

Model

Designation	NLV12.6CN	Sales code:	105H7363
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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	200g / 7,1oz		
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 NLV12.6CN and Controller

Conf. 1

Sales code single pack:	105N4120
Sales code industry pack:	105N4121
Power supply (nominal)	220–240V,50/60Hz
Approvals	CCC
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	

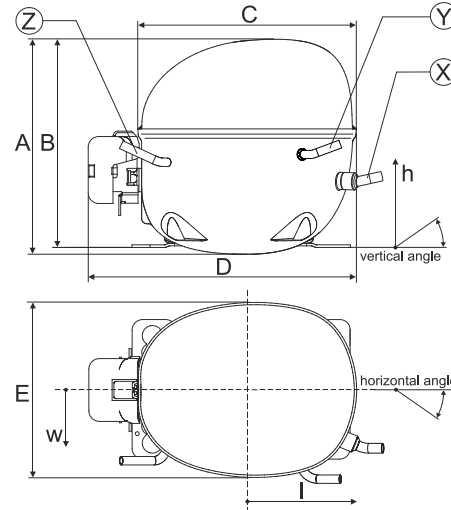
Model

Designation **NLV12.6CN**

Sales code: **105H7363**

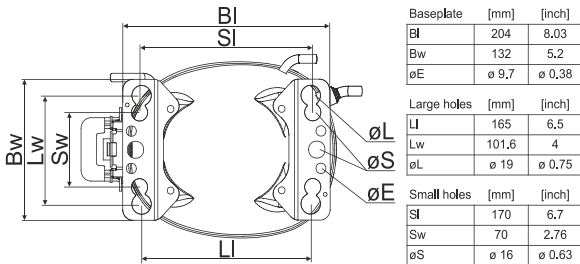
Compressor dimensions

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

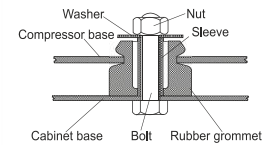


Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside)	[in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	15°	21°	155°
Position l/h/w	[mm]	132/69/57	94/102/81	-109/94/72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

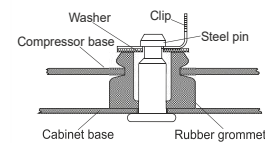
Compressor fixation



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

Direct suction intake with telescope

QR Code and Hyperlink leads to the

[Operating Instructions.](#)

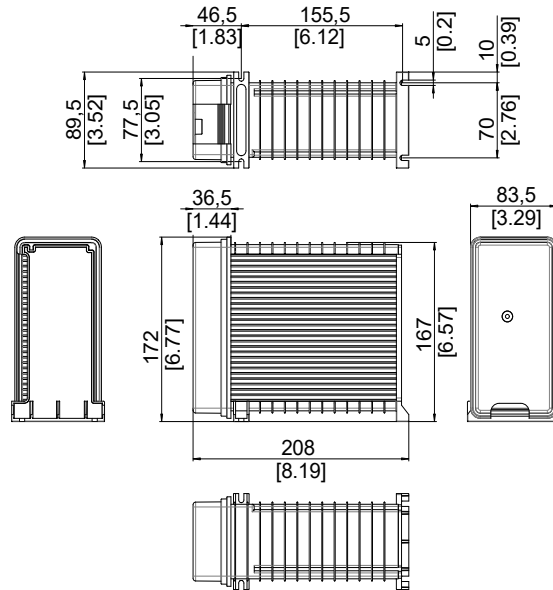


Model

Designation	NLV12.6CN	220–240V,50/60Hz	Conf. 1	Sales code:	105H7363
Controller	NLV Basic 230V				105N4120

Sales code single pack:	105N4120 (1 units)
Sales code industry pack:	105N4121 (8 units)
Adaption to compressor:	detached
Protection class:	IP31
Weight:	1kg/2,2lbs
Voltage nom.:	220–240V,50/60Hz
Voltage range:	198–264V
Max. current:	8 A
LRA (Locked Rotor Amperage):	1,3A
Cable length:	680mm
Compressor speed range:	2000-4500rpm

Controller dimensions:



Operation Limits

System cooling

Ambient/ machineroom temperatures minimum /maximum

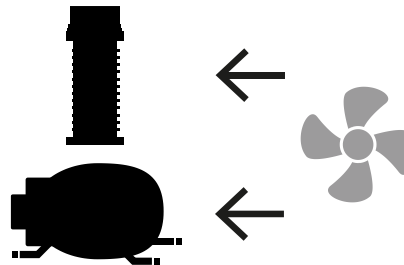
Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range compressor:	10 - 48°C / 50 - 119°F
Machine room temperature range controller:	10 - 50°C / 50 - 122°F

Compressor and Controller Cooling:

Fan cooling 3m/s

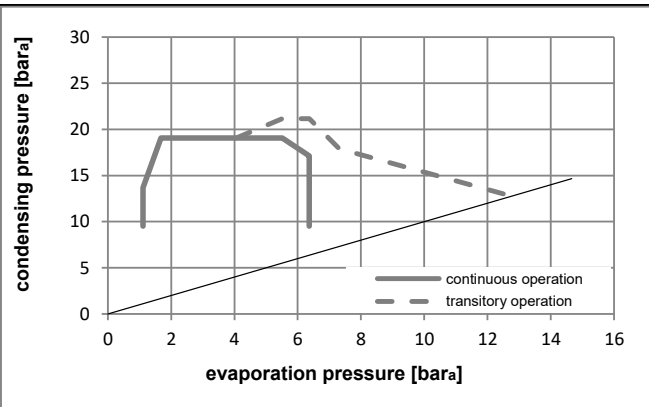
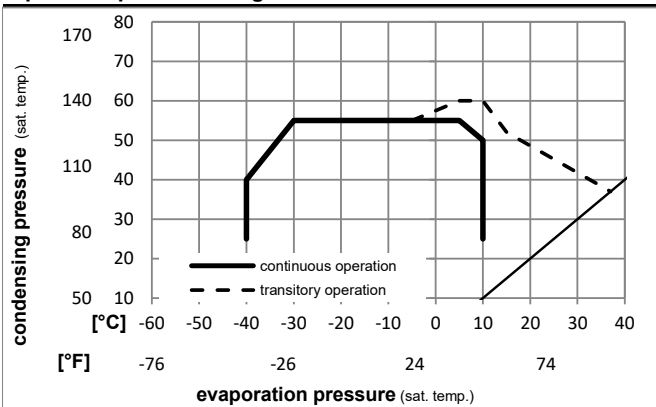
Ensure proper airflow of 3 m/s at both compressor and electronic units.

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



Operation pressure range

R290

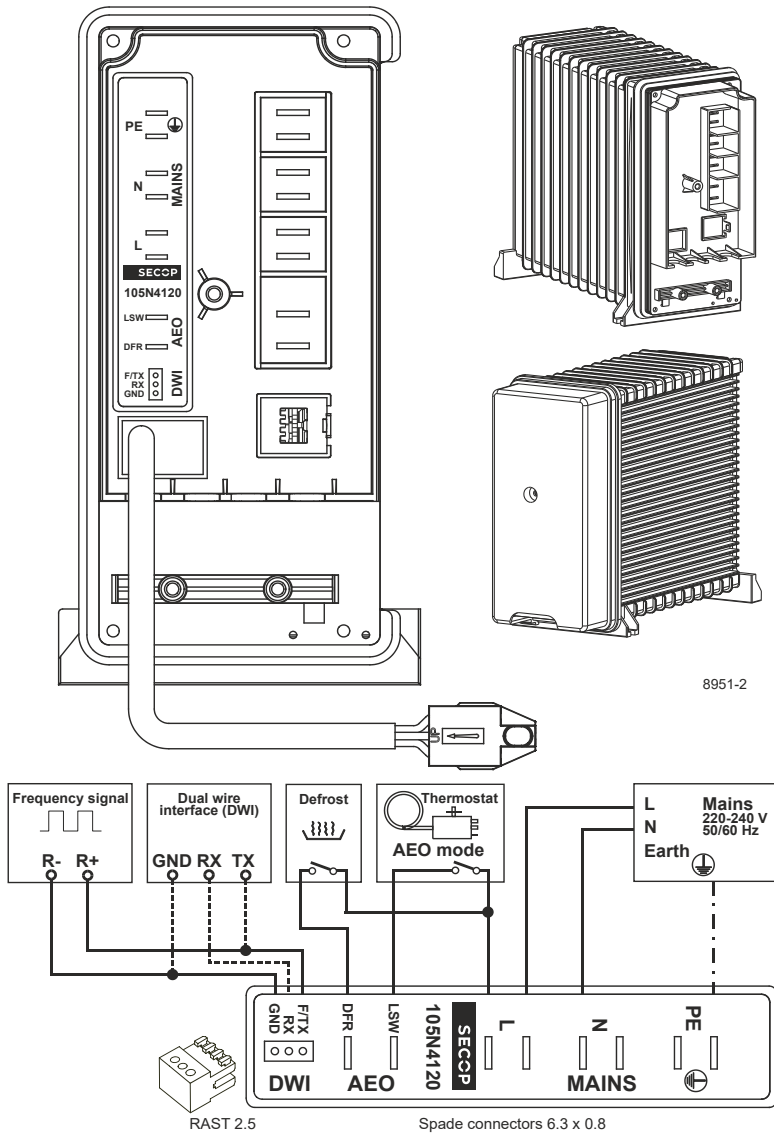


Model

Designation **NLV12.6CN** **220-240V,50/60Hz** **Conf. 1** Sales code: **105H7363**

Controller **NLV Basic 230V** **105N4120**

Controller connections



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

103N2008 plastic cover 1 pcs

Model

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Controller **NLV Basic 230V** **105N4120**

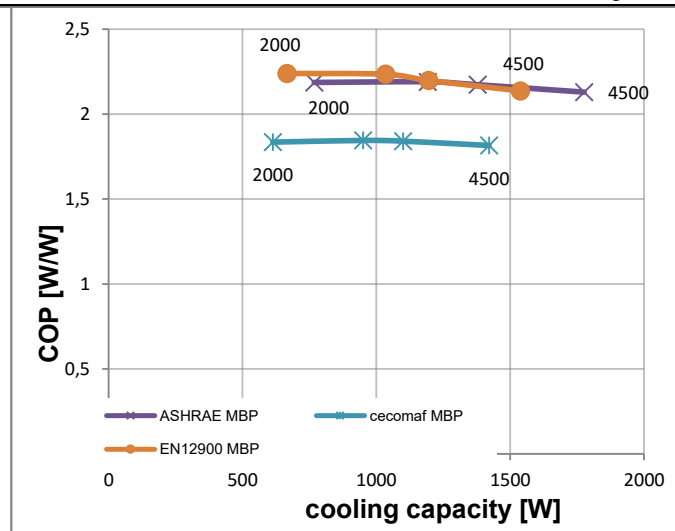
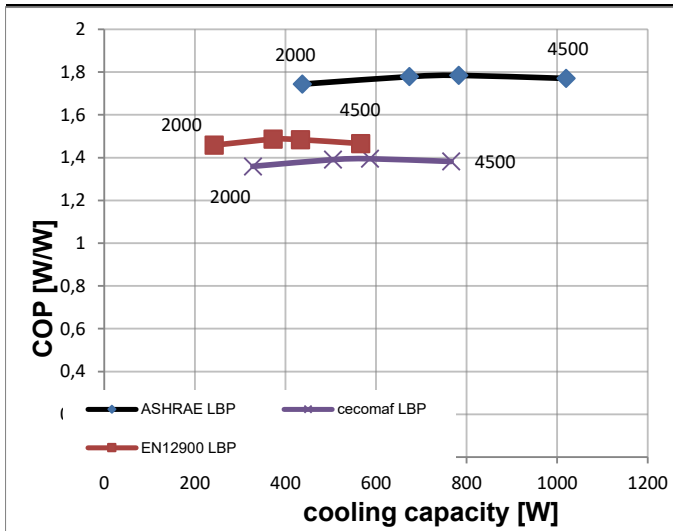
Optimization + standard conditions

R290, 240V, 50Hz, 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	1020,0	3484	877,9	1,77	6,05	1,52	576,2	3,46	10,33										
[°F]	-10	130	90	90																			
[°C]	-25	55	32	55	766,0	2616	659,2	1,38	4,72	1,19	554,3	3,34	9,54									ASHRAE LBP	
[°F]	-13	131	90	131																			cecomaf LBP
[°C]	-35	40	20	40	566,2	1934	487,2	1,47	5,01	1,26	386,2	2,42	6,47										EN12900 LBP
[°F]	-31	104	68	104																			
[°C]	-7	54	35	46	1776,0	6065	1528,4	2,13	7,27	1,83	834,0	4,87	20,26										ASHRAE MBP
[°F]	20	130	95	115																			
[°C]	-10	55	32	55	1421,2	4854	1223,1	1,82	6,20	1,56	782,9	4,59	17,98										cecomaf MBP
[°F]	14	131	90	131																			
[°C]	-10	45	20	45	1538,0	5253	1323,6	2,14	7,30	1,84	719,8	4,24	18,88										EN12900 MBP
[°F]	14	113	68	113																			

Standard conditions with different RPM

R290, 240V, 50Hz, Fan cooling 3m/s



Test conditions:

	pe [°C]	pc [°C]	Tliq [°C]	Tsuc [°C]		pe [°C]	pc [°C]	Tliq [°C]	Tsuc [°C]
ASHRAE LBP	-23	54,44	32,22	32,22	ASHRAE MBP	-6,66	54,44	46,11	35
cecomaf LBP	-25	55	55	32	cecomaf MBP	-10	55	55	32
EN12900 LBP	-35	40	40	20	EN12900 MBP	-10	45	45	20