Model
NLV12.6CN

Sales code:
105H7363

Compressor Data

Refrigerant(s)	**R290**
Refr. charge - tech. limit	**200g / 7.05oz**
Weight	**10.80 kg / 23.81lbs**
Displacement	**12.55 cm3 / 0.77cu.in**
Compressors on pallet	**80**

General – Configurations With NLV12.6CN and Controller

–	**Conf. 1**
Sales code single pack:	105N4120
Power supply (nominal)	220–240 V,50/60 Hz
Number of phases	1~AC
Approvals	CCC
Starting torque	HST
Refrigerant	R290
Application	L+MBP
Hot gas defrost	OK
Long interval pull down	OK
Protection	Mechanic

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor
- Direct suction intake with telescope

Model
NLV12.6CN

Sales code:
105H7363

Compressor Design

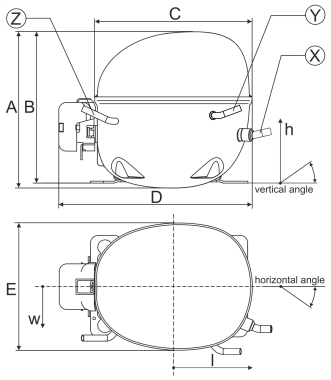
Oil type	**POE**	Motor protection	**internal**
Oil viscosity	**32cSt**	Max. winding temp.	**125 °C**
Oil quantity	**300 / 10.14fl.oz**	Max. discharge temp.	**130°C / 266°F**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**		

Compressor Dimensions

Housing

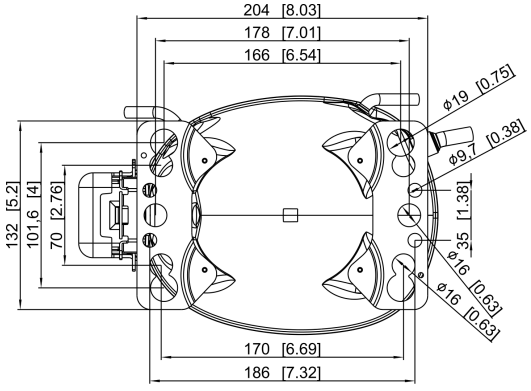
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**252mm / 9.92in**
E Width	**166mm / 6.54in**

Find 3D Model here



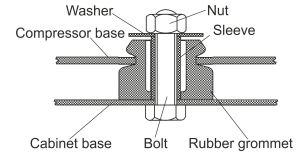
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	21°	155°
Position l/h/w [mm]	132/68.5/56.7 / 5.20/2.70/2.23in	94/101.7/81 / 3.70/4.00/3.19in	-109.3/94.3/72 / -4.30/3.71/2.83in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

Mounting Accessories

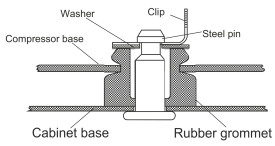


Dimensions in mm [in]

Bolt joint



Snap-on



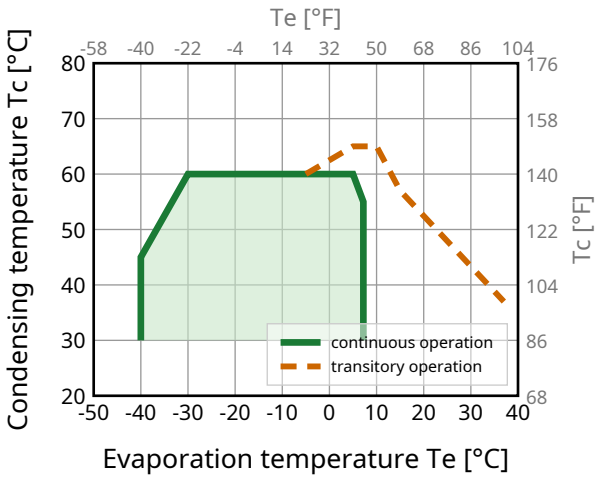
	one comp.	multi pack
Bolt joint | M6 | ø16mm	118-1917	118-1918
Bolt joint | ø1/4" | ø16mm	118-1946	–
Bolt joint | ø1/4" | ø19mm	118-1949	–
Snap-on | ø7,3 | ø16mm	118-1947	118-1919

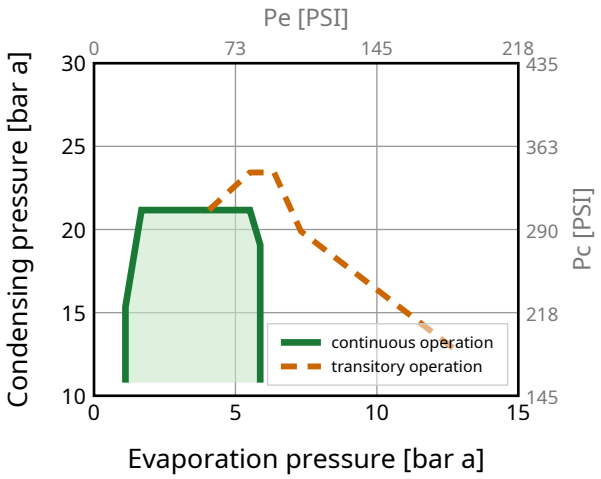
Model
NLV12.6CN System Design

Sales code:
105H7363

System Design

Operation Pressure Range R290



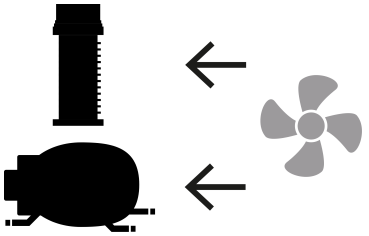


System Cooling

Compressor and Controller Cooling: fan 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.



Accessories (Compressor + Controller)

103N2008	plastic cover	1 pcs

Model Sales code:

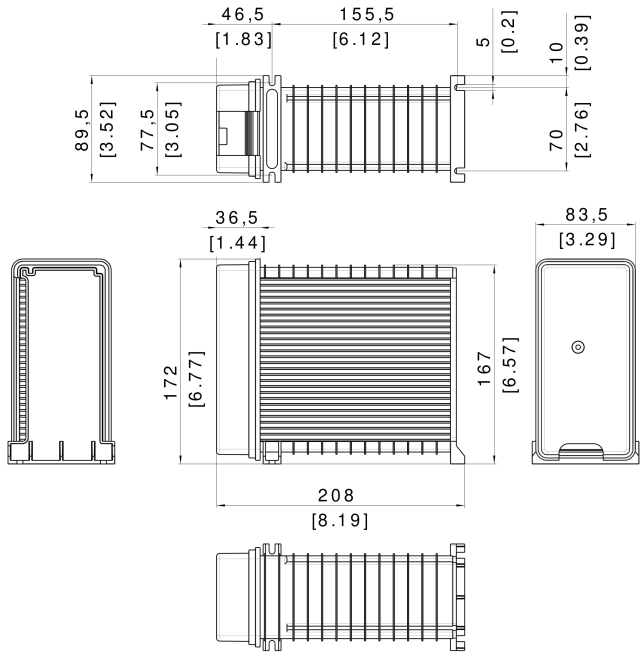
NLV12.6CN Controller Overview **105H7363**

Controller Overview

–	**Conf. 1**
Sales code single pack:	105N4120
Sales code industry pack:	105N4121 (8)
Voltage nom.:	220–240 V,50/60 Hz
Voltage range	198–264 V
Max output power	1000 W
Compressor speed range:	2000-4500 rpm
Cable length:	680 mm
Protection class:	IP31
LRA (Locked Rotor Amperage):	1,3 A
AEO and Defrost pin	Yes
Frequency input	Yes
Modbus input	–
Controller Wiring	» Controller Wiring

Controller Dimensions

Conf. 1



Operating Instructions

For proper installation and operation of variable-speed compressors and controllers, please refer to the Operating Instructions. The document covers electrical installation, speed control, and technical data for the controller.
» Download Operating Instructions

Model
NLV12.6CN

Sales code:
105H7363

Standard Conditions — 2000 rpm

R290, 240 V/50 Hz, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**440**	1500	378	**1.75**	5.98	251	1.65	4.46	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**328**	1119	282	**1.36**	4.64	241	1.60	4.11	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**243**	828	209	**1.46**	4.98	166	1.18	2.78	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**768**	2619	660	**2.19**	7.47	351	2.21	8.79	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**613**	2093	527	**1.83**	6.26	334	2.12	7.80	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**667**	2275	574	**2.24**	7.65	297	1.91	8.21	**EN12900 MBP**

Performance Tables — 2000 rpm

R290, 240 V/50 Hz, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-40	-40	**173**	591	149	**1.17**	3.98	148	1.09	1.95
-30	-22	**300**	1022	258	**1.51**	5.17	198	1.36	3.38
-20	-4	**469**	1601	404	**1.88**	6.40	250	1.65	5.34
-10	14	**693**	2366	596	**2.33**	7.95	297	1.91	7.96
0	32	**983**	3355	846	**2.96**	10.09	332	2.11	11.43
10	50	**1350**	4607	1161	**3.88**	13.25	348	2.20	15.97

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-40	-40	**139**	473	119	**0.88**	3.00	158	1.14	1.72
-30	-22	**256**	874	220	**1.21**	4.14	211	1.43	3.20
-20	-4	**411**	1401	353	**1.51**	5.14	273	1.77	5.17
-10	14	**613**	2093	527	**1.83**	6.26	334	2.12	7.80
0	32	**875**	2987	753	**2.25**	7.69	388	2.42	11.29
10	50	**1208**	4122	1039	**2.83**	9.64	428	2.65	15.87

Model
NLV12.6CN

Sales code:
105H7363

Standard Conditions — 4500 rpm

R290, 240 V/50 Hz, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**1025**	3499	882	**1.78**	6.07	576	3.46	10.41	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**766**	2614	659	**1.38**	4.72	554	3.34	9.60	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**566**	1933	487	**1.47**	5.01	386	2.42	6.50	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**1776**	6058	1527	**2.13**	7.27	833	4.87	20.33	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**1421**	4849	1222	**1.81**	6.19	783	4.59	18.07	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**1540**	5255	1325	**2.14**	7.30	720	4.24	18.95	**EN12900 MBP**

Performance Tables — 4500 rpm

R290, 240 V/50 Hz, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-40	-40	**403**	1374	346	**1.18**	4.03	341	2.18	4.53
-30	-22	**699**	2385	601	**1.53**	5.23	456	2.80	7.90
-20	-4	**1090**	3717	937	**1.87**	6.39	582	3.49	12.39
-10	14	**1601**	5463	1377	**2.22**	7.59	720	4.24	18.39
0	32	**2262**	7717	1945	**2.59**	8.85	872	5.08	26.30
10	50	**3098**	10571	2664	**2.98**	10.16	1040	6.02	36.64

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-40	-40	**318**	1083	273	**0.91**	3.09	351	2.23	3.94
-30	-22	**598**	2041	514	**1.24**	4.22	484	2.95	7.47
-20	-4	**957**	3265	823	**1.52**	5.20	627	3.73	12.04
-10	14	**1421**	4849	1222	**1.81**	6.19	783	4.59	18.07
0	32	**2018**	6887	1736	**2.12**	7.24	952	5.53	26.03
10	50	**2776**	9473	2388	**2.44**	8.34	1136	6.56	36.48

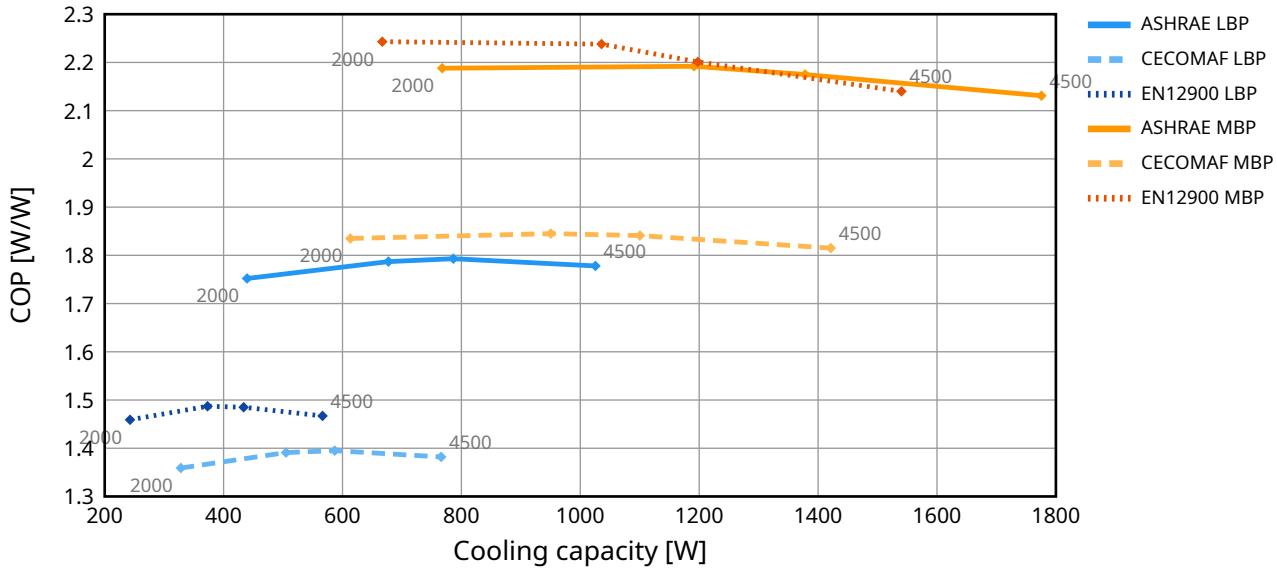
Model
NLV12.6CN

Sales code:
105H7363

Optimal Performance

R290, 240 V/50 Hz, fan 3m/s
Shows the speed (RPM) that achieves the highest COP at each standard condition.

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	RPM	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[rpm]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	**786**	2684	676	**1.79**	6.12	439	**3500**	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**587**	2003	505	**1.40**	4.76	421	**3500**	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**373**	1273	321	**1.49**	5.07	251	**3000**	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**1191**	4065	1025	**2.19**	7.48	544	**3000**	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**950**	3243	817	**1.84**	6.30	515	**3000**	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**667**	2275	574	**2.24**	7.65	297	**2000**	**EN12900 MBP**

Cooling Capacity vs. COP

R290, 240 V/50 Hz, fan 3m/s