Technical Data Compressor

Model

Designation	**NLE8.0CN**	**115-127V/60Hz 1~**	Sales code:	**105H6093**

Compressor design

Oil type	Polyolester	Refrigerant(s)	**R290**
Oil viscosity	32cSt	Displacement	7,96cm³ / 0,49cu.in
Oil quantity	300cm³ / 10,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	150g / 5,3oz		
Free gas volume comp.	2360cm³ / 79,8fl.oz		
Weight	10,95kg / 24,1lbs		
Motor protection	1# internal		
Winding resistance main	1,99Ω (at 25°C)		
Winding resistance aux	6,22Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	120°C / 248°F		

General - Configurations with NLE8.0CN

	Conf. 1	**Conf. 2**	**Conf. 3**
Motorconfiguration	CSIR	RSIR	RSCR
Power supply (nominal)	115V/60Hz	115V/60Hz	115V/60Hz
Number of phases	1	1	1
Voltage range	95-135V	95-135V	95-135V
Approvals	UL, CCC	UL, CCC	UL, CCC
Starting torque	HST	LST	LST
Note	- / -		

Applications with NLE8.0CN

	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 NLE8.0CN

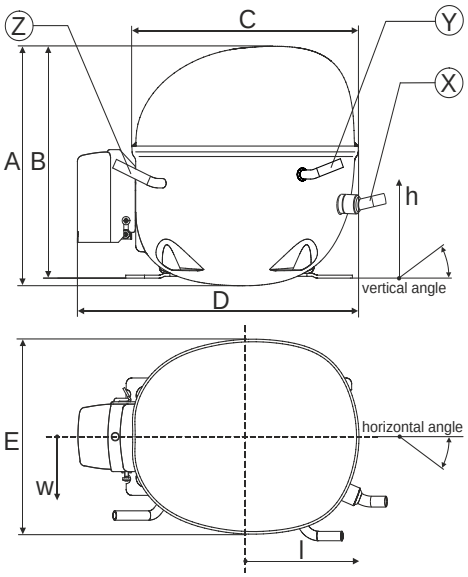
	Conf. 1	**Conf. 2**	**Conf. 3**
Starting device type	relay	PTC	PTC
Run capacitor	0µF	0µF	20µF
Start capacitor	240µF	0µF	0µF
LRA (locked rotor amps / 4s)	23,1A	22,7A	22,7A
RLA (rated load amps / 1s)	4,3A	4,3A	3,88A
Cut in current	23,1A	23,2A	23,2A
IP class	21	21	21

Model

Designation **NLE8.0CN** **115-127V/60Hz 1~** Sales code: **105H6093**

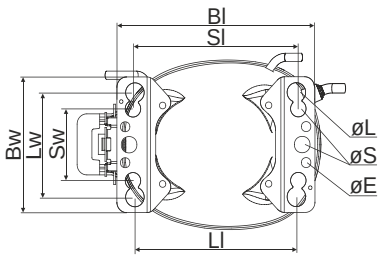
Compressor dimensions

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**	**Discharge**	**Process**
		X	**Y**	**Z**
Diameter	[mm]	øi 8,11-8,29	øi 6,41-6,59	øi 6,41-6,59
(i:inside, o:outside)	[in]	øi 0,32-0,33	øi 0,25-0,26	øi 0,25-0,26
Material		copper	copper	copper
Horizontal angle	±2°	22°	0°	0
Vertical angle	±2°	45°	35°	155°
Position l/h/w	[mm]	128/79/61	88/95/85	-112/97/68
	[in]	5/3,1/2,4	3,5/3,7/3,3	-4,4/3,8/2,7
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

Compressor fixation

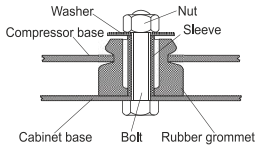


Baseplate	[mm]	[inch]
Bl	204	8.03
Bw	132	5.2
øE	ø 9.7	ø 0.38

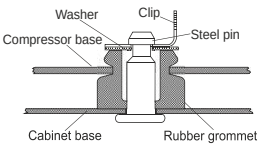
Large holes	[mm]	[inch]
Ll	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75

Small holes	[mm]	[inch]
Sl	170	6.7
Sw	70	2.76
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	
Bolt joint | ø1/4" | ø19mm	118-1949	
Snap-on | ø7,3 | ø16mm	118-1947	118-1919

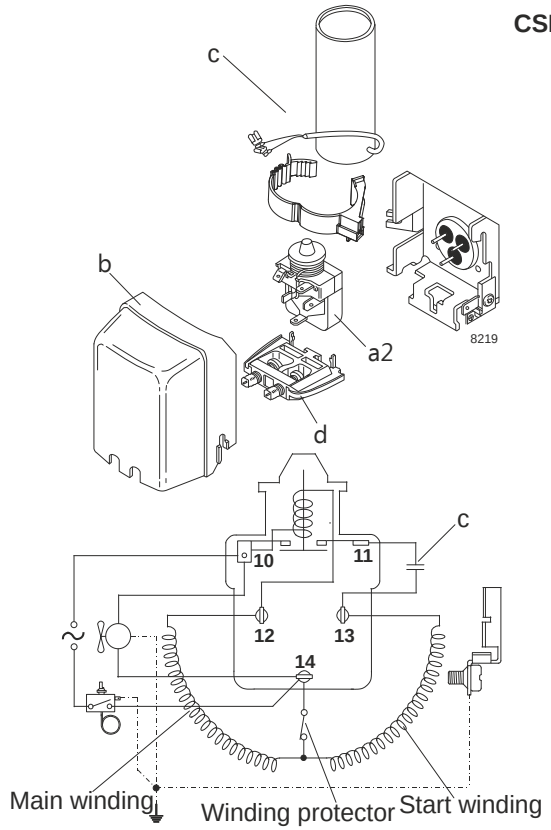
Model

Designation	NLE8.0CN	115V/60Hz	Conf. 1	Sales code:	105H6093

Configuration

Motorconfiguration	CSIR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	95-135V
Starting torque	HST
Approvals	UL SA3693
	CCC

Electrical accessories / wiring diagram

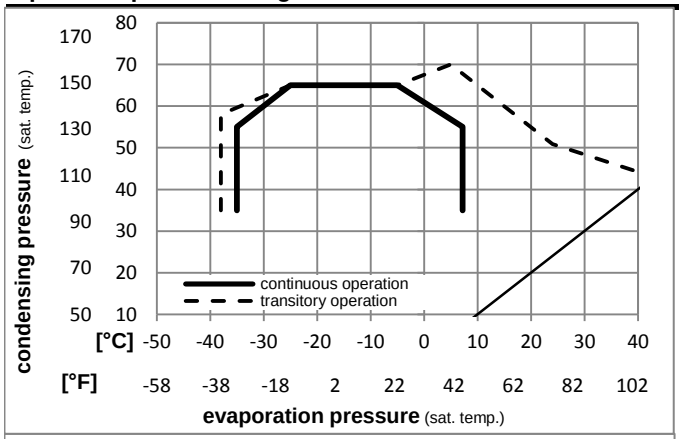


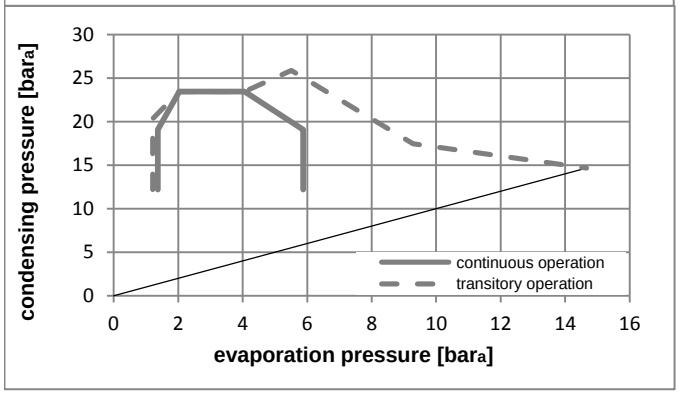
Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	fan 3m/s	n/a
38°C / 100°F	fan 3m/s	fan 3m/s	n/a
43°C / 110°F	fan 3m/s	fan 3m/s	n/a

Operation pressure range





Components:

a2	relay	117U7013
c	start capacitor (240µF)	117U5023
b	plastic cover	103N2011
d	cord relief	103N1010

Model

Designation **NLE8.0CN** **115V/60Hz** **Conf. 1** Sales code: **105H6093**

Optimization + standard conditions 115V/60Hz 1~, CSIR, fan 3m/s, UL, CCC

	Evaporating pressure (saturation temperature)	Condensing pressure (saturation temperature)	Return gas temp.	Liquid temp.	Cooling capacity			COP	EER		Power consumption P1	Current consumption I	Ref. mass flow ṁ	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23,3	54,4	32,2	32,2	452,8	1546	389,7	1,57	5,36	1,35	288,4	3,52	4,59	**ASHRAE LBP**
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	339,0	1158	291,7	1,22	4,16	1,05	278,3	3,45	4,22	**cecomaf LBP**
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	267,8	915	230,5	1,24	4,25	1,07	215,5	3,11	3,06	**EN12900 LBP**
[°F]	-31	104	68	104										
[°C]	-6,66	54,4	35	46,1	807,2	2757	694,7	2,07	7,08	1,78	389,5	4,26	9,21	**ASHRAE MBP**
[°F]	20	130	95	115										
[°C]	-10	55	32	55	639,9	2185	550,7	1,72	5,88	1,48	371,7	4,12	8,09	**cecomaf MBP**
[°F]	14	131	89,6	131										
[°C]	-10	45	20	45	718,2	2453	618,1	2,10	7,17	1,81	342,2	3,92	8,82	**EN12900 MBP**
[°F]	14	113	68	113										

Performance tables 115V/60Hz 1~, CSIR, fan 3m/s, UL, CCC

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	252,3	861	217,1	1,16	3,97	1,00	216,7	3,12	2,83
cond. pressure	-23,3	-10	437,5	1494	376,5	1,57	5,37	1,35	278,4	3,47	4,94
pc= 45/113	-15	5	615,8	2103	529,9	1,93	6,59	1,66	319,3	3,75	7,01
return gas temp.	-9,4	15	763,6	2608	657,2	2,22	7,57	1,91	344,6	3,94	8,74
RGT= 32/90	-3,9	25	939,5	3208	808,5	2,55	8,72	2,20	368,0	4,12	10,83
liquid temp	0	32	1081,3	3693	930,6	2,82	9,64	2,43	383,1	4,23	12,54
Tliq= 45/113	7,2	45	1391,2	4751	1197,3	3,41	11,65	2,94	407,8	4,41	16,35
[°C / °F]	-35	-31	196,1	670	168,7	0,92	3,14	0,79	213,2	3,07	2,42
cond. pressure	-23,3	-10	366,3	1251	315,2	1,27	4,33	1,09	289,0	3,52	4,57
pc= 55/131	-15	5	524,1	1790	451,0	1,54	5,24	1,32	341,4	3,89	6,59
return gas temp	-9,4	15	653,9	2233	562,7	1,74	5,95	1,50	375,0	4,15	8,28
RGT= 32/90	-3,9	25	808,0	2760	695,4	1,98	6,78	1,71	407,3	4,40	10,31
liquid temp	0	32	932,6	3185	802,6	2,17	7,43	1,87	428,8	4,57	11,98
Tliq= 55/131	7,2	45	1205,7	4118	1037,6	2,59	8,83	2,22	466,4	4,87	15,71

Model

Designation			Sales code:
	NLE8.0CN 115V/60Hz	**Conf. 2**	**105H6093**

Configuration

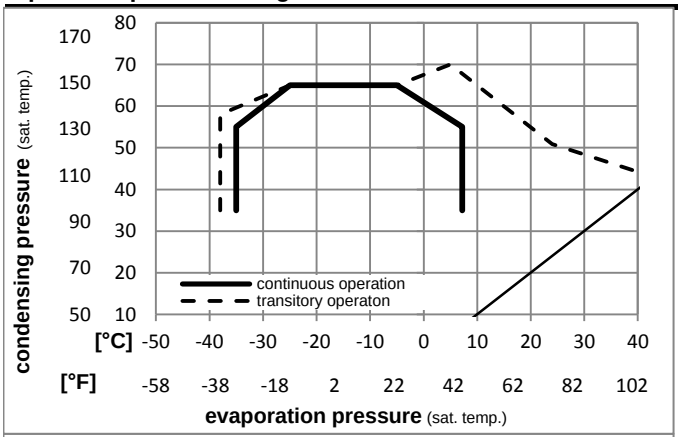
Motorconfiguration	RSIR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	95-135V
Starting torque	LST
Approvals	UL SA3693
	CCC

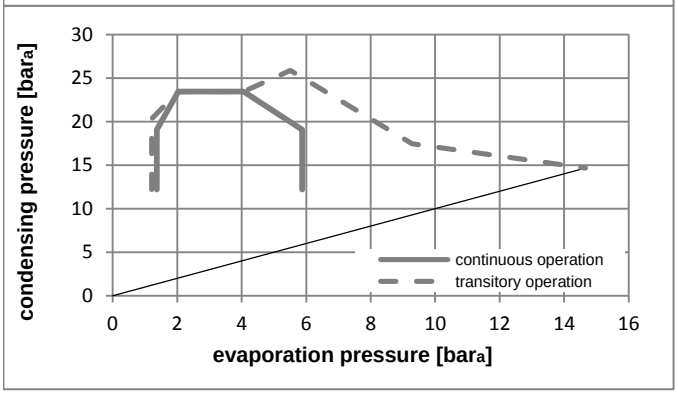
Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	fan 3m/s	n/a
38°C / 100°F	fan 3m/s	fan 3m/s	n/a
43°C / 110°F	fan 3m/s	fan 3m/s	n/a

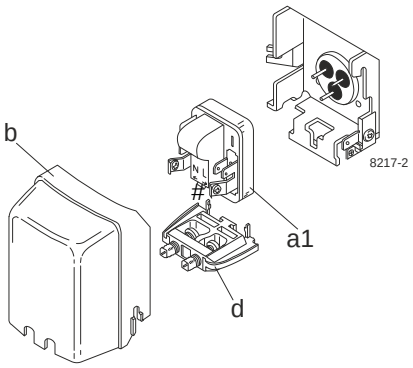
Operation pressure range

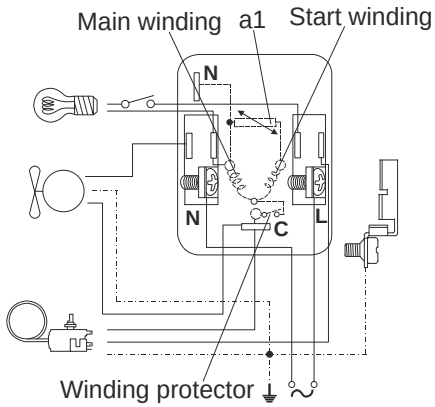




Electrical accessories / wiring diagram

RSIR





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
b	plastic cover	103N2011
d	cord relief	103N1010

Model

Designation **NLE8.0CN** **115V/60Hz** **Conf. 2** Sales code: **105H6093**

Optimization + standard conditions 115V/60Hz 1~, RSIR, fan 3m/s, UL, CCC

	Evaporating pressure (saturation temperature)	Condensing pressure (saturation temperature)	Return gas temp.	Liquid temp.	Cooling capacity			COP	EER		Power consumption P1	Current consumption I	Ref. mass flow ṁ	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23,3	54,4	32,2	32,2	452,8	1546	389,7	1,57	5,36	1,35	288,4	3,52	4,59	**ASHRAE LBP**
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	339,0	1158	291,7	1,22	4,16	1,05	278,3	3,45	4,22	**cecomaf LBP**
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	267,8	915	230,5	1,24	4,25	1,07	215,5	3,11	3,06	**EN12900 LBP**
[°F]	-31	104	68	104										
[°C]	-6,66	54,4	35	46,1	807,2	2757	694,7	2,07	7,08	1,78	389,5	4,26	9,21	**ASHRAE MBP**
[°F]	20	130	95	115										
[°C]	-10	55	32	55	639,9	2185	550,7	1,72	5,88	1,48	371,7	4,12	8,09	**cecomaf MBP**
[°F]	14	131	89,6	131										
[°C]	-10	45	20	45	718,2	2453	618,1	2,10	7,17	1,81	342,2	3,92	8,82	**EN12900 MBP**
[°F]	14	113	68	113										

Performance tables 115V/60Hz 1~, RSIR, fan 3m/s, UL, CCC

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	252,3	861	217,1	1,16	3,97	1,00	216,7	3,12	2,83
cond. pressure	-23,3	-10	437,5	1494	376,5	1,57	5,37	1,35	278,4	3,47	4,94
pc= 45/113	-15	5	615,8	2103	529,9	1,93	6,59	1,66	319,3	3,75	7,01
return gas temp.	-9,4	15	763,6	2608	657,2	2,22	7,57	1,91	344,6	3,94	8,74
RGT= 32/90	-3,9	25	939,5	3208	808,5	2,55	8,72	2,20	368,0	4,12	10,83
liquid temp	0	32	1081,3	3693	930,6	2,82	9,64	2,43	383,1	4,23	12,54
Tliq= 45/113	7,2	45	1391,2	4751	1197,3	3,41	11,65	2,94	407,8	4,41	16,35
[°C / °F]	-35	-31	196,1	670	168,7	0,92	3,14	0,79	213,2	3,07	2,42
cond. pressure	-23,3	-10	366,3	1251	315,2	1,27	4,33	1,09	289,0	3,52	4,57
pc= 55/131	-15	5	524,1	1790	451,0	1,54	5,24	1,32	341,4	3,89	6,59
return gas temp	-9,4	15	653,9	2233	562,7	1,74	5,95	1,50	375,0	4,15	8,28
RGT= 32/90	-3,9	25	808,0	2760	695,4	1,98	6,78	1,71	407,3	4,40	10,31
liquid temp	0	32	932,6	3185	802,6	2,17	7,43	1,87	428,8	4,57	11,98
Tliq= 55/131	7,2	45	1205,7	4118	1037,6	2,59	8,83	2,22	466,4	4,87	15,71

Model

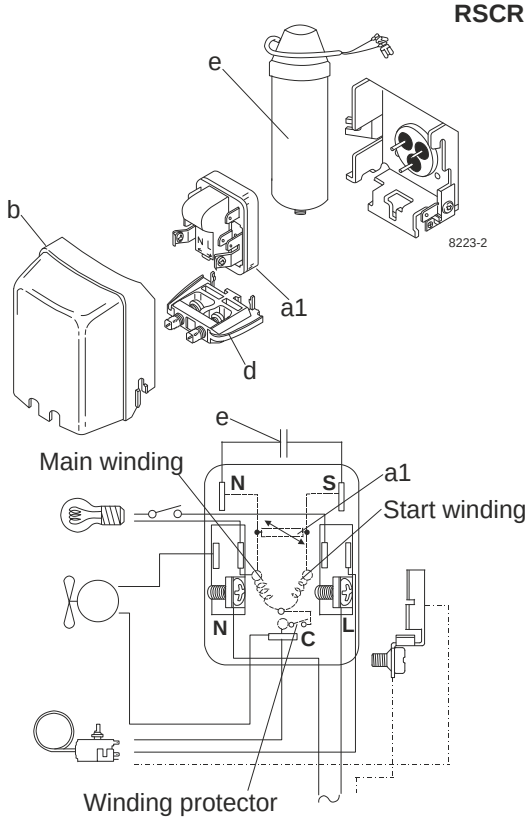
Designation	NLE8.0CN	115V/60Hz	Conf. 3	Sales code:	105H6093

Configuration

Motorconfiguration	RSCR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	95-135V
Starting torque	LST
Approvals	UL SA3693
	CCC

Electrical accessories / wiring diagram

RSCR

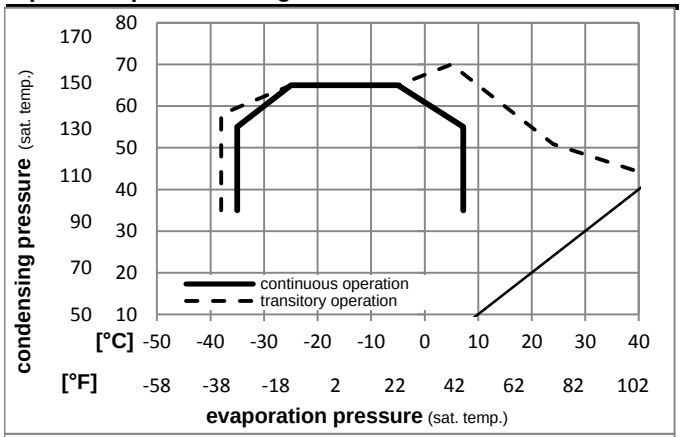


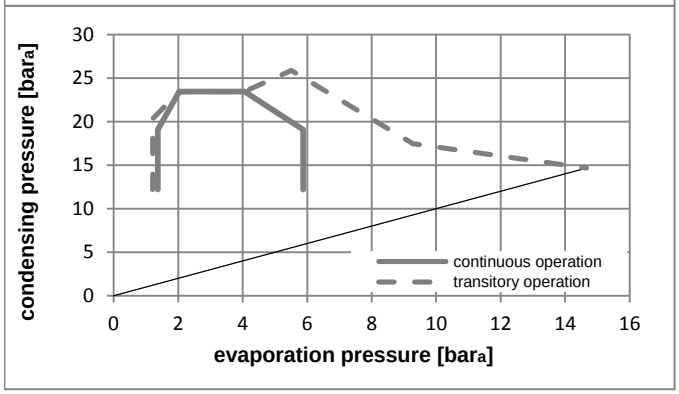
Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	fan 3m/s	n/a
38°C / 100°F	fan 3m/s	fan 3m/s	n/a
43°C / 110°F	fan 3m/s	fan 3m/s	n/a

Operation pressure range





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

Model

Designation **NLE8.0CN** **115V/60Hz** **Conf. 3** Sales code: **105H6093**

Optimization + standard conditions 115V/60Hz 1~, RSCR, fan 3m/s, UL, CCC

	Evaporating pressure (saturation temperature)	Condensing pressure (saturation temperature)	Return gas temp.	Liquid temp.	Cooling capacity			COP	EER		Power consumption P1	Current consumption I	Ref. mass flow ṁ	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23,3	54,4	32,2	32,2	463,5	1583	398,9	1,70	5,81	1,46	272,5	3,32	4,69	**ASHRAE LBP**
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	346,8	1184	298,5	1,32	4,50	1,13	263,2	3,26	4,32	**cecomaf LBP**
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	272,2	929	234,2	1,32	4,52	1,14	205,5	2,97	3,11	**EN12900 LBP**
[°F]	-31	104	68	104										
[°C]	-6,66	54,4	35	46,1	823,4	2812	708,7	2,27	7,74	1,95	363,2	3,98	9,39	**ASHRAE MBP**
[°F]	20	130	95	115										
[°C]	-10	55	32	55	653,8	2233	562,6	1,88	6,42	1,62	347,8	3,86	8,27	**cecomaf MBP**
[°F]	14	131	89,6	131										
[°C]	-10	45	20	45	733,7	2506	631,4	2,29	7,83	1,97	320,1	3,67	9,01	**EN12900 MBP**
[°F]	14	113	68	113										

Performance tables 115V/60Hz 1~, RSCR, fan 3m/s, UL, CCC

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	256,4	876	220,7	1,24	4,24	1,07	206,6	2,97	2,87
cond. pressure	-23,3	-10	447,8	1529	385,4	1,70	5,82	1,47	263,0	3,27	5,06
pc= 45/113	-15	5	630,1	2152	542,3	2,10	7,18	1,81	299,9	3,52	7,17
return gas temp.	-9,4	15	780,0	2664	671,2	2,42	8,27	2,08	322,2	3,68	8,93
RGT= 32/90	-3,9	25	956,8	3268	823,4	2,80	9,55	2,41	342,3	3,83	11,03
liquid temp	0	32	1098,7	3752	945,5	3,10	10,58	2,67	354,7	3,92	12,74
Tliq= 45/113	7,2	45	1406,5	4803	1210,4	3,76	12,85	3,24	373,9	4,04	16,52
[°C / °F]	-35	-31	199,4	681	171,6	0,98	3,35	0,85	203,1	2,93	2,47
cond. pressure	-23,3	-10	374,9	1280	322,6	1,37	4,69	1,18	273,0	3,33	4,67
pc= 55/131	-15	5	536,4	1832	461,6	1,67	5,71	1,44	320,7	3,66	6,74
return gas temp	-9,4	15	667,9	2281	574,8	1,90	6,50	1,64	350,7	3,88	8,46
RGT= 32/90	-3,9	25	823,0	2811	708,3	2,17	7,42	1,87	378,8	4,09	10,50
liquid temp	0	32	947,5	3236	815,5	2,39	8,15	2,05	397,1	4,23	12,17
Tliq= 55/131	7,2	45	1218,6	4162	1048,8	2,85	9,73	2,45	427,8	4,46	15,88