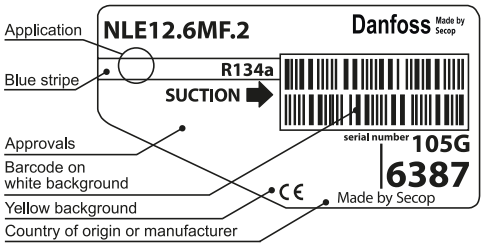
ENGINEERING
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Datasheets

NLE12.6MF.2 Energy-optimized MBP Compressor R134a, 220-240V 50/60Hz

General

Code number	105G6387
Approvals	EN 60335-2-34 w. Annex AA
Compressors on pallet	80



Application

Application		LBP/MBP	
Frequency	Hz	50	60
Evaporating temperature	°C	-35 to 10	-35 to 0
Voltage range	V	187 to 254	198 to 254
Max. condensing temperature continuous (short)	°C	65 (70)	65 (70)
Max. winding temperature continuous (short)	°C	125 (135)	125 (135)

Cooling requirements

Frequency	Hz	50			60		
Application		LBP	MBP	HBP	LBP	MBP	HBP
32°C		F_2	F_2	–	F_2	F_2	–
38°C		F_2	F_2	–	F_2	F_2	–
43°C		F_2	F_2	–	F_2	F_2	–
Remarks on application:							

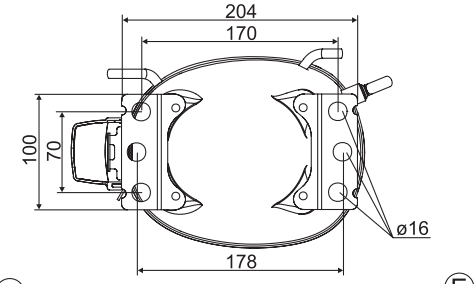
S = Static cooling normally sufficient
O = Oil cooling
F_1 = Fan cooling 1.5 m/s (compressor compartment temperature equal to ambient temperature)
F_2 = Fan cooling 3.0 m/s necessary
SG = Suction gas cooling normally sufficent
– = not applicable in this area

Motor

Motor type		CSIR/RSIR/RSCR	
LRA (rated after 4 sec. UL984), HST | LST	A	13.7	14.4
Cut in Current, HST | LST	A	13.7	19.4
Resistance, main | start winding (25°C)	Ω	4.9	8.9

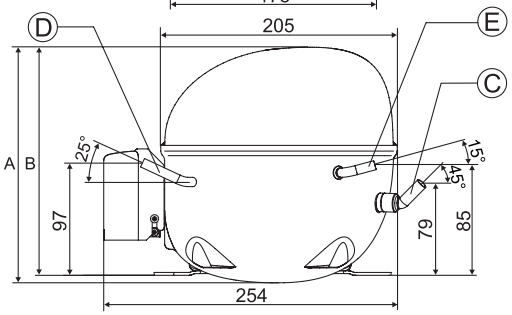
Design

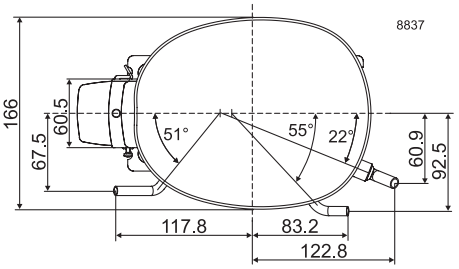
Displacement	cm^3	12.55
Oil quantity (type)	cm^3	320 (polyolester)
Maximum refrigerant charge	g	600
Free gas volume in compressor	cm^3	2360
Weight without electrical equipment	kg	11.5



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:			





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EN 12900 LBP 220V, 50Hz, fan cooling F_2

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			199	254	334	367	440	572	730	848	914	1123	1360	1472	1623		
Power cons. in W			181	205	234	245	268	304	342	368	381	422	461	479	500		
Current cons. in A			1.96	1.97	2.02	2.04	2.09	2.17	2.28	2.35	2.39	2.52	2.65	2.71	2.78		
COP in W/W			1.10	1.24	1.42	1.50	1.65	1.88	2.14	2.31	2.40	2.67	2.95	3.08	3.24		

EN 12900 MBP 220V, 50Hz, fan cooling F_2

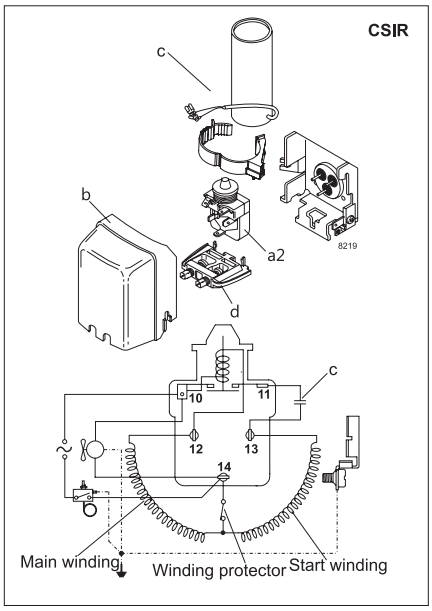
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			193	236	305	335	400	521	668	779	841	1040	1265	1373	1518		
Power cons. in W			184	207	236	246	269	305	345	372	387	429	472	491	515		
Current cons. in A			1.97	1.98	2.02	2.04	2.09	2.18	2.29	2.37	2.42	2.56	2.70	2.77	2.85		
COP in W/W			1.05	1.14	1.30	1.36	1.49	1.71	1.94	2.09	2.18	2.42	2.68	2.79	2.95		

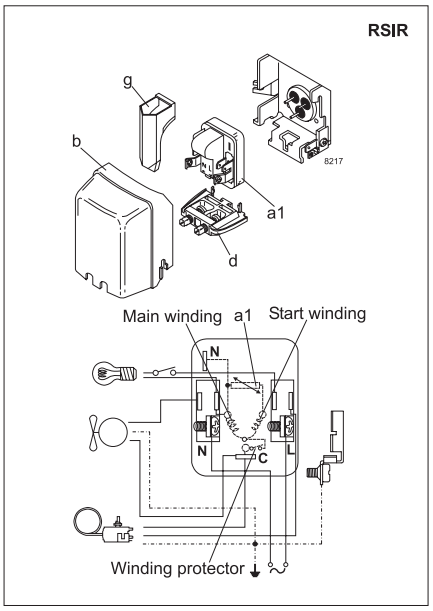
ASHRAE LBP 220V, 50Hz, fan cooling F_2

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			241	268	327	355	420	545	703	826	894	1119	1378	1502	1670		
Power cons. in W			178	200	228	239	262	301	343	372	388	435	483	504	531		
Current cons. in A			1.98	1.99	2.03	2.05	2.10	2.21	2.33	2.43	2.48	2.65	2.83	2.91	3.02		
COP in W/W			1.36	1.34	1.43	1.48	1.60	1.81	2.05	2.22	2.31	2.58	2.85	2.98	3.15		

ASHRAE MBP 220V, 50Hz, fan cooling F_2

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			215	239	292	317	374	486	626	735	796	995	1224	1334	1482		
Power cons. in W			176	198	226	237	260	298	339	368	384	430	477	498	524		
Current cons. in A			1.98	1.99	2.03	2.05	2.10	2.21	2.33	2.43	2.48	2.65	2.83	2.91	3.02		
COP in W/W			1.22	1.21	1.29	1.34	1.44	1.63	1.85	2.00	2.08	2.32	2.57	2.68	2.83		





Accessories for	NLE12.6MF.2	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	117U6005
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 4µF, ePTC consumption incl., fan cooling F_2

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			202	258	339	373	447	581	741	862	928	1141	1381	1495	1648		
Power cons. in W			176	200	228	239	260	295	332	358	371	410	449	465	486		
Current cons. in A			1.90	1.92	1.96	1.98	2.03	2.11	2.21	2.29	2.33	2.45	2.57	2.63	2.70		
COP in W/W			1.15	1.29	1.49	1.56	1.72	1.97	2.23	2.41	2.50	2.78	3.08	3.21	3.39		

EN 12900 MBP 220V, 50Hz, RC 4µF, ePTC consumption incl., fan cooling F_2

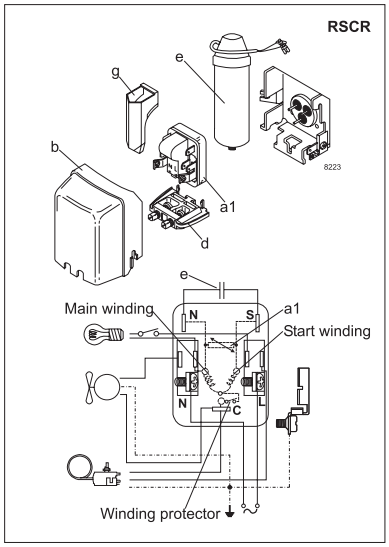
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			196	240	310	340	407	529	679	791	854	1056	1285	1395	1541		
Power cons. in W			179	201	229	240	261	297	335	362	376	417	459	478	501		
Current cons. in A			1.91	1.93	1.97	1.99	2.03	2.12	2.23	2.31	2.35	2.48	2.63	2.69	2.77		
COP in W/W			1.10	1.19	1.35	1.42	1.56	1.78	2.02	2.19	2.27	2.53	2.80	2.92	3.08		

ASHRAE LBP 220V, 50Hz, RC 4µF, ePTC consumption incl., fan cooling F_2

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			245	272	333	361	426	553	714	839	908	1137	1399	1526	1697		
Power cons. in W			173	194	222	233	255	292	333	362	377	423	469	490	516		
Current cons. in A			1.93	1.93	1.97	2.00	2.05	2.15	2.27	2.36	2.41	2.58	2.75	2.83	2.94		
COP in W/W			1.42	1.40	1.50	1.55	1.67	1.89	2.14	2.32	2.41	2.69	2.98	3.11	3.29		

ASHRAE MBP 220V, 50Hz, RC 4µF, ePTC consumption incl., fan cooling F_2

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			219	243	297	322	380	493	636	747	809	1011	1243	1355	1506		
Power cons. in W			171	193	220	230	252	289	330	358	373	418	464	484	510		
Current cons. in A			1.93	1.93	1.97	2.00	2.05	2.15	2.27	2.36	2.41	2.58	2.75	2.83	2.94		
COP in W/W			1.28	1.26	1.35	1.40	1.51	1.70	1.93	2.09	2.17	2.42	2.68	2.80	2.95		



Accessories for	NLE12.6MF.2	Figure	Code number
ePTC starting device	6.3 mm spade connectors	a1	–
	4.8 mm spade connectors		103N0050
Run capacitor 4 µF	4.8 mm spade connectors	e	117-7119
(optional)			
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, 60Hz, fan cooling F_2

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			240	306	403	442	530	689	879	1022	1101	1354					
Power cons. in W			216	245	280	293	319	362	408	439	455	503					
Current cons. in A			2.33	2.36	2.41	2.43	2.49	2.59	2.72	2.81	2.85	3.00					
COP in W/W			1.11	1.25	1.44	1.51	1.66	1.90	2.16	2.33	2.42	2.69					

EN 12900 MBP 220V, 60Hz, fan cooling F_2

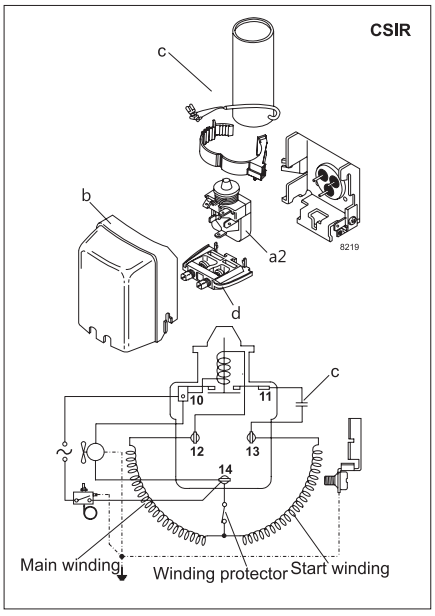
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			233	285	368	403	482	628	805	939	1013	1253					
Power cons. in W			220	247	281	294	321	364	412	444	461	512					
Current cons. in A			2.35	2.36	2.41	2.44	2.50	2.60	2.73	2.83	2.88	3.05					
COP in W/W			1.06	1.15	1.31	1.37	1.50	1.72	1.96	2.11	2.20	2.45					

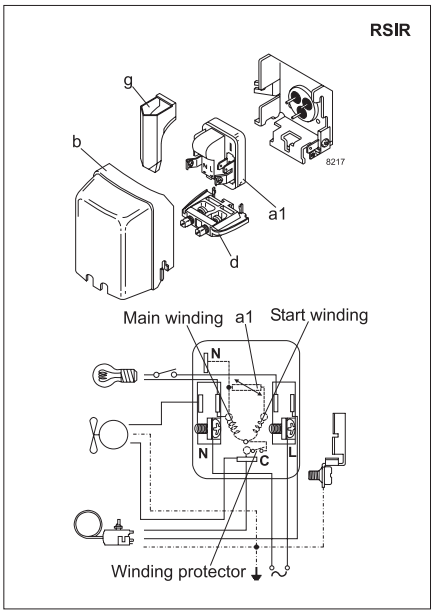
ASHRAE LBP 220V, 60Hz, fan cooling F_2

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			291	323	395	428	506	656	847	995	1078	1348					
Power cons. in W			212	239	273	286	313	359	409	444	463	518					
Current cons. in A			2.37	2.37	2.42	2.45	2.51	2.63	2.78	2.90	2.96	3.16					
COP in W/W			1.37	1.35	1.45	1.50	1.62	1.83	2.07	2.24	2.33	2.60					

ASHRAE MBP 220V, 60Hz, fan cooling F_2

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			259	288	352	382	451	585	754	886	959	1199					
Power cons. in W			210	236	270	283	310	355	405	439	458	513					
Current cons. in A			2.37	2.37	2.42	2.45	2.51	2.63	2.78	2.90	2.96	3.16					
COP in W/W			1.23	1.22	1.30	1.35	1.46	1.65	1.86	2.02	2.10	2.34					





Accessories for	NLE12.6MF.2	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	117U6005
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, 60Hz, RC 4µF, ePTC consumption incl., fan cooling F_2

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			243	310	409	449	539	700	893	1038	1118	1375					
Power cons. in W			210	238	272	285	310	352	397	427	442	489					
Current cons. in A			2.27	2.29	2.34	2.37	2.42	2.52	2.64	2.73	2.78	2.92					
COP in W/W			1.16	1.30	1.50	1.58	1.74	1.99	2.25	2.43	2.53	2.81					

EN 12900 MBP 220V, 60Hz, RC 4µF, ePTC consumption incl., fan cooling F_2

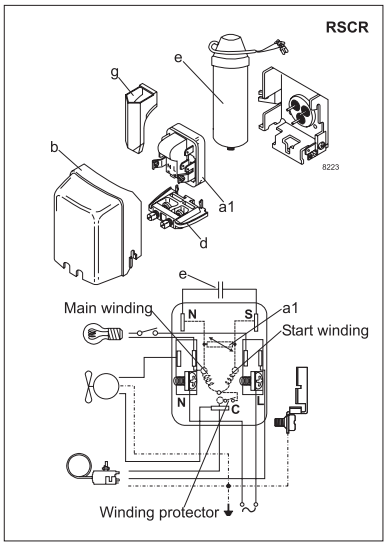
Evap. temp. in °C	-45	-40	-35	-30	-25	-23.3	-20	-15	-10	-6.7	-5	0	5	7.2	10	15	20
Capacity in W			236	289	374	410	490	638	818	954	1029	1273					
Power cons. in W			214	240	273	286	312	354	400	432	448	498					
Current cons. in A			2.28	2.30	2.35	2.37	2.43	2.53	2.66	2.75	2.80	2.96					
COP in W/W			1.11	1.20	1.37	1.43	1.57	1.80	2.04	2.21	2.29	2.56					

ASHRAE LBP 220V, 60Hz, RC 4µF, ePTC consumption incl., fan cooling F_2

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			295	328	401	435	514	667	860	1010	1094	1370					
Power cons. in W			206	232	265	278	304	349	398	432	450	504					
Current cons. in A			2.30	2.31	2.36	2.38	2.44	2.56	2.71	2.82	2.88	3.07					
COP in W/W			1.43	1.41	1.51	1.56	1.69	1.91	2.16	2.34	2.43	2.72					

ASHRAE MBP 220V, 60Hz, RC 4µF, ePTC consumption incl., fan cooling F_2

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	293	357	388	458	594	766	899	974	1218					
Power cons. in W			204	230	262	275	301	345	393	427	445	498					
Current cons. in A			2.30	2.31	2.36	2.38	2.44	2.56	2.71	2.82	2.88	3.07					
COP in W/W			1.29	1.27	1.36	1.41	1.52	1.72	1.95	2.11	2.19	2.44					



Accessories for	NLE12.6MF.2	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

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