

NLV12.6CN Variable Speed Drive Compressor R290, 220-240V 50/60Hz & 100-240V 50/60Hz

- with 105N4710 & 105N4760 Controllers



General

Code number (without electronic unit)	105H6356
Electronic unit - Standard, 26.8-28.3 in. cable length	105N4710
Approvals: EN 60335-2-34 with Annex AA, CCC	(with PFC)
Electronic unit - Multi Voltage, 26.8-28.3 in. cable length	105N4760
Approvals: EN 60335-2-34 with Annex AA, UL 60335-2-34 with Annex AA, CB IEC 60335-2-34	(with PFC)
Compressors on pallet	80
Remarks: PFC = power factor correction according to EN 61000-3-2:2014	

Application

Application	LBP/MBP
Evaporating temperature	°F -40 to 45
Voltage range / frequency 105N4710	V/Hz 180 - 270 / 50/60
Voltage range / frequency 105N4760	V/Hz 90 - 270 / 50/60
Max. condensing temperature continuous (short)	°F 149 (149)
Max. winding temperature continuous (short)	°F 257 (275)

Cooling requirements

Frequency	Hz	50	60
Application		LBP MBP HBP	LBP MBP HBP
32°C		F ₂ F ₂ -	F ₂ F ₂ -
38°C		F ₂ F ₂ -	F ₂ F ₂ -
43°C		F ₂ F ₂ -	F ₂ F ₂ -

Features

Speed range	rpm	2000 - 4500
Speed control		AEO, frequency, serial com.
Protections		current, speed, temperature
Protection class (electronic unit)		IP54

Motor

Motor type		permanent magnet
LRA (rated after 4 sec. UL984),	A	electronic cut off
Maximum current	A	7.0
Resistance, all 3 windings (25°C)	Ω	5.3

Design

Displacement	cu.in	0.77
Oil quantity (type)	fl.oz.	10.2 (polyolester)
Maximum refrigerant charge	oz.	5.3
Free gas volume in compressor	fl.oz.	79.8
Weight - Compressor/Electronic unit	lbs.	26.0 / 2.6

Dimensions

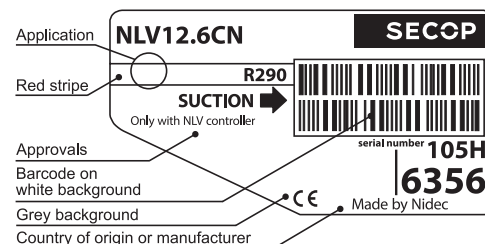
Height	in.	A 7.99
		B 7.76
Suction connector	location/I.D. in. angle	C 0.320-0.327 15°
	material comment	Copper Rubber plug
Process connector	location/I.D. in. angle	D 0.252-0.259 25°
	material comment	Copper Rubber plug
Discharge connector	location/I.D. in. angle	E 0.252-0.259 21°
	material comment	Copper Rubber plug

Accessories

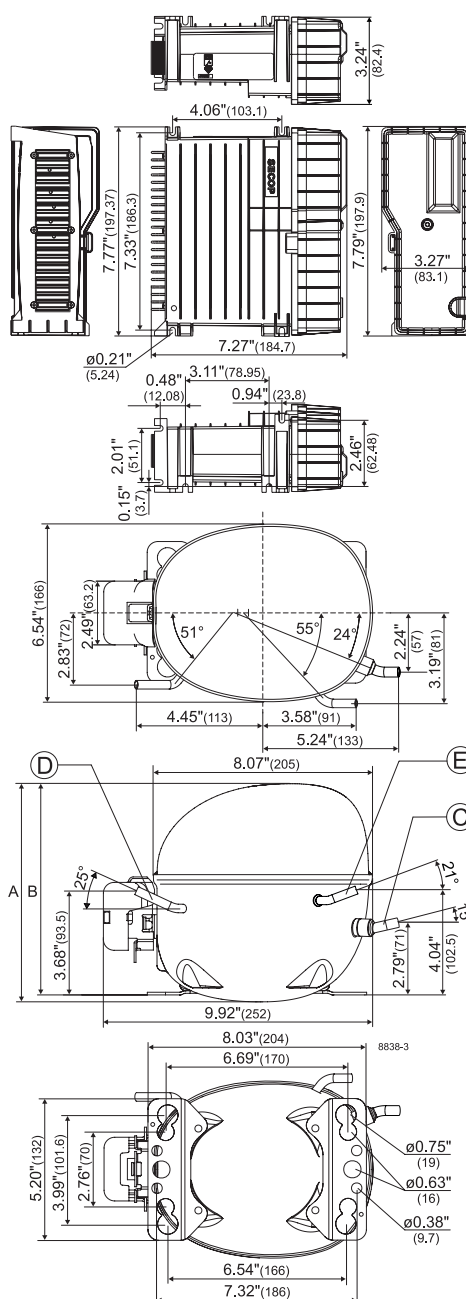
Cover		103N2008
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Mounting accessories

Bolt joint for one compressor	Ø: 3/4 in.	118-1949
Bolt joint in quantities	Ø: 5/8 in.	118-1946
Snap-on in quantities	Ø: 5/8 in.	118-1947



- S = Static cooling normally sufficient
O = Oil cooling
F₁ = Fan cooling 1.5 m/s (compressor compartment temp. equal to ambient temperature)
F₂ = Fan cooling 3.0 m/s necessary
SG = Suction gas cooling normally sufficient
- = not applicable in this area



LBP: ASHRAE 115/220V, 50/60Hz, fan cooling F₂

Speed (rpm)	2000	2250	2400	2500	2750	2900	3000	3500	4000	4500
Capacity [BTU/h]	1442	1644	1765	1846	2039	2155	2232	2556	2880	3204
Power cons. [W]	251	280	298	309	340	359	371	436	501	566
Current cons. [A]	1.23	1.36	1.44	1.49	1.63	1.71	1.77	2.06	2.35	2.64
EER [BTU/Wh]	5.75	5.87	5.93	5.97	5.99	6.01	6.02	5.86	5.75	5.66

Test conditions

Evaporation pressure	-10°F
Condensing pressure	130°F
Liquid temperature	90°F
Return gas temperature	90°F

LBP: CECOMAF 115/220V, 50/60Hz, fan cooling F₂

Speed (rpm)	2000	2250	2400	2500	2750	2900	3000	3500	4000	4500
Capacity [BTU/h]	1080	1230	1320	1379	1529	1619	1679	1920	2160	2401
Power cons. [W]	243	269	285	296	326	345	357	419	482	545
Current cons. [A]	1.19	1.31	1.38	1.43	1.57	1.65	1.70	1.99	2.27	2.55
EER [BTU/Wh]	4.45	4.57	4.63	4.67	4.69	4.70	4.71	4.58	4.48	4.41

Test conditions

Evaporation pressure	-13°F
Condensing pressure	131°F
Liquid temperature	131°F
Return gas temperature	90°F

LBP: EN12900 115/220V, 50/60Hz, fan cooling F₂

Speed (rpm)	2000	2250	2400	2500	2750	2900	3000	3500	4000	4500
Capacity [BTU/h]	865	948	998	1031	1122	1176	1213	1449	1686	1922
Power cons. [W]	181	195	203	208	229	242	250	298	346	394
Current cons. [A]	0.91	0.98	1.01	1.04	1.13	1.19	1.22	1.44	1.66	1.87
EER [BTU/Wh]	4.77	4.87	4.92	4.96	4.90	4.87	4.85	4.87	4.87	4.88

Test conditions

Evaporation pressure	-31°F
Condensing pressure	104°F
Liquid temperature	104°F
Return gas temperature	68°F

MBP: ASHRAE 115/220V, 50/60Hz, fan cooling F₂

Speed (rpm)	2000	2250	2400	2500	2750	2900	3000	3500	4000	4500
Capacity [BTU/h]	2572	2911	3115	3250	3566	3756	3882	4495	5107	5719
Power cons. [W]	348	394	422	441	481	504	520	620	719	818
Current cons. [A]	1.66	1.87	2.00	2.08	2.26	2.37	2.44	2.89	3.33	3.78
EER [BTU/Wh]	7.40	7.39	7.38	7.37	7.42	7.45	7.46	7.25	7.10	6.99

Test conditions

Evaporation pressure	20°F
Condensing pressure	130°F
Liquid temperature	115°F
Return gas temperature	95°F

MBP: CECOMAF 115/220V, 50/60Hz, fan cooling F₂

Speed (rpm)	2000	2250	2400	2500	2750	2900	3000	3500	4000	4500
Capacity [BTU/h]	2041	2318	2484	2595	2842	2990	3089	3572	4056	4539
Power cons. [W]	330	375	401	419	456	478	493	585	677	769
Current cons. [A]	1.58	1.78	1.91	1.99	2.15	2.25	2.32	2.73	3.15	3.56
EER [BTU/Wh]	6.19	6.19	6.19	6.19	6.23	6.25	6.26	6.11	5.99	5.90

Test conditions

Evaporation pressure	14°F
Condensing pressure	131°F
Liquid temperature	131°F
Return gas temperature	90°F

MBP: EN12900 115/220V, 50/60Hz, fan cooling F₂

Speed (rpm)	2000	2250	2400	2500	2750	2900	3000	3500	4000	4500
Capacity [BTU/h]	2299	2577	2744	2855	3122	3282	3389	3963	4538	5112
Power cons. [W]	305	342	364	378	413	434	448	532	616	700
Current cons. [A]	1.47	1.64	1.74	1.80	1.96	2.05	2.12	2.49	2.87	3.25
EER [BTU/Wh]	7.54	7.54	7.54	7.54	7.56	7.56	7.57	7.45	7.37	7.30

Test conditions

Evaporation pressure	14°F
Condensing pressure	113°F
Liquid temperature	113°F
Return gas temperature	68°F

Optimization Point 115/220V, 50/60Hz, fan cooling F₂

Speed (rpm)	2000	2250	2400	2500	2750	2900	3000	3500	4000	4500
Capacity [BTU/h]	1462	1644	1754	1827	1990	2087	2152	2518	2883	3248
Power cons. [W]	217	238	250	259	284	299	309	368	427	486
Current cons. [A]	1.08	1.17	1.23	1.26	1.38	1.45	1.49	1.76	2.02	2.29
EER [BTU/Wh]	6.73	6.91	7.01	7.07	7.01	6.98	6.96	6.84	6.75	6.68

Test conditions

Evaporation pressure	-13°F
Condensing pressure	95°F
Liquid temperature	95°F
Return gas temperature	90°F

Optimization Point 115/220V, 50/60Hz, fan cooling F₂

Speed (rpm)	2000	2250	2400	2500	2750	2900	3000	3500	4000	4500
Capacity [BTU/h]	2393	2683	2857	2972	3250	3417	3528	4126	4724	5321
Power cons. [W]	305	342	364	378	413	434	448	532	616	700
Current cons. [A]	1.47	1.64	1.74	1.80	1.96	2.05	2.12	2.49	2.87	3.25
EER [BTU/Wh]	7.85	7.85	7.85	7.85	7.87	7.87	7.88	7.76	7.67	7.60

Test conditions

Evaporation pressure	14°F
Condensing pressure	113°F
Liquid temperature	113°F
Return gas temperature	90°F

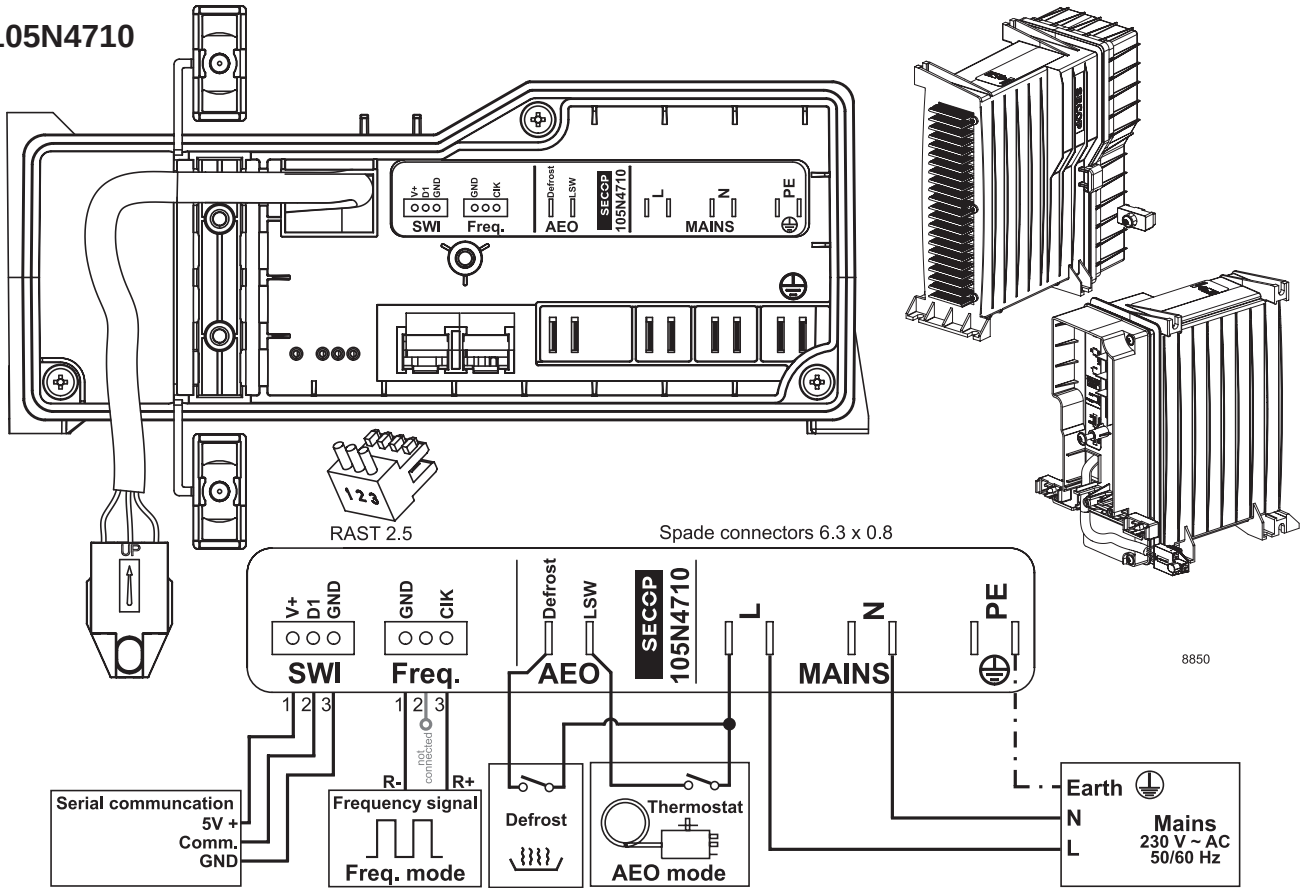
Optimization Point 115/220V, 50/60Hz, fan cooling F₂

Speed (rpm)	2000	2250	2400	2500	2750	2900	3000	3500	4000	4500
Capacity [BTU/h]	4088	4541	4813	4994	5526	5845	6058	7069	8081	9092
Power cons. [W]	372	410	432	447	502	535	556	664	772	879
Current cons. [A]	1.77	1.94	2.04	2.11	2.36	2.51	2.60	3.09	3.57	4.06
EER [BTU/Wh]	10.99	11.08	11.13	11.16	11.01	10.93	10.89	10.65	10.47	10.34

Test conditions

Evaporation pressure	41°F
Condensing pressure	113°F
Liquid temperature	113°F
Return gas temperature	90°F

105N4710



105N4760

