

NLE10CN Energy-optimized LBP/MBP Compressor R290 115-127V 60Hz

General

Code number	105H6194
Approvals	UL984
Compressors on pallet	80

Application

Application	LBP/MBP			
Frequency	Hz	50	60	
Evaporating temperature	°F	–	-31 to 45	
Voltage range	V	–	103 - 127	
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
90°F		—	—	—	F ₂	F ₂	—
100°F		—	—	—	F ₂	F ₂	—
110°F		—	—	—	F ₂	F ₂	—
Remarks on application:							

Motor

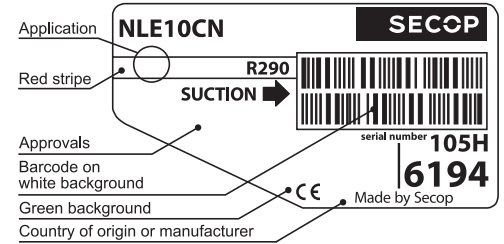
Motor type	CSIR/RSIR/RSCR			
LRA (rated after 4 sec. UL984), HST LST	A	34.5	29.2	
Cut in Current, HST LST	A	34.5	38.6	
Resistance, main start winding (77°F)	Ω	1.6	4.4	

Design

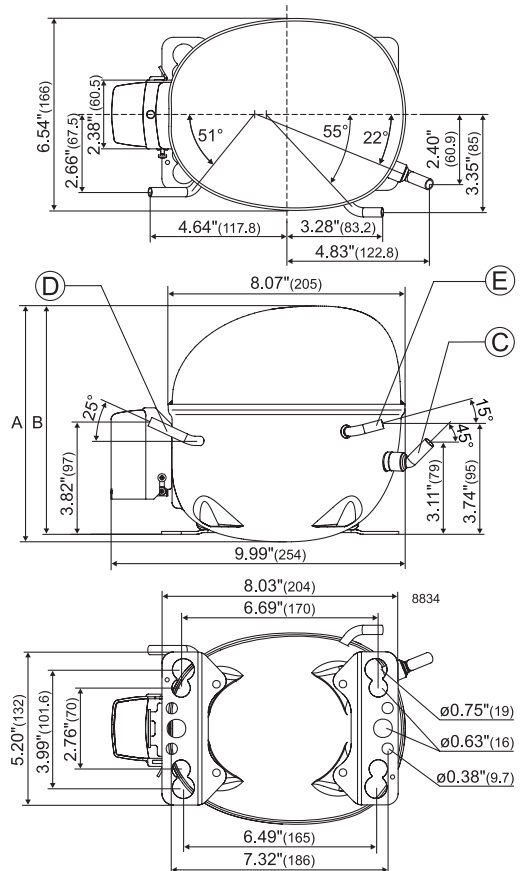
Displacement	cu.in	0.62
Oil quantity (type)	fl.oz.	10.2 (polyolester)
Maximum refrigerant charge	oz.	5.3
Free gas volume in compressor	fl.oz.	79.8
Weight without electrical equipment	lbs.	24.0

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 LBP115V, 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			1216	1598	1919	2071	2638	3304	3599	4073	4950	5138	5938	6043	6475		
Power cons. in W			306	354	386	399	441	481	498	522	565	574	610	615	634		
Current cons. in A			4.62	4.91	5.10	5.18	5.43	5.69	5.79	5.95	6.24	6.30	6.56	6.60	6.74		
EER in BTU/Wh			3.97	4.51	4.97	5.19	5.99	6.87	7.23	7.80	8.76	8.96	9.73	9.83	10.2		

ASHRAE MBP/HBP115V, 60Hz, fan cooling F₂

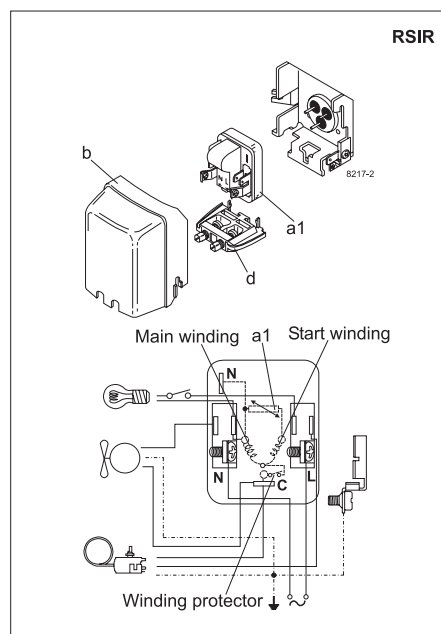
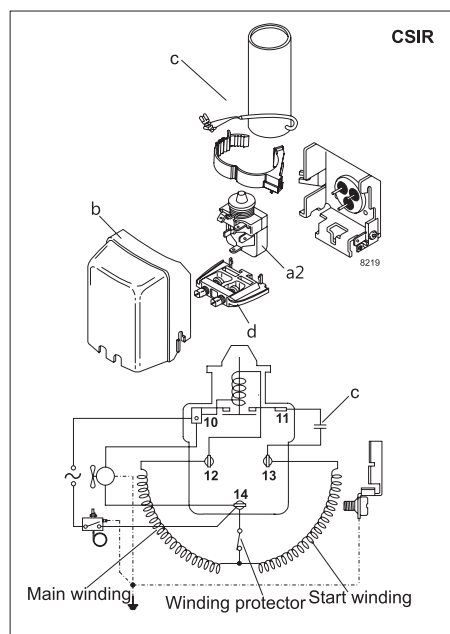
Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in BTU/h			1087	1428	1715	1850	2356	2948	3211	3631	4408	4575	5281	5374	5755		
Power cons. in W			303	351	382	395	436	476	492	517	558	567	603	607	626		
Current cons. in A			4.62	4.91	5.10	5.18	5.43	5.69	5.79	5.95	6.24	6.30	6.56	6.60	6.74		
EER in BTU/Wh			3.58	4.07	4.49	4.69	5.40	6.19	6.52	7.03	7.90	8.07	8.76	8.85	9.19		

EN 12900 LBP115V, 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			375	480	566	607	757	931	1008	1131	1357	1406	1610	1637	1748		
Power cons. in W			320	371	404	418	462	506	523	550	596	606	646	651	673		
Current cons. in A			4.62	4.91	5.10	5.18	5.43	5.69	5.79	5.95	6.24	6.30	6.56	6.60	6.74		
COP in W/W			1.17	1.29	1.4	1.45	1.64	1.84	1.93	2.06	2.28	2.32	2.49	2.51	2.6		

EN 12900 MBP115V, 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			340	441	524	563	708	877	952	1071	1290	1337	1536	1562	1669		
Power cons. in W			306	349	377	389	428	466	482	506	549	558	596	601	621		
Current cons. in A			4.54	4.78	4.94	5.00	5.2	5.40	5.48	5.60	5.82	5.87	6.06	6.09	6.20		
COP in W/W			1.11	1.26	1.39	1.45	1.66	1.88	1.97	2.12	2.35	2.40	2.58	2.60	2.69		



Accessories for	NLE10CN	Figure	Code number
ePTC starting device	1/4 in. spade connectors	a1	103N0058
Starting relay	1/4 in. spade connectors	a2	117U7018
Start. capacitor 280 µF	1/4 in. spade connectors	c	117U5025
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 LBP115V, 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			1235	1624	1950	2104	2681	3358	3658	4140	5030	5222	6034	6141	6581		
Power cons. in W			283	327	356	368	407	444	460	482	522	530	563	568	586		
Current cons. in A			4.27	4.53	4.71	4.78	5.02	5.25	5.35	5.50	5.76	5.82	6.06	6.09	6.22		
EER in BTU/Wh			4.37	4.96	5.48	5.72	6.59	7.56	7.96	8.58	9.64	9.86	10.7	10.8	11.2		

ASHRAE MBP/HBP115V, 60Hz, RC 15 µF, ePTC consumption incl., fan cooling F₂

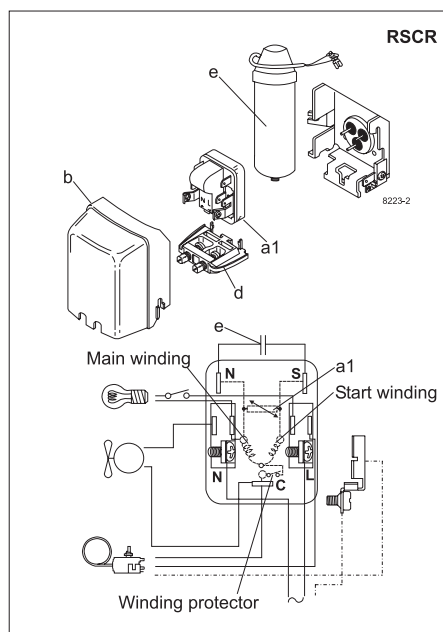
Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in BTU/h			1105	1451	1743	1880	2394	2996	3263	3690	4480	4649	5367	5461	5849		
Power cons. in W			280	324	353	364	403	440	455	477	516	524	557	561	578		
Current cons. in A			4.27	4.53	4.71	4.78	5.02	5.25	5.35	5.50	5.76	5.82	6.06	6.09	6.22		
EER in BTU/Wh			3.94	4.48	4.94	5.16	5.95	6.81	7.18	7.74	8.69	8.88	9.64	9.74	10.1		

EN 12900 LBP115V, 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			382	487	575	616	769	947	1025	1150	1379	1429	1637	1664	1776		
Power cons. in W			296	342	373	386	427	467	483	508	550	559	597	601	621		
Current cons. in A			4.27	4.53	4.71	4.78	5.02	5.25	5.35	5.5	5.76	5.82	6.06	6.09	6.22		
COP in W/W			1.29	1.42	1.54	1.6	1.8	2.03	2.12	2.26	2.51	2.55	2.74	2.77	2.86		

EN 12900 MBP115V, 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			346	448	533	572	720	892	967	1088	1311	1359	1561	1587	1696		
Power cons. in W			282	322	348	359	395	431	445	467	507	515	550	555	574		
Current cons. in A			4.19	4.42	4.56	4.62	4.81	4.99	5.06	5.17	5.37	5.42	5.60	5.62	5.72		
COP in W/W			1.23	1.39	1.53	1.59	1.82	2.07	2.17	2.33	2.59	2.64	2.84	2.86	2.96		



Accessories for	NLE10CN	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

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