

Model

Designation	NLE8.0CN	115-127V/60Hz 1~	Sales code:	105H6074
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	32cST	Displacement	7,96cm ³ / 0,49cu.in
Oil quantity	268cm ³ / 9,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	150g / 5,3oz		
Free gas volume comp.	2360cm ³ / 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.	130°C / 266°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	CCC, UL	CCC, UL	CCC, UL
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

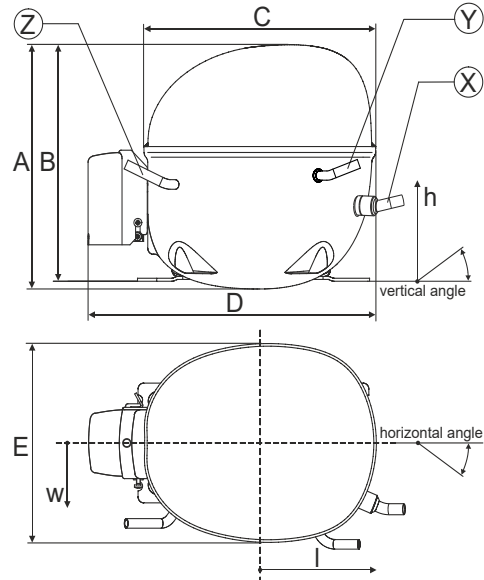
	Conf. 1	Conf. 2	Conf. 3
Starting device type	relay	PTC	PTC
Run capacitor	- / -	- / -	20μF
Start capacitor	240μF	- / -	- / -
LRA (locked rotor amps / 4s)	23,1A	22,7A	22,7A
RLA (rated load amps / 1s)	4,3A	4,3A	3,88A
Cut in current	23,1A	23,2A	23,2A

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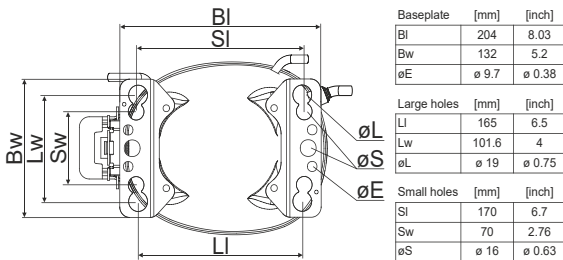
Compressor dimensions

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

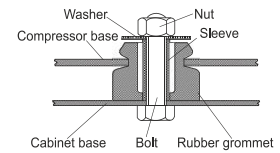


Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,41-6,59	øi 6,41-6,59
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,25-0,26	øi 0,25-0,26
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	15°	15°	155°
Position l/h/w	[mm]	132/69/56	94/99/86	-111/92/72
	[in]	5,2/2,7/2,2	3,7/3,9/3,4	-4,4/3,6/2,8
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

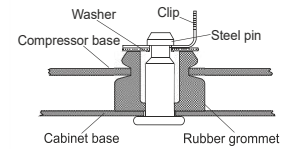
Compressor fixation



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

Application notes

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

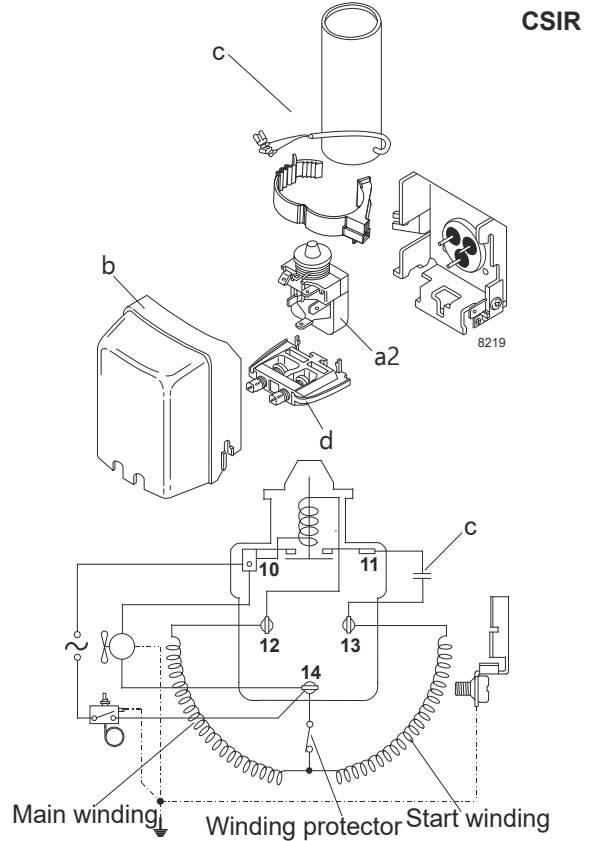
Model

Designation	NLE8.0CN	115V/60Hz	Conf. 1	Sales code:	105H6074
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Configuration

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

Electrical accessories / wiring diagram

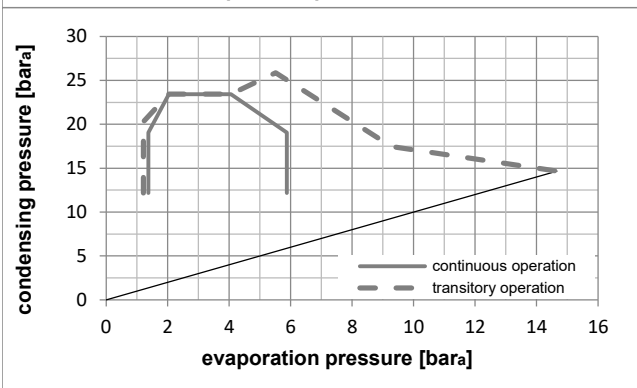
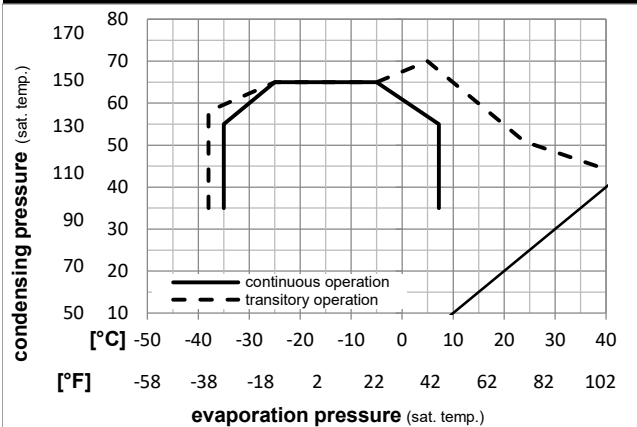


Ambient temperatures / system cooling

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

System cooling (n/a: outside limits)			
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, 6,3mm)	117U5073
b	plastic cover	103N2011
d	cord relief	103N1010

Model

Designation	NLE8.0CN	115V/60Hz	Conf. 1	Sales code:	105H6074
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Optimization + standard conditions

R290, 115V/60Hz, CSIR, fan 3m/s, CCC, UL

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption					
						Return gas temp.						Current consumption					
						Liquid temp.						Ref. mass flow					
						Cooling capacity						COP	EER	P1	I	m	
		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]	-23,3	48,9	4,44	48,9	372,5	1272	320,6	1,32	4,50	1,13	283,0	3,49	5,16	ARI540 LBP			
[°F]	-10	120	40	120													
[°C]	-23,3	40,6	32,2	32,2	499,4	1706	429,8	1,84	6,29	1,58	271,3	3,43	5,06	AHAM LBP			
[°F]	-10	105	90	90													
[°C]	-35	45	32	45	252,3	861	217,1	1,16	3,97	1,00	216,7	3,12	2,83	opt			
[°F]	-31	113	89,6	113													

Performance tables

R290, 115V/60Hz, CSIR, fan 3m/s, CCC, UL

	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

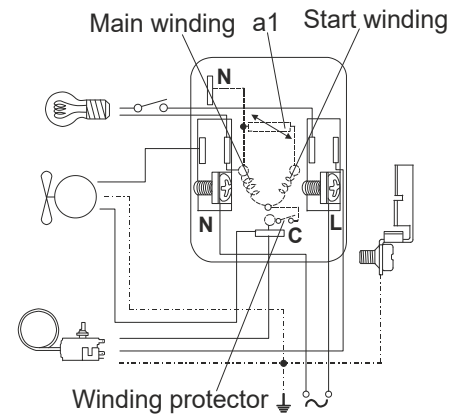
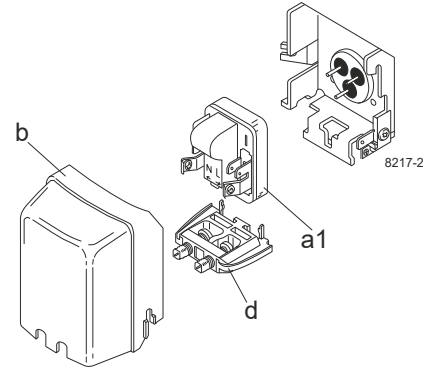
Designation **NLE8.0CN 115V/60Hz** Conf. 2 Sales code: **105H6074**

Configuration

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

Electrical accessories / wiring diagram

RSIR

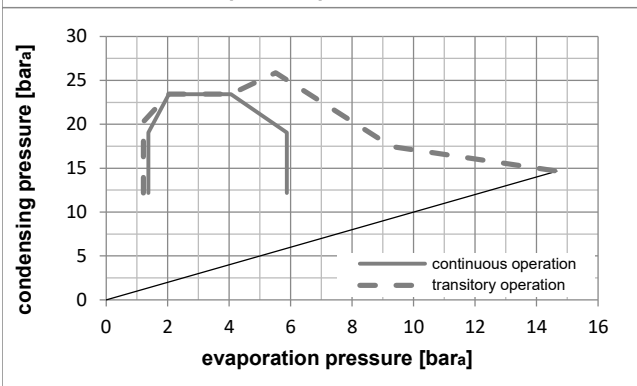
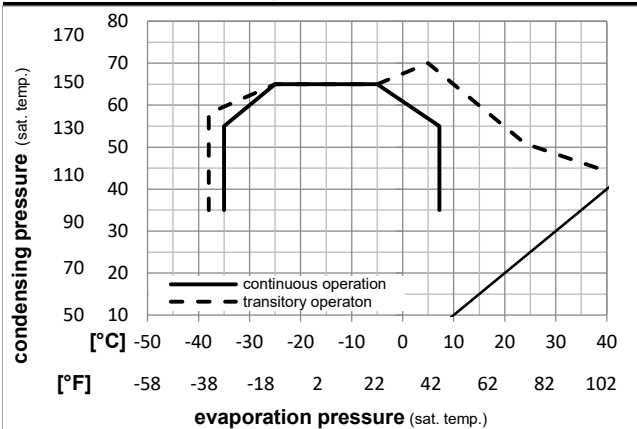


Ambient temperatures / system cooling

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

System cooling (n/a: outside limits)			
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 (115V, 50hm, 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:	105H6074
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Optimization + standard conditions

R290, 115V/60Hz, RSIR, fan 3m/s, CCC, UL

Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)				Cooling capacity						Power consumption			Ref. mass flow m	
		Return gas temp.		Liquid temp.		COP		EER		P1	I	Current consumption				
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]				
[°C]	-23	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]	-23	48,9	4,44	48,9	372,5	1272	320,6	1,32	4,50	1,13	283,0	3,49	5,16	ARI540 LBP		
[°F]	-10	120	40	120												
[°C]	-23	40,6	32,2	32,2	499,4	1706	429,8	1,84	6,29	1,58	271,3	3,43	5,06	AHAM LBP		
[°F]	-10	105	90	90												
[°C]	-35	45	32	45	252,3	861	217,1	1,16	3,97	1,00	216,7	3,12	2,83	opt		
[°F]	-31	113	89,6	113												

Performance tables

R290, 115V/60Hz, RSIR, fan 3m/s, CCC, UL

	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	-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	-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	

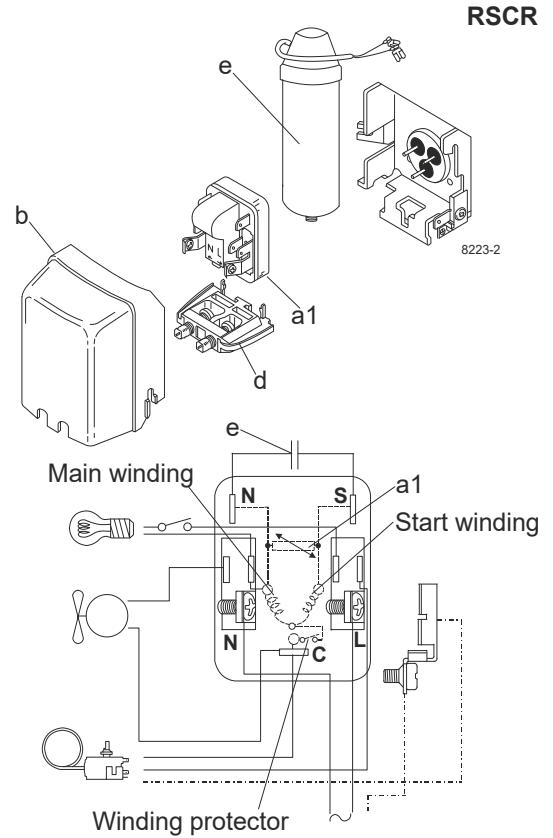
Model

Designation	NLE8.0CN	115V/60Hz	Conf. 3	Sales code:	105H6074
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Configuration

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

Electrical accessories / wiring diagram

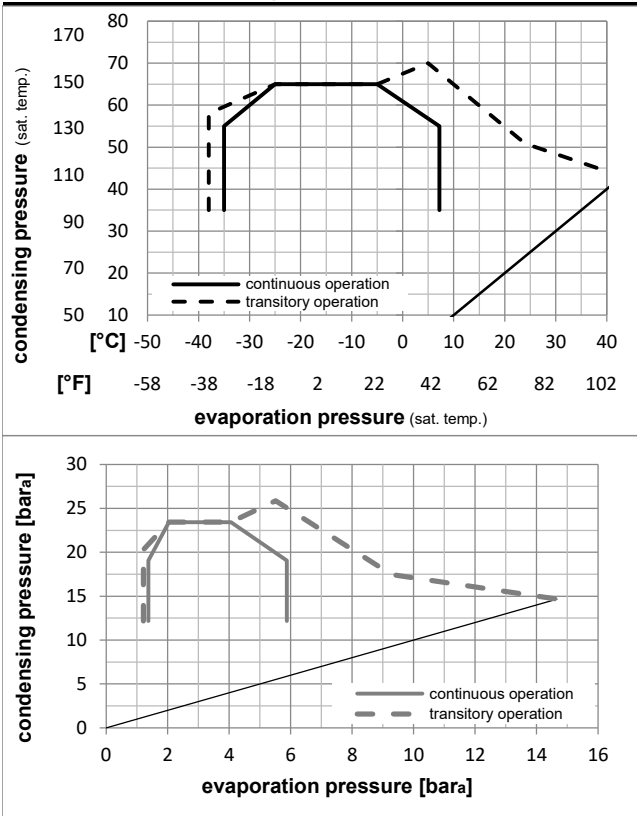


Ambient temperatures / system cooling

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

System cooling (n/a: outside limits)			
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

Alternative components

a1	e-PTC starter (115V, 50hm, 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

Model

Designation **NLE8.0CN 115V/60Hz** Conf. 3 Sales code: **105H6074**

Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)					Power consumption								
						Return gas temp.					Current consumption								
						Liquid temp.					Ref. mass flow								
						Cooling capacity					COP				EER	P1	I	m	
		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]	-23,3	48,9	4,44	48,9	381,3	1302	328,2	1,43	4,87	1,23	267,2	3,30	5,28	ARI540 LBP					
[°F]	-10	120	40	120															
[°C]	-23,3	40,6	32,2	32,2	511,2	1746	439,9	1,99	6,81	1,72	256,4	3,24	5,18	AHAM LBP					
[°F]	-10	105	90	90															
[°C]	-35	45	32	45	256,4	876	220,7	1,24	4,24	1,07	206,6	2,97	2,87	opt					
[°F]	-31	113	89,6	113															

Performance tables

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

	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	