

Datasheets

NLE11MN Energy-optimized LBP/MBP R290 220-240V 50Hz

General

Code number	105H6177
Approvals	EN 60335-2-34 w. Annex AA
Compressors on pallet	80

Application

Application	MBP					
	Hz	50	60			
Frequency	Hz	50	60			
Evaporating temperature	°C	-30 to 10	-			
Voltage range	V	198 to 254	-			
Max. condensing temperature continuous (short)	°C	55 (65)	-			
Max. winding temperature continuous (short)	°C	125 (135)	-			

Cooling requirements

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

Remarks on application:

Motor

Motor type	CSIR/RSIR/RSCR		
LRA (rated after 4 sec. UL984), HST LST	A	13.7	14.5
Cut in Current, HST LST	A	13.7	19.4
Resistance, main start winding (25°C)	Ω	4.9	8.9

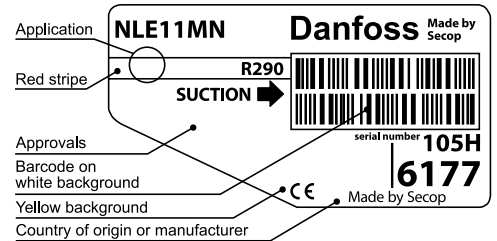
Design

Displacement	cm ³	11.15
Oil quantity (type)	cm ³	320 (polyolester)
Maximum refrigerant charge	g	150
Free gas volume in compressor	cm ³	2360
Weight without electrical equipment	kg	11.7

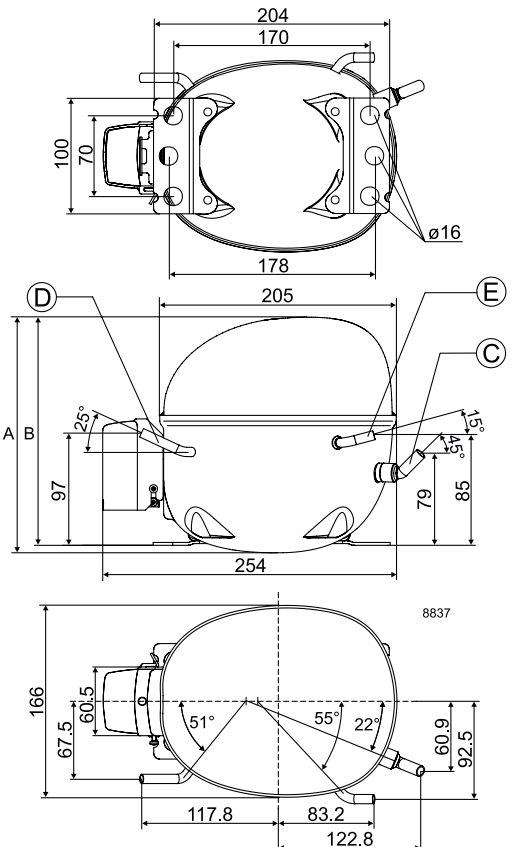
Dimensions

Height	mm	A	203
		B	197
		B1	-
		B2	-
Suction connector	location/I.D. mm angle	C	8.2 45°
	material comment		Copper Rubber plug
Process connector	location/I.D. mm angle	D	6.2 25°
	material comment		Copper Rubber plug
Discharge connector	location/I.D. mm angle	E	6.2 15°
	material comment		Copper Rubber plug
Oil cooler connector	location/I.D. mm angle	F	-
	material comment		-
Connector tolerance	I.D. mm		±0.09

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



EN 12900 LBP

 220V, 50Hz, fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W				410	515	555	639	784	950	1073	1140	1354	1592	1706	1858		
Power cons. in W				297	329	340	362	394	425	444	454	480	501	509	518		
Current cons. in A				2.18	2.26	2.29	2.36	2.46	2.56	2.62	2.65	2.73	2.78	2.79	2.79		
COP in W/W				1.38	1.56	1.63	1.77	1.99	2.24	2.41	2.51	2.82	3.18	3.35	3.59		

EN 12900 MBP

 220V, 50Hz, fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W				381	478	516	594	730	886	1001	1064	1265	1491	1598	1742		
Power cons. in W				306	340	351	374	410	444	466	476	506	533	543	555		
Current cons. in A				2.20	2.28	2.32	2.39	2.51	2.63	2.71	2.75	2.85	2.93	2.96	2.98		
COP in W/W				1.25	1.41	1.47	1.59	1.78	2.00	2.15	2.23	2.50	2.80	2.94	3.14		

ASHRAE LBP

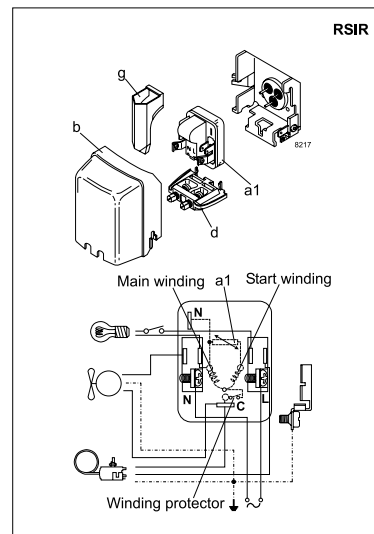
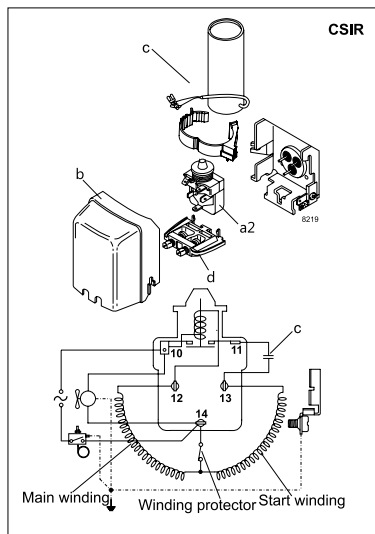
 220V, 50Hz, fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W				419	522	562	647	795	967	1095	1165	1390	1644	1765	1928		
Power cons. in W				304	341	355	381	421	461	487	500	537	571	585	601		
Current cons. in A				2.23	2.33	2.37	2.45	2.60	2.75	2.86	2.91	3.06	3.20	3.26	3.32		
COP in W/W				1.38	1.53	1.58	1.70	1.89	2.10	2.25	2.33	2.59	2.88	3.02	3.21		

ASHRAE MBP/HBP

 220V, 50Hz, fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W				374	466	502	578	710	863	976	1038	1238	1462	1569	1712		
Power cons. in W				301	338	351	377	417	456	482	495	531	564	578	594		
Current cons. in A				2.23	2.33	2.37	2.45	2.60	2.75	2.86	2.91	3.06	3.20	3.26	3.32		
COP in W/W				1.25	1.38	1.43	1.53	1.70	1.89	2.03	2.10	2.33	2.59	2.72	2.88		



Accessories for	NLE11MN	Figure	Code number
ePTC starting device	6.3 mm spade connectors	a1	-
	4.8 mm spade connectors		103N0050
Starting relay	6.3 mm spade connectors	a2	117U7005
Start. capacitor 80 µF	6.3 mm spade connectors	c	117U5015
Cover		b	103N2010
Cord relief		d	103N1010
Protection screen for PTC		g	-

Test conditions	EN 12900		ASHRAE	
	LBP	MBP	LBP	MBP
Condensing temperature	40°C	45°C	54.4°C	54.4°C
Ambient temperature	32°C	32°C	32.2°C	35°C
Suction gas temperature	20°C	20°C	32.2°C	35°C
Liquid temperature	no subcooling		32.2°C	46.1°C

Mounting accessories	Code number	
Bolt joint for one comp.	Ø: 16 mm	118-1917
Bolt joint in quantities	Ø: 16 mm	118-1918
Snap-on in quantities	Ø: 16 mm	118-1919

EN 12900 LBP 220V, 50Hz, RC 4 µF, ePTC consumption incl., fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W				411	517	557	641	787	955	1078	1146	1362	1605	1720	1875		
Power cons. in W				283	314	325	346	377	407	426	435	459	479	486	494		
Current cons. in A				2.08	2.16	2.19	2.25	2.35	2.45	2.51	2.54	2.61	2.65	2.66	2.66		
COP in W/W				1.45	1.64	1.71	1.85	2.09	2.34	2.53	2.64	2.97	3.35	3.54	3.80		

EN 12900 MBP 220V, 50Hz, RC 4 µF, ePTC consumption incl., fan cooling F₂

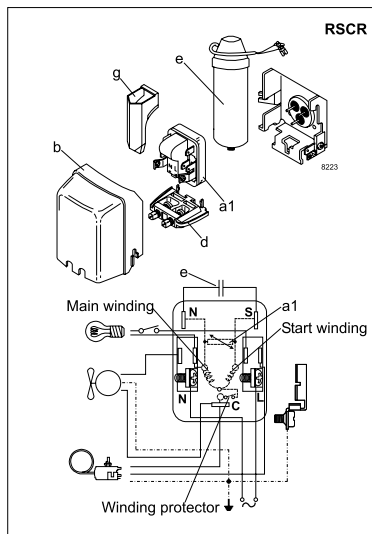
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W				382	480	517	596	732	890	1006	1069	1273	1502	1611	1758		
Power cons. in W				291	324	336	358	392	425	446	456	485	509	518	528		
Current cons. in A				2.10	2.18	2.22	2.29	2.40	2.52	2.59	2.63	2.73	2.80	2.82	2.84		
COP in W/W				1.31	1.48	1.54	1.67	1.87	2.09	2.26	2.34	2.63	2.95	3.11	3.33		

ASHRAE LBP 220V, 50Hz, RC 4 µF, ePTC consumption incl., fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W				420	524	564	650	798	971	1100	1171	1399	1656	1780	1946		
Power cons. in W				290	326	339	364	403	442	467	479	514	546	558	573		
Current cons. in A				2.12	2.22	2.26	2.34	2.49	2.64	2.74	2.79	2.93	3.06	3.11	3.16		
COP in W/W				1.45	1.61	1.67	1.78	1.98	2.20	2.36	2.44	2.72	3.04	3.19	3.40		

ASHRAE MBP/HBP 220V, 50Hz, RC 4 µF, ePTC consumption incl., fan cooling F₂

Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W				375	468	504	580	712	866	981	1044	1245	1473	1582	1728		
Power cons. in W				287	323	335	360	399	437	461	474	508	539	551	566		
Current cons. in A				2.12	2.22	2.26	2.34	2.49	2.64	2.74	2.79	2.93	3.06	3.11	3.16		
COP in W/W				1.31	1.45	1.5	1.61	1.79	1.98	2.13	2.2	2.45	2.73	2.87	3.06		



Accessories for	NLE11MN	Figure	Code number
ePTC starting device	6.3 mm spade connectors	a1	-
	4.8 mm spade connectors		103N0050
Run capacitor 4 µF (optional)	4.8 mm spade connectors	e	117-7119
Cover		b	103N2010
Cord relief		d	103N1010
Protection screen for PTC		g	-

Test conditions	EN 12900		ASHRAE	
	LBP	MBP	LBP	MBP
Condensing temperature	40°C	45°C	54.4°C	54.4°C
Ambient temperature	32°C	32°C	32.2°C	35°C
Suction gas temperature	20°C	20°C	32.2°C	35°C
Liquid temperature	no subcooling		32.2°C	46.1°C

Mounting accessories	Code number	
Bolt joint for one comp.	Ø: 16 mm	118-1917
Bolt joint in quantities	Ø: 16 mm	118-1918
Snap-on in quantities	Ø: 16 mm	118-1919

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.