

NLY10CN High Energy-optimized LBP/MBP Compressor R290 115-127V 60Hz

General

Code number	105H6164
Approvals	UL984
Compressors on pallet	80

Application

Application	LBP/MBP			
	Hz	50	60	
Frequency	Hz	50	60	
Evaporating temperature	°F	-	-31 to 45	
Voltage range	V	-	95 - 135	
Max. condensing temperature continuous (short)	°F	-	149 (149)	
Max. winding temperature continuous (short)	°F	-	257 (275)	

Cooling requirements

Frequency	Hz	50			60		
		LBP	MBP	HBP	LBP	MBP	HBP
90°F		-	-	-	F ₂	F ₂	-
100°F		-	-	-	F ₂	F ₂	-
110°F		-	-	-	F ₂	F ₂	-
Remarks on application:							

Motor

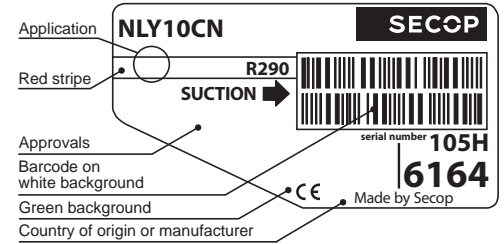
Motor type	CSIR/RSIR/RSCR		
LRA (rated after 4 sec. UL984), HST LST	A	31.5	33.1
Cut in Current, HST LST	A	31.5	40.6
Resistance, main start winding (77°F)	Ω	1.0	5.4

Design

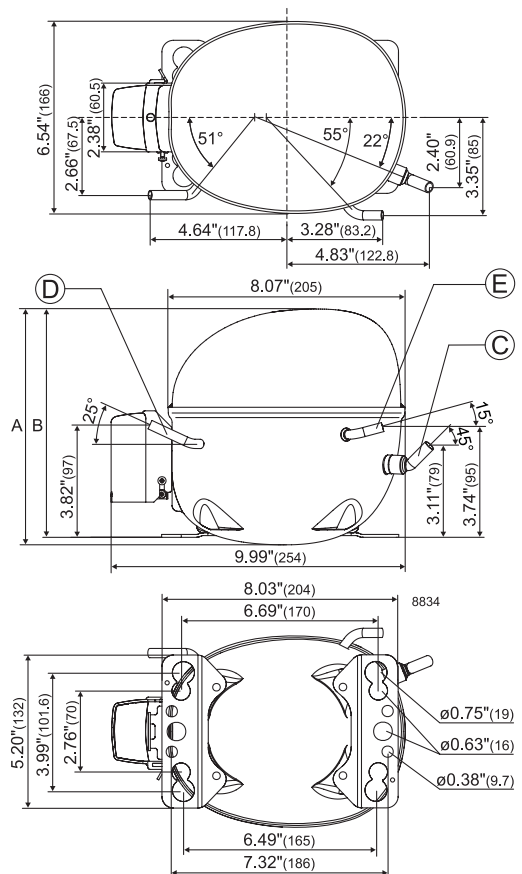
Displacement	cu.in	0.62
Oil quantity (type)	fl.oz.	10.2 (polyolester)
Maximum refrigerant charge	oz.	5.3
Free gas volume in compressor	fl.oz.	79.8
Weight without electrical equipment	lbs.	24.0

Dimensions

Height	inch	A	7.99
		B	7.76
		B1	-
		B2	-
Suction connector	location, I.D. in. angle	C	0.320-0.327 45°
		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 15°
		material comment	Copper Rubber plug
Oil cooler connector	location, I.D. in. angle	F	-
		material comment	-
Remarks:			



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



ASHRAE LBP

115V, 60Hz, fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in BTU/h			1250	1572	1873	2021	2591	3276	3581	4071	4969	5161	5965	6070	6499		
Power cons. in W			275	324	357	371	414	456	473	497	537	545	578	582	598		
Current cons. in A			4.11	4.42	4.64	4.73	5.04	5.34	5.46	5.64	5.93	5.99	6.21	6.24	6.35		
EER in BTU/Wh			4.54	4.85	5.25	5.45	6.25	7.18	7.57	8.19	9.25	9.46	10.3	10.4	10.9		

ASHRAE MBP/HBP

115V, 60Hz, fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in BTU/h			1118	1405	1674	1805	2313	2923	3194	3629	4425	4595	5306	5398	5776		
Power cons. in W			273	321	353	367	410	452	468	492	531	539	570	574	590		
Current cons. in A			4.11	4.42	4.64	4.73	5.04	5.34	5.46	5.64	5.93	5.99	6.21	6.24	6.35		
EER in BTU/Wh			4.10	4.37	4.74	4.92	5.64	6.47	6.83	7.38	8.33	8.52	9.30	9.40	9.79		

EN 12900 LBP

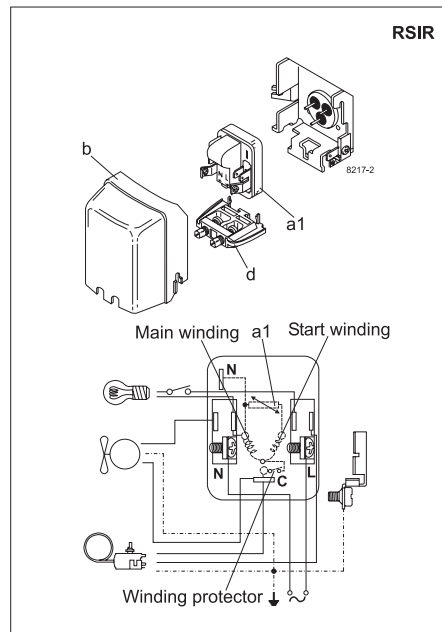
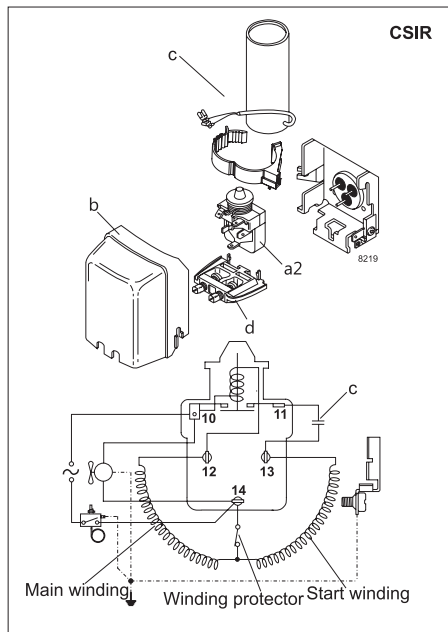
115V, 60Hz, fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in W			354	465	556	599	756	935	1011	1132	1348	1393	1580	1604	1702		
Power cons. in W			288	339	374	388	435	479	497	523	567	576	611	616	634		
Current cons. in A			4.11	4.42	4.64	4.73	5.04	5.34	5.46	5.64	5.93	5.99	6.21	6.24	6.35		
COP in W/W			1.23	1.37	1.49	1.54	1.74	1.95	2.03	2.16	2.38	2.42	2.58	2.60	2.68		

EN 12900 MBP

115V, 60Hz, fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in W			326	427	512	553	704	877	953	1073	1288	1333	1521	1546	1645		
Power cons. in W			295	337	364	375	411	445	459	478	510	517	543	546	559		
Current cons. in A			4.25	4.47	4.63	4.69	4.92	5.14	5.24	5.37	5.60	5.65	5.83	5.85	5.95		
COP in W/W			1.11	1.27	1.41	1.47	1.71	1.97	2.08	2.24	2.52	2.58	2.80	2.83	2.94		



Accessories for	NLY10CN	Figure	Code number
ePTC starting device	1/4 in. spade connectors	a1	103N0058
Starting relay	1/4 in. spade connectors	a2	117U7020
Start. capacitor 125 µF	1/4 in. spade connectors	c	117U5035
Cover		b	103N2011
Cord relief		d	103N1010

Test conditions	EN 12900		ASHRAE	
	LBP	MBP	LBP	MBP
Condensing temperature	104°F	113°F	130°F	130°F
Ambient temperature	90°F	90°F	90°F	90°F
Suction gas temperature	68°F	68°F	90°F	95°F
Liquid temperature	no subcooling		90°F	115°F

Mounting accessories	Code number
Bolt joint for one comp. Ø: 3/4 in.	118-1949
Bolt joint for one comp. Ø: 5/8 in.	118-1946
Snap-on for one comp. Ø: 5/8 in.	118-1947

ASHRAE LBP

115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in BTU/h			1301	1598	1892	2038	2611	3309	3621	4123	5045	5242	6068	6175	6614		
Power cons. in W			257	308	340	354	395	434	449	471	507	514	543	547	562		
Current cons. in A			3.85	4.20	4.42	4.52	4.81	5.08	5.19	5.34	5.60	5.64	5.84	5.87	5.97		
EER in BTU/Wh			5.06	5.19	5.56	5.76	6.60	7.62	8.06	8.75	9.95	10.2	11.2	11.3	11.8		

ASHRAE MBP/HBP

115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in BTU/h			1164	1429	1690	1821	2331	2952	3230	3675	4493	4667	5397	5492	5879		
Power cons. in W			255	305	337	350	391	429	444	466	501	508	536	540	555		
Current cons. in A			3.85	4.20	4.42	4.52	4.81	5.08	5.19	5.34	5.60	5.64	5.84	5.87	5.97		
EER in BTU/Wh			4.57	4.69	5.02	5.20	5.96	6.87	7.27	7.89	8.97	9.19	10.1	10.2	10.6		

EN 12900 LBP

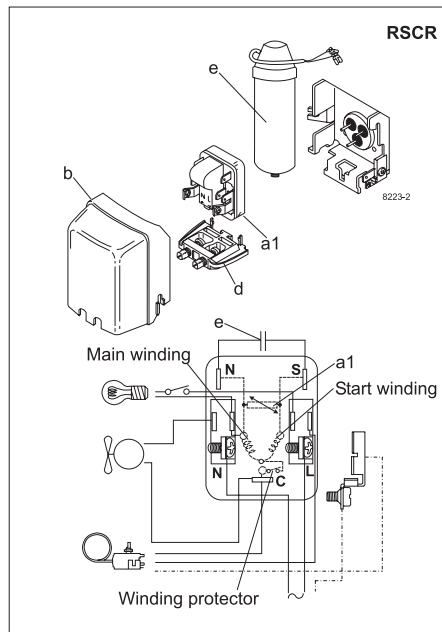
115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in W			356	468	562	606	767	950	1029	1152	1372	1418	1607	1631	1730		
Power cons. in W			269	322	356	370	415	456	472	496	535	543	575	579	596		
Current cons. in A			3.85	4.20	4.42	4.52	4.81	5.08	5.19	5.34	5.60	5.64	5.84	5.87	5.97		
COP in W/W			1.32	1.45	1.58	1.64	1.85	2.08	2.18	2.32	2.56	2.61	2.79	2.82	2.90		

EN 12900 MBP

115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F₂

Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in W			332	430	515	556	708	885	961	1083	1301	1347	1537	1562	1661		
Power cons. in W			277	321	348	359	394	426	438	456	485	491	516	519	532		
Current cons. in A			4.00	4.25	4.42	4.49	4.70	4.91	4.99	5.12	5.32	5.37	5.54	5.56	5.65		
COP in W/W			1.20	1.34	1.48	1.55	1.80	2.08	2.20	2.38	2.68	2.74	2.98	3.01	3.12		



Accessories for	NLY10CN	Figure	Code number
ePTC starting device	1/4 in. spade connectors	a1	103N0058
Run capacitor 15 µF (optional)	1/4 in. spade connectors	e	117-7118
Cover		b	103N2011
Cord relief		d	103N1010

Test conditions	EN 12900		ASHRAE	
	LBP	MBP	LBP	MBP
Condensing temperature	104°F	113°F	130°F	130°F
Ambient temperature	90°F	90°F	90°F	90°F
Suction gas temperature	68°F	68°F	90°F	95°F
Liquid temperature	no subcooling		90°F	115°F

Mounting accessories	Code number	
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Snap-on for one comp.	Ø: 5/8 in.	118-1947

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