Model
NLV12.6CN

Sales code:
105H7366

Compressor Data

Refrigerant(s)	**R290**
Refr. charge - tech. limit	**300g / 10.58oz**
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**	**Conf. 2**	**Conf. 3**	**Conf. 4**
Sales code single pack:	105N4866	105N4910	105N4960	105N4962
Power supply (nominal)	100-240 V,50/60 Hz	220-240 V,50/60 Hz	100-240 V,50/60 Hz	100-240 V,50/60 Hz
Number of phases	1~AC	1~AC	1~AC	1~AC
Approvals	CB, CCC, VDE, UL	CB, CCC, VDE, UL	CB, CCC, VDE, UL	CB, CCC, VDE, UL
Starting torque	HST	HST	HST	HST
Refrigerant	R290	R290	R290	R290
Application	L+MBP	L+MBP	L+MBP	L+MBP
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK
Protection	Mechanic	Mechanic	Mechanic	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:
105H7366

Compressor Design

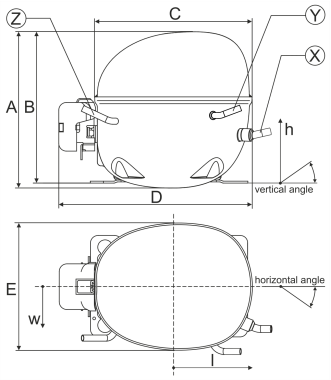
Oil type	**POE**	Motor protection	**internal**
Oil viscosity	**32cSt**	Max. winding temp.	**125 °C**
Oil quantity	**300 / 10.14fl.oz**	Max. discharge temp.	**130°C / 266°F**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**		

Compressor Dimensions

Housing

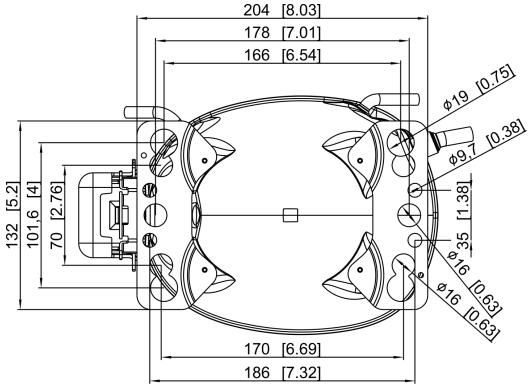
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**252mm / 9.92in**
E Width	**166mm / 6.54in**

Find 3D Model here



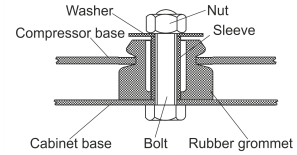
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	21°	155°
Position l/h/w [mm]	132/68.5/56.7 / 5.20/2.70/2.23in	94/101.7/81 / 3.70/4.00/3.19in	-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

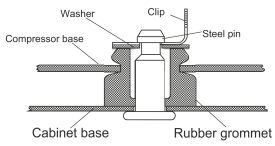


Dimensions in mm [in]

Bolt joint



Snap-on



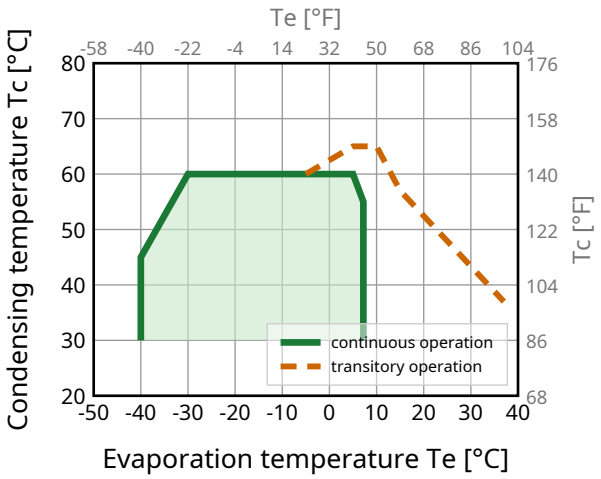
	one comp.	multi pack
Bolt joint | M6 | ø16mm	118-1917	118-1918
Bolt joint | ø1/4" | ø16mm	118-1946	–
Bolt joint | ø1/4" | ø19mm	118-1949	–
Snap-on | ø7,3 | ø16mm	118-1947	118-1919

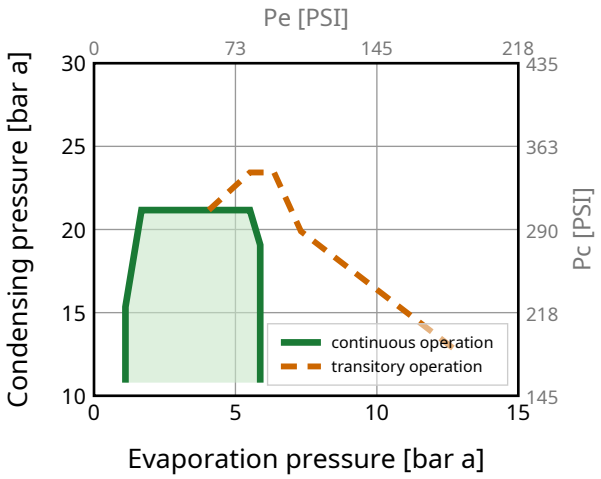
Model
NLV12.6CN System Design

Sales code:
105H7366

System Design

Operation Pressure Range R290



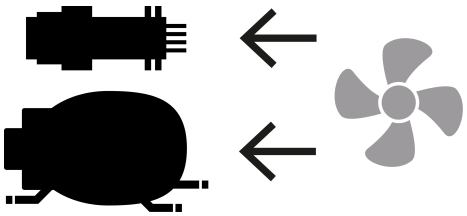


System Cooling

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

NLV12.6CN

Controller Overview

Sales code:

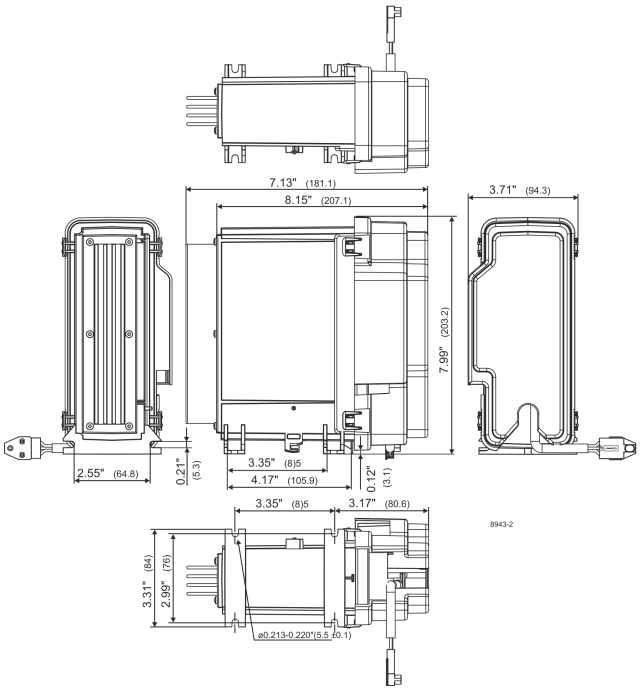
105H7366

Controller Overview

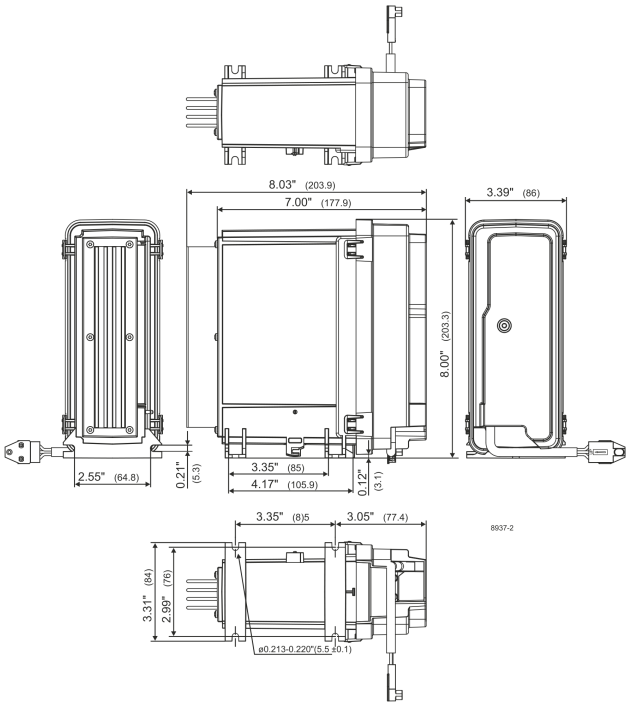
–	**Conf. 1**	**Conf. 2**	**Conf. 3**	**Conf. 4**
Sales code single pack:	105N4866	105N4910	105N4960	105N4962
Sales code industry pack:	105N4867 (8)	105N4911 (8)	105N4961 (8)	105N4963 (8)
Voltage nom.:	100-240 V,50/60 Hz	220-240 V,50/60 Hz	100-240 V,50/60 Hz	100-240 V,50/60 Hz
Voltage range	90-150/180-270 V	180-270 V	90-150/180-270 V	90-150/180-270 V
Max output power	1000 W	1000 W	1000 W	1000 W
Compressor speed range:	2000-4500 rpm	2000-4500 rpm	2000-4500 rpm	2000-4500 rpm
Cable length:	680 mm	680 mm	680 mm	915 mm
Protection class:	IP43	IP54	IP54	IP54
LRA (Locked Rotor Amperage):	1,2 A	1,2 A	1,2 A	1,2 A
AEO and Defrost pin	–	Yes	Yes	Yes
Frequency input	–	Yes	Yes	Yes
Modbus input	RS485	SWI	SWI	SWI
Controller Wiring	» Controller Wiring	» Controller Wiring	» Controller Wiring	» Controller Wiring

Controller Dimensions

Conf. 1



Conf. 2, 3, 4



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:
105H7366

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**	1501	378	**1.77**	6.03	249	1.09	4.47	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**329**	1122	283	**1.38**	4.69	239	1.05	4.12	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**242**	825	208	**1.47**	5.01	164	0.77	2.77	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**767**	2618	660	**2.18**	7.45	351	1.52	8.78	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**613**	2091	527	**1.83**	6.25	334	1.45	7.79	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**667**	2275	574	**2.25**	7.67	297	1.29	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	**174**	594	150	**1.19**	4.04	147	0.71	1.96
-30	-22	**299**	1021	257	**1.53**	5.23	195	0.88	3.38
-20	-4	**468**	1599	403	**1.89**	6.44	248	1.09	5.33
-10	14	**693**	2366	596	**2.34**	7.98	297	1.29	7.96
0	32	**985**	3361	847	**2.98**	10.15	331	1.44	11.45
10	50	**1355**	4623	1165	**3.96**	13.50	342	1.48	16.02

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

-40	-40	**143**	487	123	**0.91**	3.12	156	0.74	1.77
-30	-22	**258**	879	222	**1.24**	4.22	209	0.93	3.22
-20	-4	**411**	1401	353	**1.51**	5.17	271	1.19	5.17
-10	14	**613**	2091	527	**1.83**	6.25	334	1.45	7.79
0	32	**875**	2987	753	**2.25**	7.68	389	1.68	11.29
10	50	**1210**	4127	1040	**2.84**	9.70	425	1.82	15.89

Model
NLV12.6CN

Sales code:
105H7366

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	**1.81**	6.18	566	2.42	10.42	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**767**	2617	660	**1.41**	4.82	542	2.32	9.61	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**564**	1924	485	**1.50**	5.10	377	1.64	6.47	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**1774**	6053	1526	**2.13**	7.25	834	3.55	20.31	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**1419**	4843	1221	**1.81**	6.19	783	3.33	18.05	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**1540**	5255	1325	**2.14**	7.29	720	3.07	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	**405**	1383	349	**1.24**	4.24	326	1.43	4.56
-30	-22	**698**	2381	600	**1.56**	5.31	448	1.93	7.88
-20	-4	**1087**	3710	935	**1.87**	6.38	582	2.49	12.37
-10	14	**1601**	5463	1377	**2.22**	7.58	720	3.07	18.39
0	32	**2266**	7732	1949	**2.64**	9.00	859	3.65	26.35
10	50	**3109**	10607	2673	**3.14**	10.71	990	4.21	36.77

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

-40	-40	**329**	1124	283	**0.98**	3.33	337	1.47	4.09
-30	-22	**602**	2053	517	**1.28**	4.38	469	2.02	7.52
-20	-4	**956**	3262	822	**1.54**	5.26	620	2.65	12.03
-10	14	**1419**	4843	1221	**1.81**	6.19	783	3.33	18.05
0	32	**2018**	6887	1736	**2.12**	7.23	952	4.05	26.03
10	50	**2780**	9486	2391	**2.48**	8.45	1123	4.77	36.53

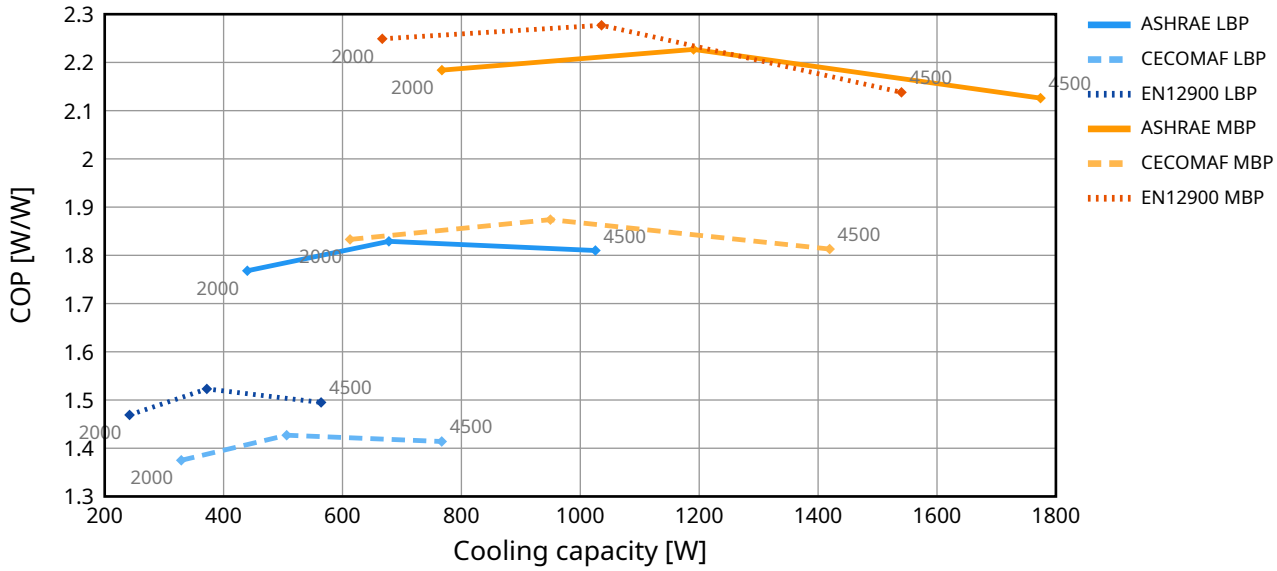
Model
NLV12.6CN

Sales code:
105H7366

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	**678**	2313	583	**1.83**	6.24	371	**3000**	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**506**	1727	435	**1.43**	4.87	355	**3000**	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**372**	1269	320	**1.52**	5.20	244	**3000**	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**1190**	4062	1024	**2.23**	7.60	535	**3000**	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**950**	3240	817	**1.87**	6.39	507	**3000**	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**1036**	3534	891	**2.28**	7.77	455	**3000**	**EN12900 MBP**

Cooling Capacity vs. COP

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