

Model
NLY10CN

Sales code:
105H6164

Compressor Data

Refrigerant(s)	R290
Refr. charge - tech. limit	150g / 5.29oz
Weight	10.90 kg / 24.03lbs
Displacement	10.09 cm³ / 0.62cu.in
Compressors on pallet	80



General - Configurations With NLY10CN

-	Conf. 1	Conf. 2	Conf. 3
Motor configuration	CSIR	RSIR	RSCR
Power supply (nominal)	115 V/60 Hz	115 V/60 Hz	115 V/60 Hz
Number of phases	1	1	1
Voltage range	95-135 V	95-135 V	95-135 V
Approvals	UL	UL	UL
Starting torque	HST	LST	LST
Refrigerant	R290	R290	R290
Application	LBP+MBP	LBP+MBP	LBP+MBP
Hot gas defrost	OK	OK	OK
Long interval pull down	OK	OK	OK

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor

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Compressor Design

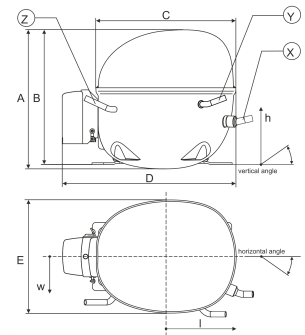
Oil type	POE	Winding resistance main	1.000 Ohm
Oil viscosity	32cSt	Winding resistance aux	5.40 Ohm
Oil quantity	268 / 9.06fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	2,360 cm ³ / 79.80fl.oz	Max. discharge temp.	120°C / 248°F
Motor protection	internal		

Compressor Dimensions

Housing

A Height	203mm / 7.99in
B Height	197mm / 7.76in
C Length shell	205mm / 8.07in
D Length w. cover	254mm / 10.00in
E Width	166mm / 6.54in

[Find 3D Model here](#)



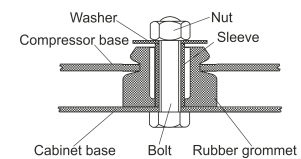
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	21°	155°
Position l/h/w [mm]	132/68.5/56.7 / 5.20/2.70/2.23in	94/101.7/81 / 3.70/4.00/3.19in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

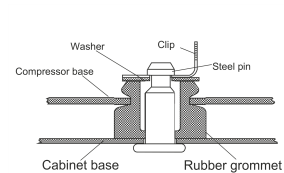


Dimensions in mm [in]

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
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Configuration 1

Sales code:
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Configuration

Motor configuration	CSIR
Power supply (nominal)	115 V/60 Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	95-135 V
Starting torque	HST
Approvals	UL
Starting device type	relay
Run capacitor	-/-
Start capacitor	125 µF
LRA (locked rotor amps / 4s/ U(N))	31.5 A
RLA (rated load amps / 1s/ U(N))	6.2 A
Cut in current (U(N))	31.5 A

Ambient/ machine room temperatures minimum /maximum

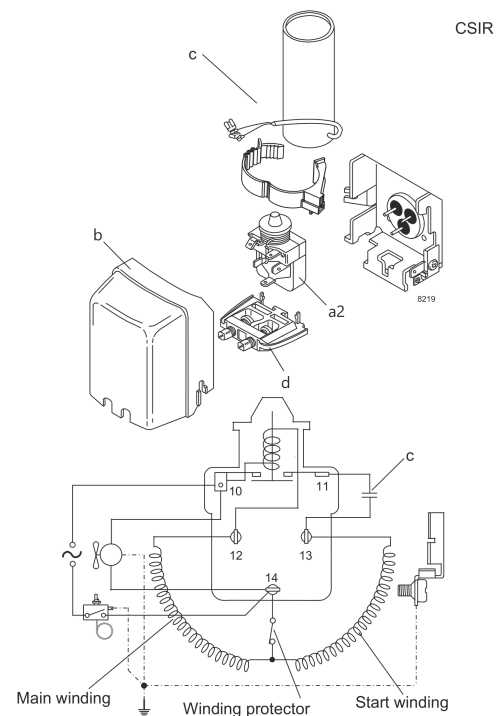
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components

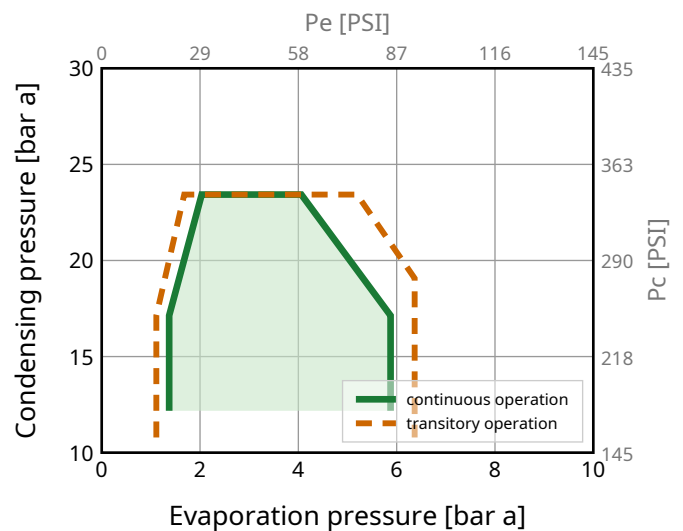
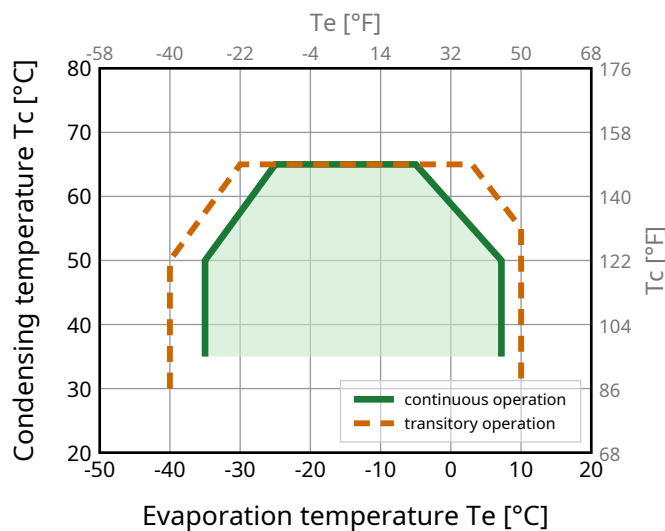
a2 relay 117U7020

c start capacitor (125µF, 6,3mm) 117U5035

b plastic cover 103N2011

d cord relief 103N1010

Operation Pressure Range



Model
NLY10CN

Configuration 1

Sales code:
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Standard Conditions

R290, 115 V/60 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°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	596	2032	512	1.60	5.48	371	4.73	6.05	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	445	1517	382	1.24	4.24	358	4.64	5.57	CECOMAF LBP
-35 -31	40 104	20 68	40 104	340	1160	292	1.23	4.20	276	4.26	3.90	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1068	3646	919	2.15	7.33	497	5.63	12.23	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	848	2895	730	1.78	6.09	475	5.48	10.79	CECOMAF MBP
-10 14	45 113	20 68	45 113	937	3196	805	2.15	7.32	437	5.24	11.53	EN12900 MBP

Performance Tables

R290, 115 V/60 Hz, CSIR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	325	1109	280	1.17	3.99	278	4.23	3.66
-30	-22	414	1412	356	1.32	4.49	314	4.43	4.67
-20	-4	655	2235	563	1.73	5.89	379	4.83	7.45
-10	14	974	3322	837	2.23	7.61	437	5.24	11.18
0	32	1360	4641	1170	2.78	9.47	490	5.65	15.82
7.2	45	1675	5715	1440	3.18	10.84	527	5.95	19.70

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

-35	-31	293	999	252	1.09	3.71	270	4.07	3.65
-30	-22	356	1216	306	1.13	3.86	315	4.36	4.45
-20	-4	557	1900	479	1.40	4.77	398	4.92	7.01
-10	14	848	2895	730	1.78	6.09	475	5.48	10.79
0	32	1221	4167	1050	2.22	7.58	549	6.01	15.75
7.2	45	1535	5236	1320	2.55	8.69	602	6.38	20.05

Model
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Configuration 2

Sales code:
105H6164

Configuration

Motor configuration	RSIR
Power supply (nominal)	115 V/60 Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	95-135 V
Starting torque	LST
Approvals	UL
Starting device type	PTC
Run capacitor	-/-
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	31.5 A
RLA (rated load amps / 1s/ U(N))	6.2 A
Cut in current (U(N))	31.5 A

Ambient/ machine room temperatures minimum /maximum

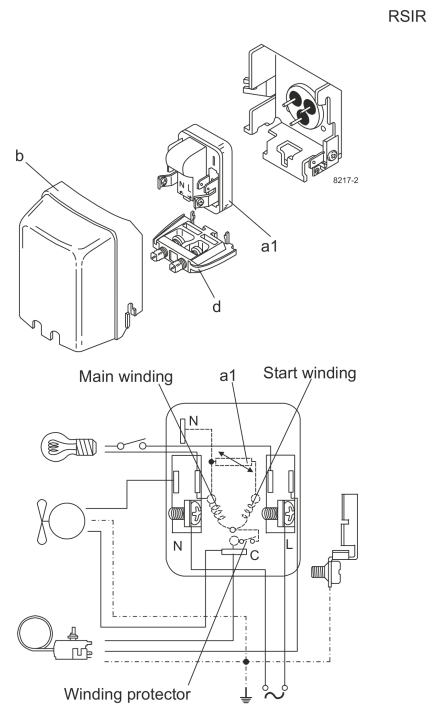
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



Components

a1 e-PTC starter (115V, 50hm, 6.3mm, 4.8-cap) 103N0057

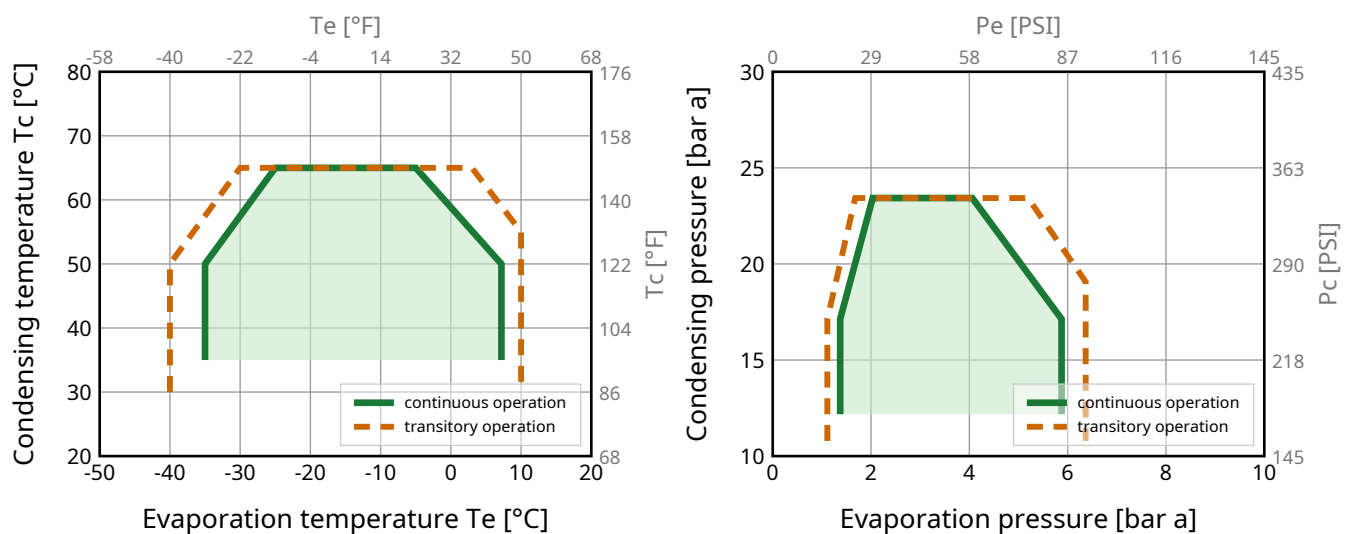
b plastic cover 103N2011

d cord relief 103N1010

Alternative components

a1 e-PTC starter 103N0058

Operation Pressure Range



Model
NLY10CN

Configuration 2

Sales code:
105H6164

Standard Conditions

R290, 115 V/60 Hz, RSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°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	596	2032	512	1.60	5.48	371	4.73	6.05	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	445	1517	382	1.24	4.24	358	4.64	5.57	CECOMAF LBP
-35 -31	40 104	20 68	40 104	340	1160	292	1.23	4.20	276	4.26	3.90	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1068	3646	919	2.15	7.33	497	5.63	12.23	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	848	2895	730	1.78	6.09	475	5.48	10.79	CECOMAF MBP
-10 14	45 113	20 68	45 113	937	3196	805	2.15	7.32	437	5.24	11.53	EN12900 MBP

Performance Tables

R290, 115 V/60 Hz, RSIR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	325	1109	280	1.17	3.99	278	4.23	3.66
-30	-22	414	1412	356	1.32	4.49	314	4.43	4.67
-20	-4	655	2235	563	1.73	5.89	379	4.83	7.45
-10	14	974	3322	837	2.23	7.61	437	5.24	11.18
0	32	1360	4641	1170	2.78	9.47	490	5.65	15.82
7.2	45	1675	5715	1440	3.18	10.84	527	5.95	19.70

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

-35	-31	293	999	252	1.09	3.71	270	4.07	3.65
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-10	14	848	2895	730	1.78	6.09	475	5.48	10.79
0	32	1221	4167	1050	2.22	7.58	549	6.01	15.75
7.2	45	1535	5236	1320	2.55	8.69	602	6.38	20.05

Model
NLY10CN

Configuration 3

Sales code:
105H6164

Configuration

Motor configuration	RSCR
Power supply (nominal)	115 V/60 Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	95-135 V
Starting torque	LST
Approvals	UL
Starting device type	PTC
Run capacitor	15 μF
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	31.5 A
RLA (rated load amps / 1s/ U(N))	6.2 A
Cut in current (U(N))	31.5 A

Ambient/ machine room temperatures minimum /maximum

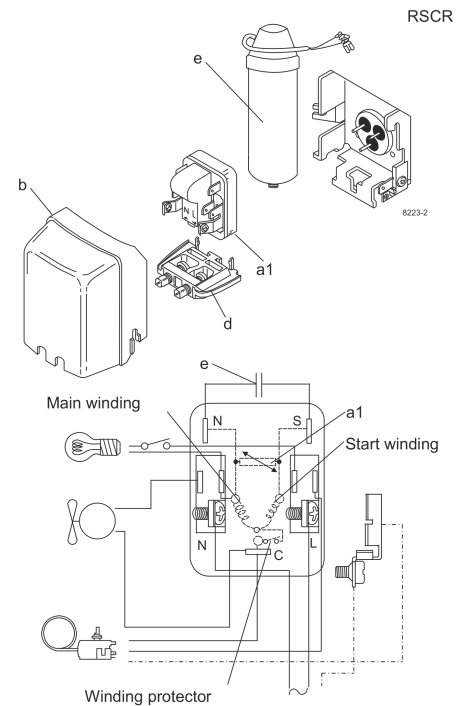
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



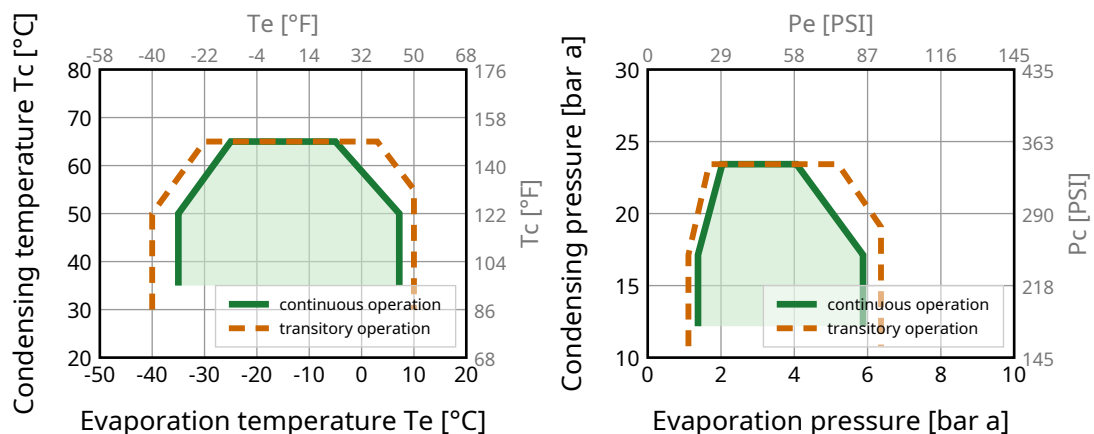
Components

a1 e-PTC starter 103N0058
e run capacitor (15 μ F, 6.3mm) 117-7118
b plastic cover 103N2011
d cord relief 103N1010
 bracket for run capacitor 117-0300
 screw M4x8mm 117-0301

Alternative components

a1 e-PTC starter (115V, 50hm, 6.3mm, 4.8-cap) 103N0057
e run capacitor (15 μ F, 4.8mm) 117-7120
b plastic cover 103N2011
d cord relief 103N1010
 bracket for run capacitor 117-0300
 screw M4x8mm 117-0301

Operation Pressure Range



Model

NLY10CN

Configuration 3

Sales code:

105H6164

Standard Conditions

R290, 115 V/60 Hz, RSCR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°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	601	2049	517	1.70	5.79	354	4.52	6.10	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	449	1533	386	1.32	4.50	341	4.42	5.63	CECOMAF LBP
-35 -31	40 104	20 68	40 104	342	1167	294	1.31	4.47	262	4.03	3.93	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1082	3692	931	2.30	7.84	471	5.34	12.39	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	858	2929	738	1.90	6.50	451	5.20	10.92	CECOMAF MBP
-10 14	45 113	20 68	45 113	945	3224	813	2.27	7.74	417	5.00	11.63	EN12900 MBP

Performance Tables

R290, 115 V/60 Hz, RSCR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	331	1130	285	1.27	4.33	261	3.97	3.73
-30	-22	417	1423	359	1.40	4.76	299	4.20	4.71
-20	-4	659	2247	566	1.81	6.19	363	4.62	7.49
-10	14	982	3351	845	2.36	8.04	417	5.00	11.28
0	32	1374	4690	1182	2.95	10.07	466	5.37	15.98
7.2	45	1692	5774	1455	3.37	11.51	502	5.65	19.91

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

-35	-31	306	1045	263	1.22	4.16	251	3.80	3.81
-30	-22	364	1241	313	1.22	4.16	298	4.12	4.54
-20	-4	561	1915	483	1.48	5.04	380	4.70	7.07
-10	14	858	2929	738	1.90	6.50	451	5.20	10.92
0	32	1242	4237	1068	2.40	8.20	517	5.66	16.02
7.2	45	1564	5336	1345	2.77	9.44	565	5.98	20.43