

NLE8.8CN Energy-optimized LBP/MBP Compressor R290 115-127V 60Hz

General

Code number (pre-assembled CSIR start equipment)	105H6096
Approvals	UL984
Compressors on pallet	80

Application

Application	LBP/MBP			
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		
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

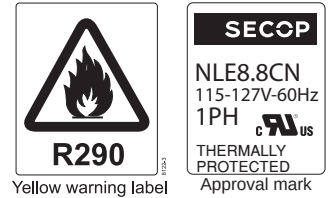
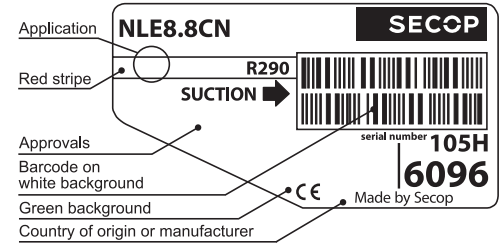
Motor type	CSIR		
LRA (rated after 4 sec. UL984), HST LST	A	32.0	–
Cut in Current, HST LST	A	32.0	–
Resistance, main start winding (77°F)	Ω	1.6	5.1

Design

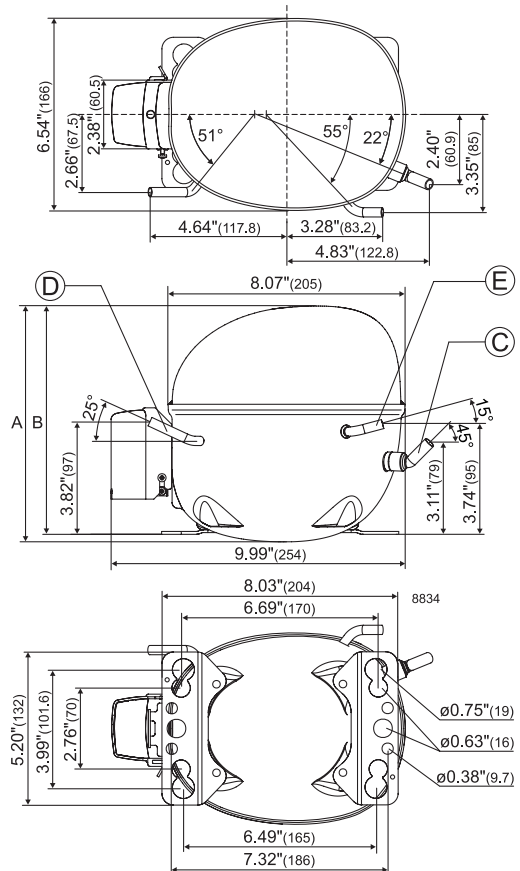
Displacement	cu.in	0.53
Oil quantity (type)	fl.oz.	10.2 (polyolester)
Maximum refrigerant charge	oz.	5.3
Free gas volume in compressor	fl.oz.	79.8
Weight without electrical equipment	lbs.	24.0

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			1033	1348	1619	1749	2237	2815	3072	3486	4253	4418	5118	5210	5588		
Power cons. in W			251	289	315	325	361	399	414	439	485	495	537	543	567		
Current cons. in A			3.85	4.04	4.18	4.24	4.46	4.71	4.82	5.00	5.36	5.44	5.78	5.83	6.02		
EER in BTU/Wh			4.12	4.66	5.14	5.37	6.19	7.06	7.42	7.94	8.77	8.93	9.52	9.59	9.86		

ASHRAE MBP/HBP115V, 60Hz, fan cooling F₂

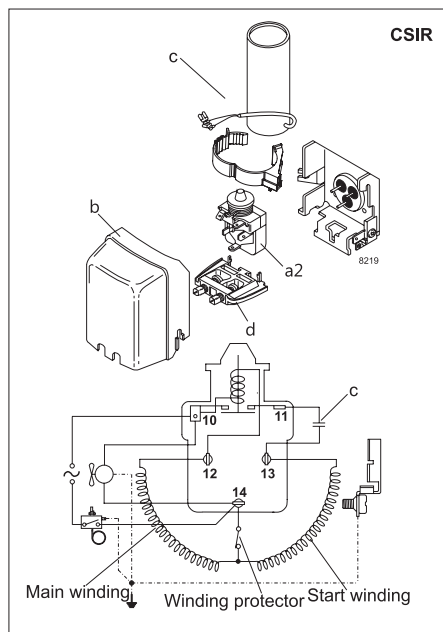
Evap. temp. in °F	-49	-40	-30	-20	-13	-10	0	10	14	20	30	32	40	41	45	50	59
Capacity in BTU/h			924	1205	1447	1562	1997	2512	2740	3108	3787	3933	4552	4633	4967		
Power cons. in W			248	286	312	322	358	394	410	434	479	489	531	536	560		
Current cons. in A			3.85	4.04	4.18	4.24	4.46	4.71	4.82	5.00	5.36	5.44	5.78	5.83	6.02		
EER in BTU/Wh			3.72	4.21	4.64	4.85	5.59	6.37	6.69	7.16	7.9	8.05	8.58	8.64	8.87		

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			316	407	483	518	651	805	872	981	1180	1222	1402	1425	1522		
Power cons. in W			262	303	330	341	379	419	436	462	512	522	569	575	601		
Current cons. in A			3.85	4.04	4.18	4.24	4.46	4.71	4.82	5.00	5.36	5.44	5.78	5.83	6.02		
COP in W/W			1.21	1.35	1.46	1.52	1.72	1.92	2.00	2.12	2.31	2.34	2.46	2.48	2.53		

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			290	376	448	482	609	758	823	928	1120	1162	1336	1359	1452		
Power cons. in W			260	292	314	323	356	392	408	434	483	494	542	548	576		
Current cons. in A			3.84	3.99	4.10	4.15	4.33	4.54	4.64	4.80	5.13	5.20	5.52	5.56	5.74		
COP in W/W			1.12	1.29	1.43	1.49	1.71	1.93	2.02	2.14	2.32	2.35	2.47	2.48	2.52		



Accessories for	NLE8.8CN	Figure	Code number
Starting relay	1/4 in. spade connectors	a2	117U7014
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

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