

Model

Designation	NLVE13CN	Sales code:	105H7374
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R290
Oil viscosity	32cSt	Displacement	12,55cm ³ / 0,77cu.in
Oil quantity	300cm ³ / 10,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	300g / 10,6oz		
Free gas volume comp.	2360cm ³ / 79,8fl.oz		
Weight	10,8kg / 23,8lbs		
Motor protection	2# internal		
Winding resist. ph. to ph.	3,55Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations and Applications with NLVE13CN and Controller

Conf. 1

Sales code single pack:	105N4100
Sales code industry pack:	105N4101
Power supply (nominal)	115–127V,50/60Hz
Approvals	UL
Refrigerant	R290
Number of phases	1~AC
Application	L+MBP
Starting torque	HST
Hot gas defrost	OK
Long interval pull down	OK
System cooling	Fan cooling 3m/s
Note	- / -

Controller functions

Conf. 1

Protection	Mechanic
Max output power	1000W
No of relays	0
Hot gas defrost	yes
AEO speed setting	yes
Serial com, (Modbus)	-
DWI / Frequency input	yes
Note	

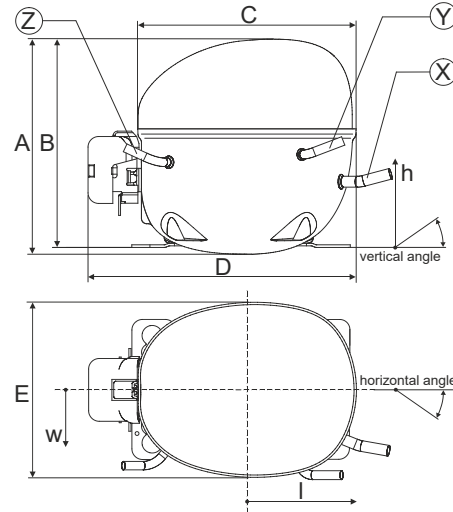
Model

Designation **NLVE13CN**

Sales code: **105H7374**

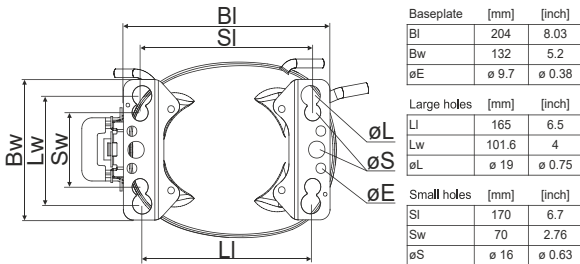
Compressor dimensions

Housing	A Height	203mm / 7,99in
	B Height	197mm / 7,76in
	C Length shell	205mm / 8,07in
	D Length w. cover	252mm / 9,92in
	E Width	166mm / 6,54in

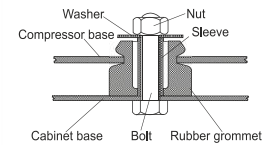


Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,41-6,59	øi 6,41-6,59
(i:inside, o:outside)	[in]	øi 0,32-0,33	øi 0,25-0,26	øi 0,25-0,26
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	15°	21°	155°
Position l/h/w	[mm]	132/69/57	94/102/81	-109/94/72
	[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

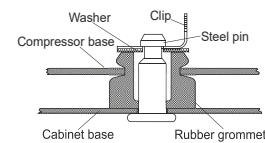
Compressor fixation



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

Provision for PE Grounding is located at the PE Stamp on the compressor
Semi suction intake without telescope

QR Code and Hyperlink leads to the [Operating Instructions.](#)



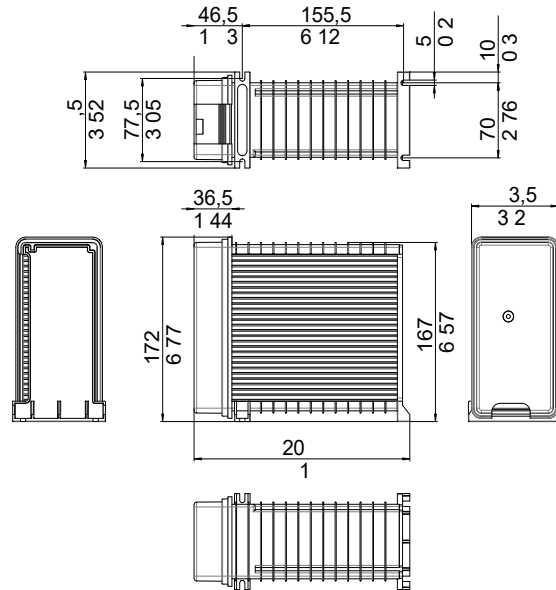
Model

Designation **NLVE13CN** **115-127V,50/60Hz** **Conf. 1** Sales code: **105H7374**

Controller **NLV Core Function 115V** **105N4100**

Sales code single pack: 105N4100 (1 units)
 Sales code industry pack: 105N4101 (8 units)
 Adaption to compressor: detached
 Protection class: IP31
 Weight: 1kg/2,2lbs
 Voltage nom.: 115-127V,50/60Hz
 Voltage range: 100-140V
 Max. current: 8 A
 LRA (Locked Rotor Amperage): 1,3A
 Cable length: 680mm
 Compressor speed range: 2000-4500rpm
 Housing plastic: UL94-5VA

Controller dimensions:



Operation Limits

System cooling

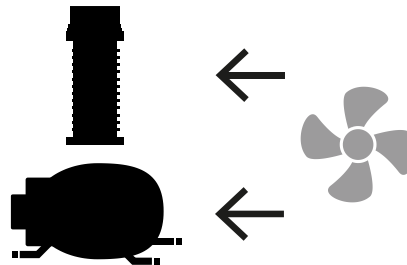
Ambient/ machineroom temperatures minimum /maximum

Ambient temperature range: 10 - 43°C / 50 - 110°F
 Machine room temperature range compressor: 10 - 48°C / 50 - 119°F
 Machine room temperature range controller: 10 - 50°C / 50 - 122°F

Compressor and Controller Cooling: Fan cooling 3m/s

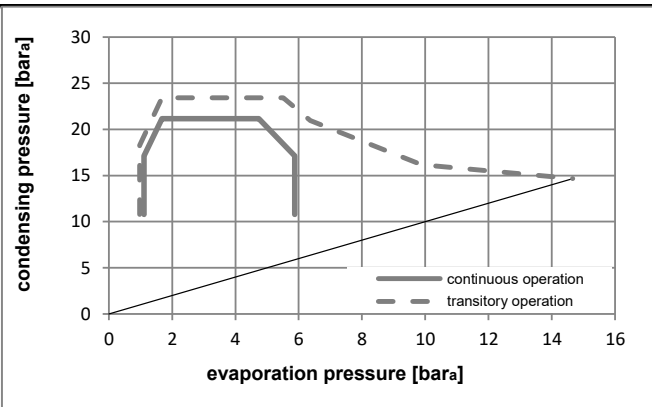
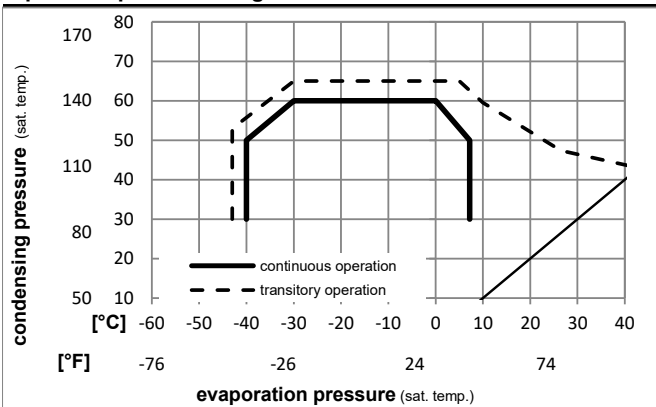
Ensure proper airflow of 3 m/s at both compressor and electronic units.

The airflow for the electronics must be directed to the heat sink.



Operation pressure range

R290

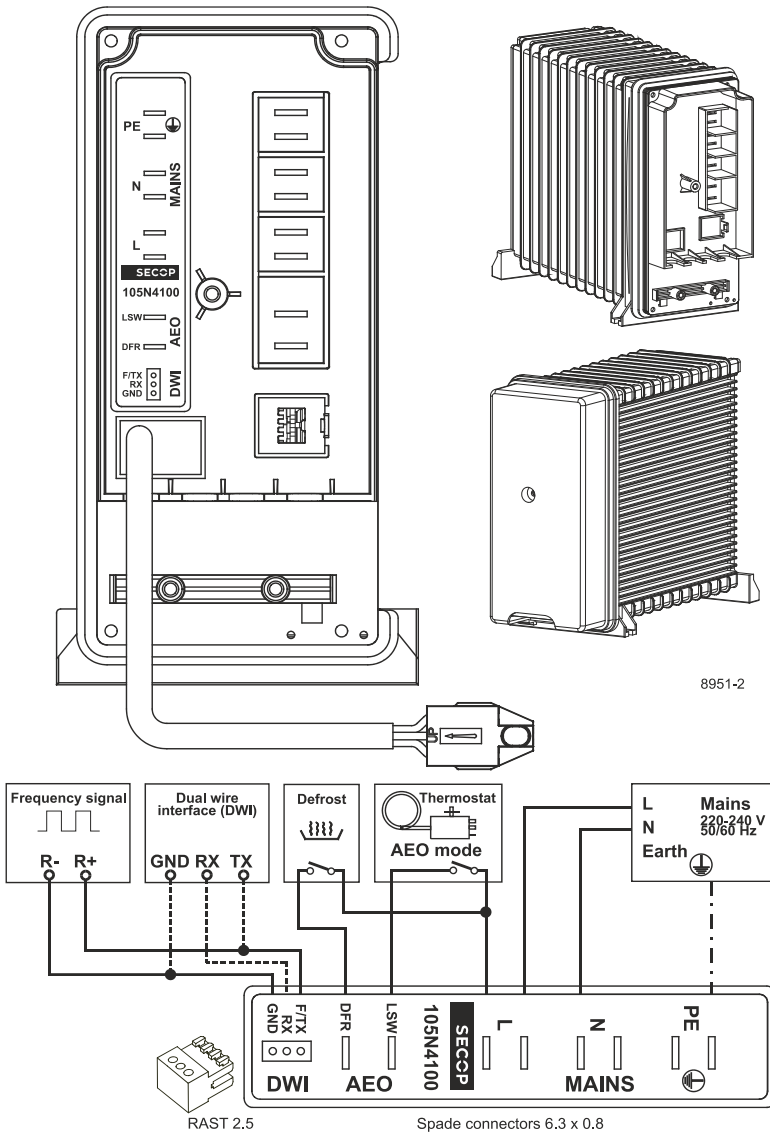


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Controller **NLV Core Function 115V** **105N4100**

Controller connections



Accessories (Compressor + Controller) - check operation manual for details

103N2008 plastic cover 1 pcs

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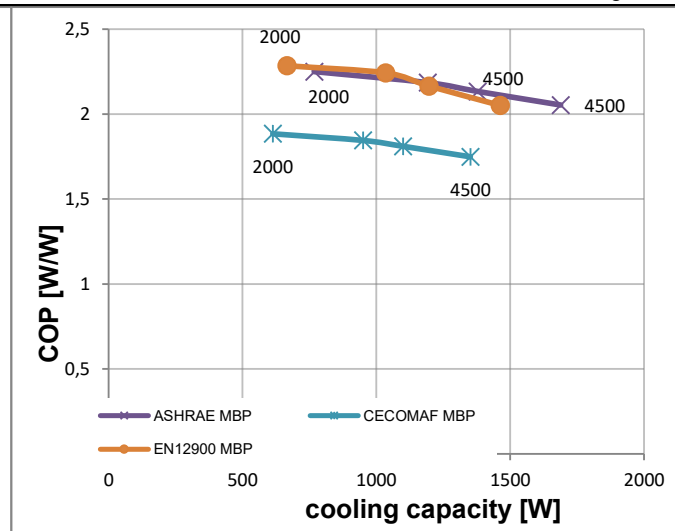
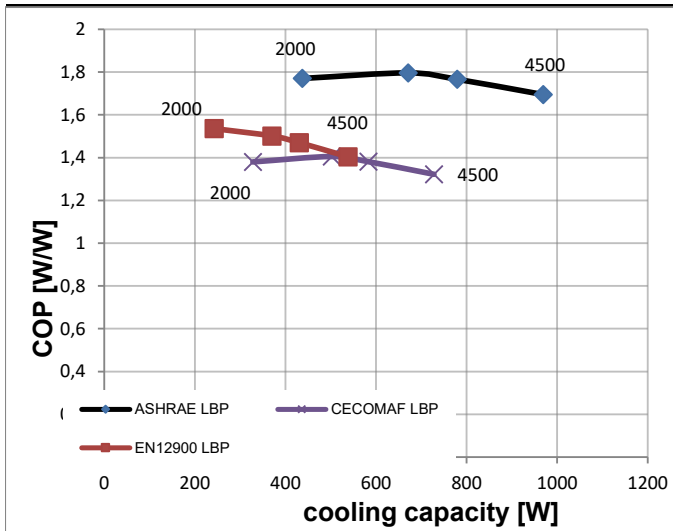
Optimization + standard conditions

R290, 115V, 60Hz, Rpm_N 4500, Fan cooling 3m/s

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			ASHRAE LBP			
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	[W]	[A]	[kg/h]									
[°C]	-23	54	32	32	969,5	3311	834,4	1,69	5,79	1,46	572,1	7,86	9,82												
[°F]	-10	130	90	90																					
[°C]	-25	55	32	55	728,0	2486	626,5	1,32	4,52	1,14	550,6	7,59	9,06												
[°F]	-13	131	90	131																					
[°C]	-35	40	20	40	538,0	1837	463,0	1,40	4,80	1,21	383,1	5,44	6,15												
[°F]	-31	104	68	104																					
[°C]	-7	54	35	46	1688,6	5767	1453,2	2,05	7,01	1,77	822,3	11,08	19,26												
[°F]	20	130	95	115																					
[°C]	-10	55	32	55	1351,2	4615	1162,9	1,75	5,97	1,50	772,7	10,44	17,09												
[°F]	14	131	90	131																					
[°C]	-10	45	20	45	1462,3	4994	1258,5	2,05	7,01	1,77	712,9	9,67	17,95												
[°F]	14	113	68	113																					

Standard conditions with different RPM

R290, 115V, 60Hz, Fan cooling 3m/s



Test conditions:

	pe [°C]	pc [°C]	Tliq [°C]	Tsuc [°C]
ASHRAE LBP	-23	54,44	32,22	32,22
CECOMAF LBP	-25	55	55	32
EN12900 LBP	-35	40	40	20

	pe [°C]	pc [°C]	Tliq [°C]	Tsuc [°C]
ASHRAE MBP	-6,66	54,44	46,11	35
CECOMAF MBP	-10	55	55	32
EN12900 MBP	-10	45	45	20