,51	5,16	1,30	254,8	1,70	4,34
pc= 45/113	-15	5	576,2	1968	495,9	1,90	6,48	1,63	303,6	1,86	6,56
return gas temp.	-10	14	697,4	2382	600,2	2,14	7,29	1,84	326,5	1,95	7,98
RGT= 32/90	0	32	1001,2	3419	861,7	2,73	9,34	2,35	366,2	2,10	11,61
liquid temp	5	41	1187,9	4057	1022,3	3,11	10,63	2,68	381,8	2,16	13,90
Tliq= 45/113	10	50	1400,4	4783	1205,2	3,56	12,16	3,06	393,5	2,21	16,55
[°C / °F]	-35	-31	189,1	646	162,8	0,94	3,21	0,81	201,2	1,54	2,34
cond. pressure	-25	-13	321,7	1099	276,9	1,22	4,16	1,05	264,4	1,73	4,01
pc= 55/131	-15	5	493,3	1685	424,5	1,49	5,10	1,29	330,1	1,96	6,20
return gas temp	-10	14	598,8	2045	515,3	1,65	5,64	1,42	362,3	2,08	7,57
RGT= 32/90	0	32	859,5	2935	739,7	2,04	6,95	1,75	422,2	2,32	11,04
liquid temp	5	41	1018,8	3479	876,8	2,27	7,76	1,95	448,6	2,43	13,21
Tliq= 55/131	10	50	1200,1	4099	1032,8	2,54	8,69	2,19	471,7	2,53	15,74

Model

Designation				
	NLE8.8CN	**220-240V/50Hz**	**Conf. 2**	Sales code: **105H6880**

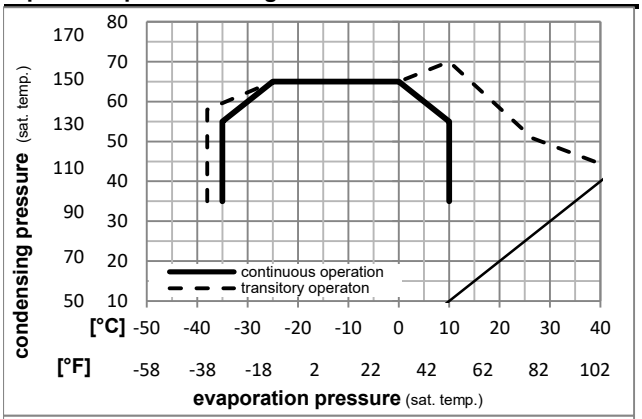
Configuration

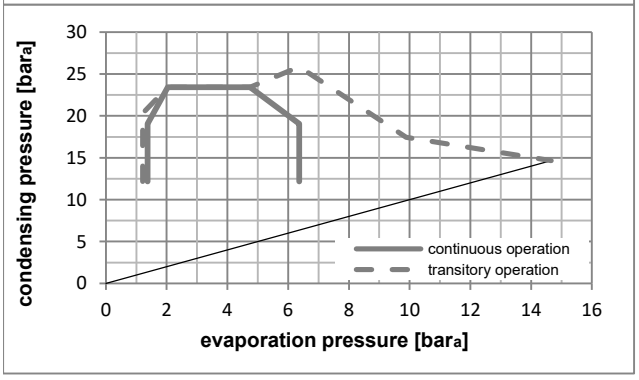
Motor configuration	eRSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-254V
Starting torque	LST
Approvals	VDE
	CCC

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

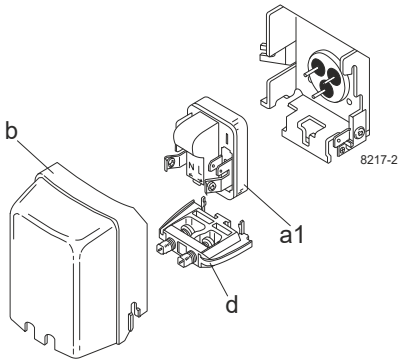
Operation pressure range

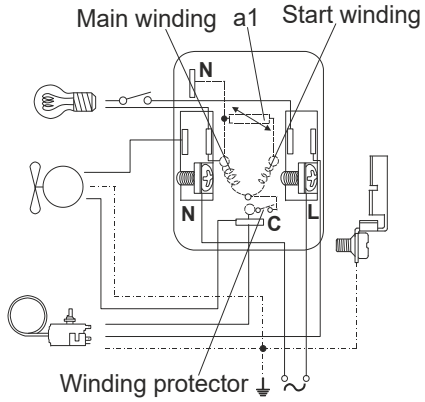




Electrical accessories / wiring diagram

RSIR





Components

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

Alternative components

b	plastic cover	103N2011

Model

Designation **NLE8.8CN** **220-240V/50Hz** **Conf. 2** Sales code: **105H6880**

Optimization + standard conditions R290, 220V/50Hz, eRSIR, fan 3m/s, VDE, CCC

	pe	pc	RGT	Tliq	Cooling capacity [W]	[Btu/h]	[kcal/h]	COP [W/W]	EER [Btu/Wh]	[kcal/Wh]	P1 [W]	I [A]	ṁ [kg/h]	
[°C]	-23	54	32	32	429,7	1468	369,8	1,56	5,34	1,35	274,9	1,76	4,35	**ASHRAE LBP**
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	321,7	1099	276,9	1,22	4,16	1,05	264,4	1,73	4,01	**cecomaf LBP**
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	255,5	873	219,9	1,26	4,30	1,08	203,2	1,55	2,92	**EN12900 LBP**
[°F]	-31	104	68	104										
[°C]	-7	54	35	46	752,3	2569	647,4	1,98	6,75	1,70	380,8	2,15	8,58	**ASHRAE MBP**
[°F]	20	130	95	115										
[°C]	-10	55	32	55	598,8	2045	515,3	1,65	5,64	1,42	362,3	2,08	7,57	**cecomaf MBP**
[°F]	14	131	90	131										
[°C]	-10	45	20	45	669,9	2288	576,6	2,05	7,01	1,77	326,5	1,95	8,23	**EN12900 MBP**
[°F]	14	113	68	113										

Performance tables R290, 220V/50Hz, eRSIR, fan 3m/s, VDE, CCC

	pe [°C]	pe [°F]	Cooling capacity [W]	[Btu/h]	[kcal/h]	COP [W/W]	EER [Btu/Wh]	[kcal/Wh]	P1 [W]	I [A]	m [kg/h]
[°C / °F]	-35	-31	248,0	847	213,4	1,20	4,10	1,03	206,5	1,56	2,78
cond. pressure	-25	-13	384,8	1314	331,2	1,51	5,16	1,30	254,8	1,70	4,34
pc= 45/113	-15	5	576,2	1968	495,9	1,90	6,48	1,63	303,6	1,86	6,56
return gas temp.	-10	14	697,4	2382	600,2	2,14	7,29	1,84	326,5	1,95	7,98
RGT= 32/90	0	32	1001,2	3419	861,7	2,73	9,34	2,35	366,2	2,10	11,61
liquid temp	5	41	1187,9	4057	1022,3	3,11	10,63	2,68	381,8	2,16	13,90
Tliq= 45/113	10	50	1400,4	4783	1205,2	3,56	12,16	3,06	393,5	2,21	16,55
[°C / °F]	-35	-31	189,1	646	162,8	0,94	3,21	0,81	201,2	1,54	2,34
cond. pressure	-25	-13	321,7	1099	276,9	1,22	4,16	1,05	264,4	1,73	4,01
pc= 55/131	-15	5	493,3	1685	424,5	1,49	5,10	1,29	330,1	1,96	6,20
return gas temp	-10	14	598,8	2045	515,3	1,65	5,64	1,42	362,3	2,08	7,57
RGT= 32/90	0	32	859,5	2935	739,7	2,04	6,95	1,75	422,2	2,32	11,04
liquid temp	5	41	1018,8	3479	876,8	2,27	7,76	1,95	448,6	2,43	13,21
Tliq= 55/131	10	50	1200,1	4099	1032,8	2,54	8,69	2,19	471,7	2,53	15,74

Model

Designation				
	NLE8.8CN	**220-240V/50Hz**	**Conf. 3**	Sales code: **105H6880**

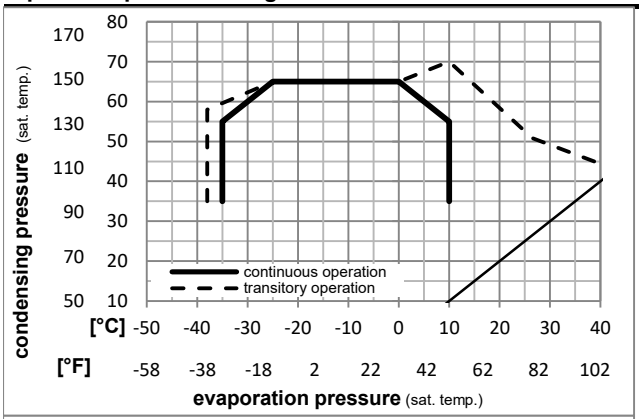
Configuration

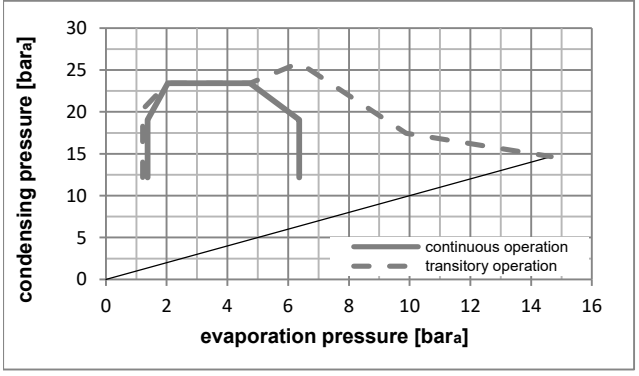
Motor configuration	eRSCR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-254V
Starting torque	LST
Approvals	VDE
	CCC

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

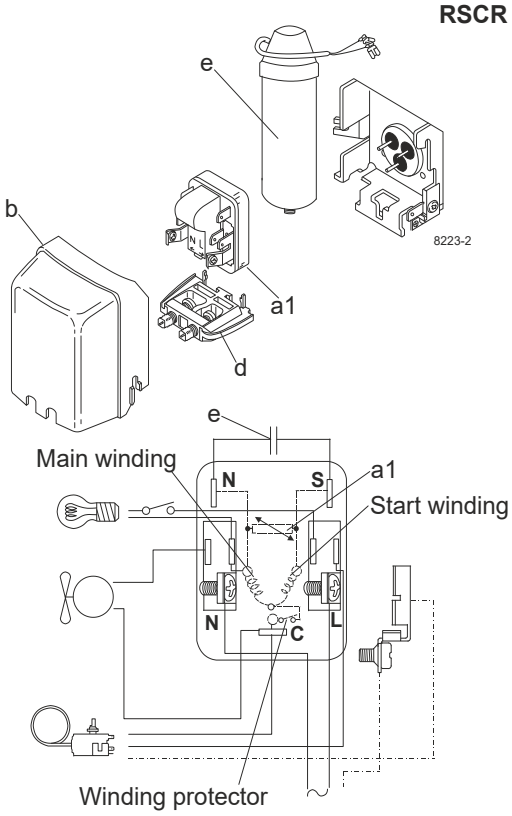
Operation pressure range





Electrical accessories / wiring diagram

RSCR



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

Model

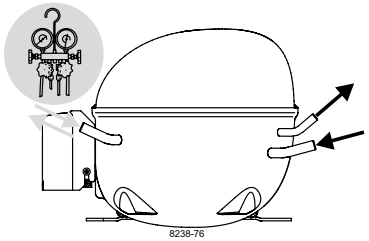
Designation **NLE8.8CN** **220-240V/50Hz** **Conf. 3** Sales code: **105H6880**

Optimization + standard conditions R290, 220V/50Hz, eRSCR, fan 3m/s, VDE, CCC

	Evaporating pressure (saturation temperature) pe	Condensing pressure (saturation temperature) pc	Return gas temp. RGT	Liquid temp. Tliq	Cooling capacity [W]	Cooling capacity [Btu/h]	Cooling capacity [kcal/h]	COP [W/W]	EER [Btu/Wh]	EER [kcal/Wh]	Power consumption P1 [W]	Current consumption I [A]	Ref. mass flow ṁ [kg/h]	
[°C]	-23	54	32	32	434,0	1482	373,5	1,64	5,62	1,42	263,8	1,46	4,40	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	324,9	1110	279,6	1,28	4,37	1,10	253,8	1,43	4,05	cecomaf LBP
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	258,1	881	222,1	1,32	4,49	1,13	196,2	1,30	2,95	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-7	54	35	46	759,8	2595	653,9	2,08	7,10	1,79	365,6	1,89	8,67	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	-10	55	32	55	604,8	2065	520,5	1,74	5,94	1,50	347,8	1,80	7,65	cecomaf MBP
[°F]	14	131	90	131										
[°C]	-10	45	20	45	676,6	2311	582,3	2,15	7,33	1,85	315,1	1,70	8,31	EN12900 MBP
[°F]	14	113	68	113										

Performance tables R290, 220V/50Hz, eRSCR, fan 3m/s, VDE, CCC

	pe [°C]	pe [°F]	Cooling capacity [W]	Cooling capacity [Btu/h]	Cooling capacity [kcal/h]	COP [W/W]	EER [Btu/Wh]	EER [kcal/Wh]	P1 [W]	I [A]	m [kg/h]
[°C / °F]	-35	-31	250,5	855	215,6	1,26	4,30	1,08	198,8	1,31	2,81
cond. pressure	-25	-13	388,7	1327	334,5	1,58	5,41	1,36	245,3	1,42	4,38
pc= 45/113	-15	5	582,0	1988	500,8	1,99	6,79	1,71	292,7	1,60	6,62
return gas temp.	-10	14	704,4	2406	606,2	2,24	7,64	1,92	315,1	1,70	8,06
RGT= 32/90	0	32	1011,2	3454	870,3	2,86	9,76	2,46	353,7	1,89	11,73
liquid temp	5	41	1199,8	4097	1032,5	3,26	11,12	2,80	368,6	1,97	14,04
Tliq= 45/113	10	50	1414,4	4831	1217,3	3,73	12,72	3,21	379,7	2,02	16,71
[°C / °F]	-35	-31	191,0	652	164,4	0,99	3,37	0,85	193,5	1,26	2,36
cond. pressure	-25	-13	324,9	1110	279,6	1,28	4,37	1,10	253,8	1,43	4,05
pc= 55/131	-15	5	498,2	1701	428,8	1,57	5,37	1,35	316,9	1,67	6,26
return gas temp	-10	14	604,8	2065	520,5	1,74	5,94	1,50	347,8	1,80	7,65
RGT= 32/90	0	32	868,1	2965	747,1	2,14	7,32	1,85	404,9	2,07	11,15
liquid temp	5	41	1029,0	3514	885,6	2,39	8,18	2,06	429,7	2,18	13,34
Tliq= 55/131	10	50	1212,1	4140	1043,2	2,69	9,18	2,31	451,1	2,28	15,89



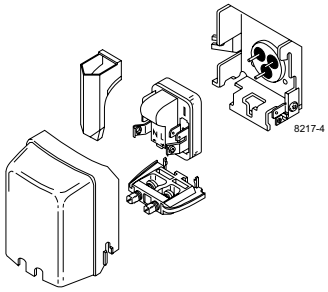
NL Compressors

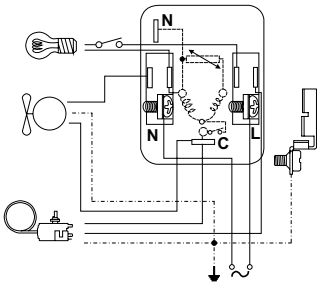
SECOP

Keep electrical equipment clear from oil, chemicals, and water

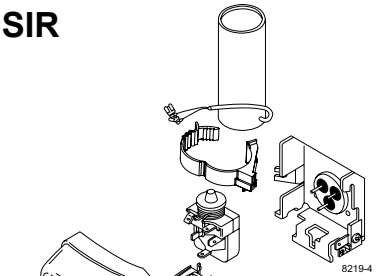
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

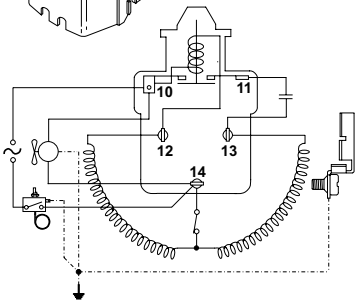
RSIR



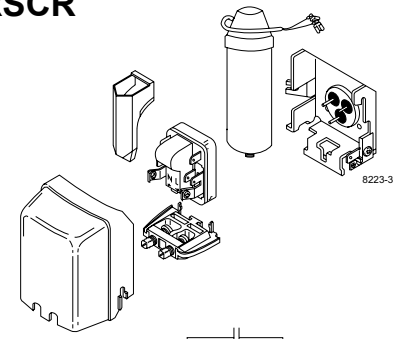


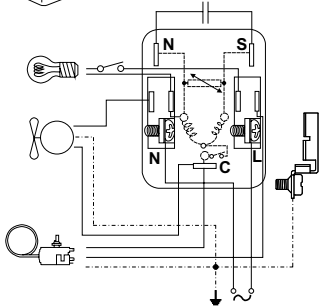
CSIR

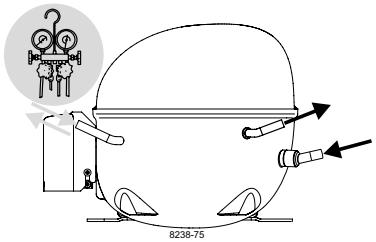




RSCR







NL Compressors

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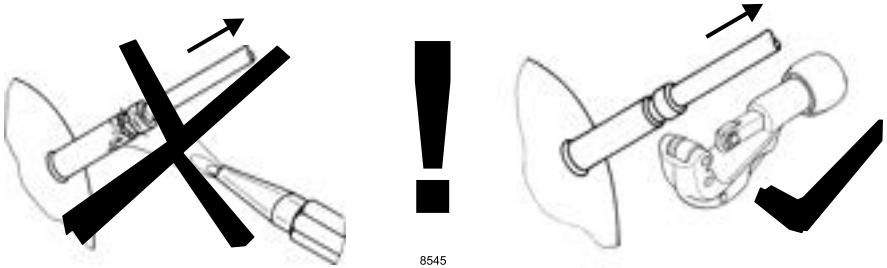
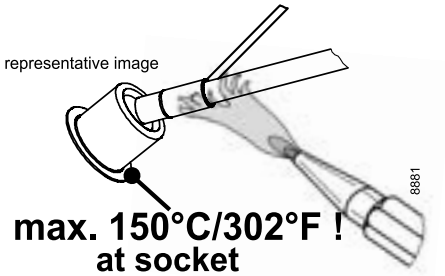
Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)



Brazing on Suction Connectors (Direct Intake)



! 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**