

Datasheets

NLE12.6CNL Energy-optimized LBP R290 220-240V 50Hz

General

Code number	105H6378
Approvals	EN 60335-2-34 w. Annex AA
Compressors on pallet	80

Application

Application	LBP		
Frequency	Hz	50	60
Evaporating temperature	°C	-40 to -5	-
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		
Application		LBP	MBP	HBP	LBP	MBP	HBP
32°C		F ₂	-	-	-	-	-
38°C		F ₂	-	-	-	-	-
43°C		F ₂	-	-	-	-	-
Remarks on application:							

Motor

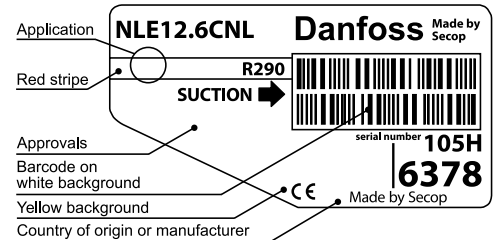
Motor type	CSIR/RSIR/RSCR		
LRA (rated after 4 sec. UL984), HST LST	A	12.5	13.4
Cut in Current, HST LST	A	12.5	16.4
Resistance, main start winding (25°C)	Ω	5.8	9.1

Design

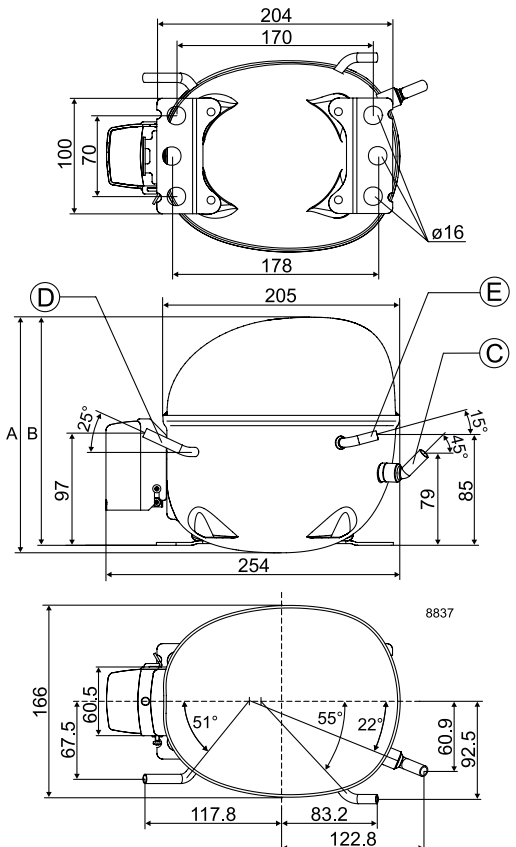
Displacement	cm ³	12.55
Oil quantity (type)	cm ³	320 (polyolester)
Maximum refrigerant charge	g	150
Free gas volume in compressor	cm ³	2360
Weight without electrical equipment	kg	11.6

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		275	359	455	568	610	700	856	1040	1178	1255						
Power cons. in W		241	277	313	348	360	384	421	461	490	505						
Current cons. in A		1.78	1.87	1.98	2.09	2.13	2.21	2.35	2.50	2.62	2.68						
COP in W/W		1.14	1.29	1.45	1.63	1.69	1.82	2.03	2.25	2.41	2.49						

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		253	331	420	524	564	647	792	963	1091	1163						
Power cons. in W		244	282	320	358	371	397	437	481	513	529						
Current cons. in A		1.78	1.89	2.00	2.12	2.17	2.26	2.41	2.58	2.71	2.78						
COP in W/W		1.04	1.17	1.31	1.47	1.52	1.63	1.81	2.00	2.13	2.20						

ASHRAE LBP

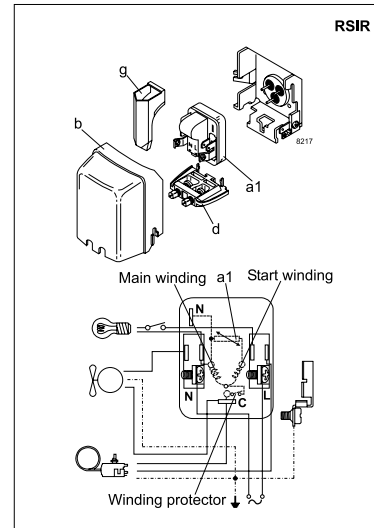
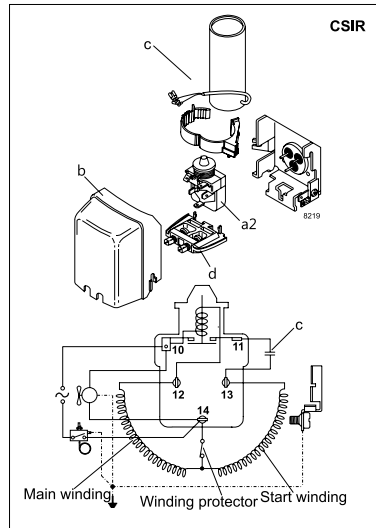
 220V, 50Hz, fan cooling F₂

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		267	355	453	568	611	702	861	1050	1193	1273						
Power cons. in W		238	279	319	361	375	404	450	500	535	554						
Current cons. in A		1.77	1.90	2.04	2.19	2.24	2.36	2.54	2.75	2.90	2.99						
COP in W/W		1.12	1.27	1.42	1.57	1.63	1.74	1.91	2.10	2.23	2.30						

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		239	317	405	507	546	627	769	937	1064	1135						
Power cons. in W		236	276	316	357	372	400	446	495	529	548						
Current cons. in A		1.77	1.90	2.04	2.19	2.24	2.36	2.54	2.75	2.90	2.99						
COP in W/W		1.01	1.15	1.28	1.42	1.47	1.57	1.72	1.89	2.01	2.07						



Accessories for	NLE12.6CNL	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	117U7003
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		271	357	456	571	614	705	862	1046	1184	1260						
Power cons. in W		223	264	302	337	348	371	405	441	467	481						
Current cons. in A		1.66	1.79	1.90	2.02	2.06	2.13	2.26	2.40	2.50	2.55						
COP in W/W		1.21	1.35	1.51	1.69	1.76	1.90	2.13	2.37	2.53	2.62						

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		250	330	421	527	567	651	797	968	1097	1168						
Power cons. in W		226	269	308	346	358	383	420	461	489	504						
Current cons. in A		1.66	1.80	1.93	2.05	2.10	2.18	2.32	2.47	2.59	2.65						
COP in W/W		1.10	1.23	1.37	1.52	1.58	1.70	1.90	2.10	2.24	2.32						

ASHRAE LBP

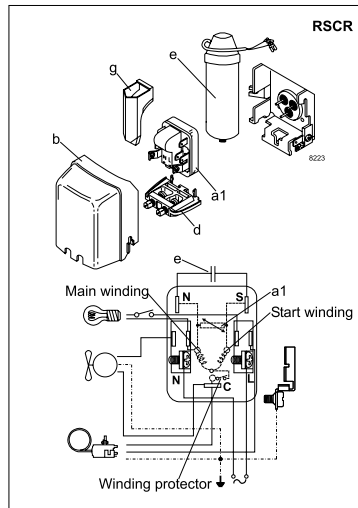
220V, 50Hz, RC 4 µF, ePTC consumption incl., fan cooling F₂

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		264	353	454	570	614	707	867	1056	1199	1279						
Power cons. in W		221	266	308	349	363	390	433	478	510	528						
Current cons. in A		1.66	1.81	1.96	2.12	2.17	2.27	2.44	2.63	2.77	2.84						
COP in W/W		1.19	1.33	1.48	1.63	1.69	1.81	2.00	2.21	2.35	2.42						

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		236	316	406	510	549	631	774	942	1069	1140						
Power cons. in W		219	263	305	345	359	386	428	473	505	522						
Current cons. in A		1.66	1.81	1.96	2.12	2.17	2.27	2.44	2.63	2.77	2.84						
COP in W/W		1.08	1.20	1.33	1.48	1.53	1.63	1.81	1.99	2.12	2.18						



Accessories for	NLE12.6CNL	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.