

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

### General

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

### Application

Application	LBP		
	Hz	50	60
Frequency	Hz	50	60
Evaporating temperature	°C	-40 to -5	-
Voltage range	V	198 to 254	-
Max. condensing temperature continuous (short)	°C	65 (65)	-
Max. winding temperature continuous (short)	°C	125 (135)	-

### Cooling requirements

Frequency	Hz	50			60		
		LBP	MBP	HBP	LBP	MBP	HBP
32°C		F <sub>2</sub>	-	-	-	-	-
38°C		F <sub>2</sub>	-	-	-	-	-
43°C		F <sub>2</sub>	-	-	-	-	-
Remarks on application:							

### Motor

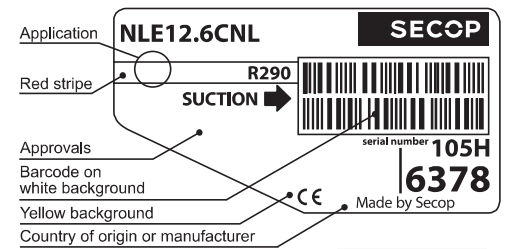
Motor type	CSIR/RSIR/RSCR		
LRA (rated after 4 sec. UL984), HST   LST	A	12.5	13.4
Cut in Current, HST   LST	A	12.5	16.4
Resistance, main   start winding (25°C)	Ω	5.8	9.1

### Design

Displacement	cm <sup>3</sup>	12.55
Oil quantity (type)	cm <sup>3</sup>	300 (polyolester)
Maximum refrigerant charge	g	150
Free gas volume in compressor	cm <sup>3</sup>	2360
Weight without electrical equipment	kg	11.6

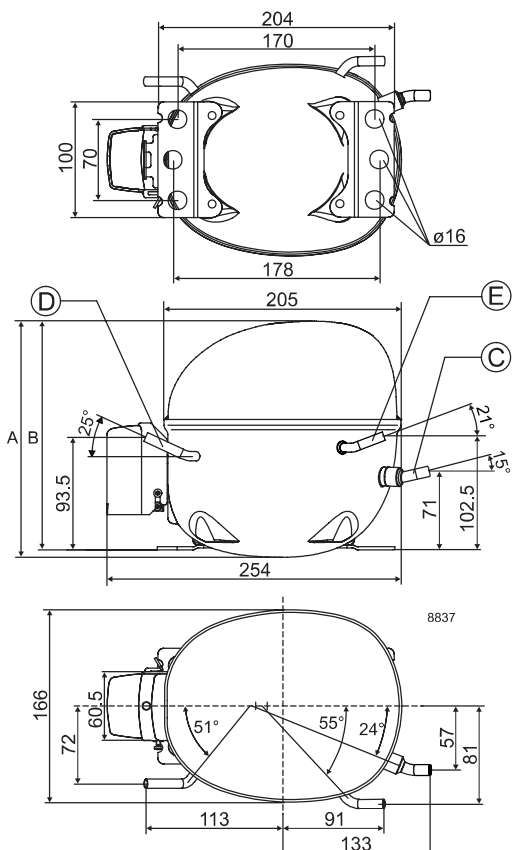
### Dimensions

Height	mm	A	203
		B	197
		B1	-
		B2	-
Suction connector	location/I.D. mm   angle	C	8.2   15°
	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   21°
	material   comment		Copper   Rubber plug
Oil cooler connector	location/I.D. mm   angle	F	-
	material   comment		-
Connector tolerance	I.D. mm		±0.09
Remarks:			



Yellow warning label

- S = Static cooling normally sufficient
- O = Oil cooling
- F<sub>1</sub> = Fan cooling 1.5 m/s  
(compressor compartment temperature equal to ambient temperature)
- F<sub>2</sub> = 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 F<sub>2</sub>

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 F<sub>2</sub>

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**

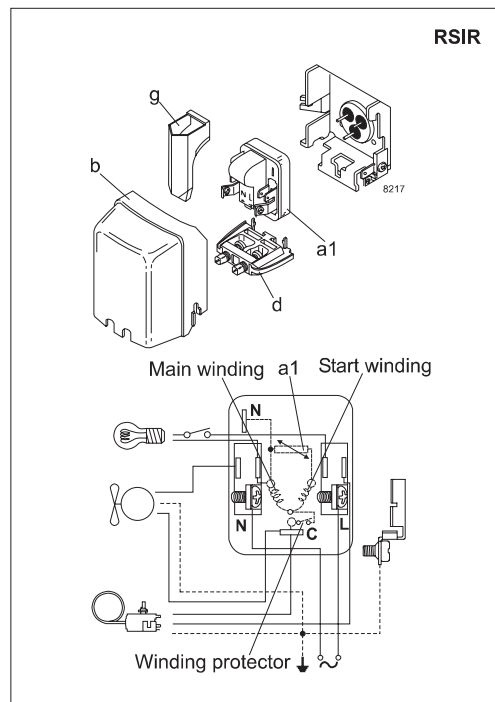
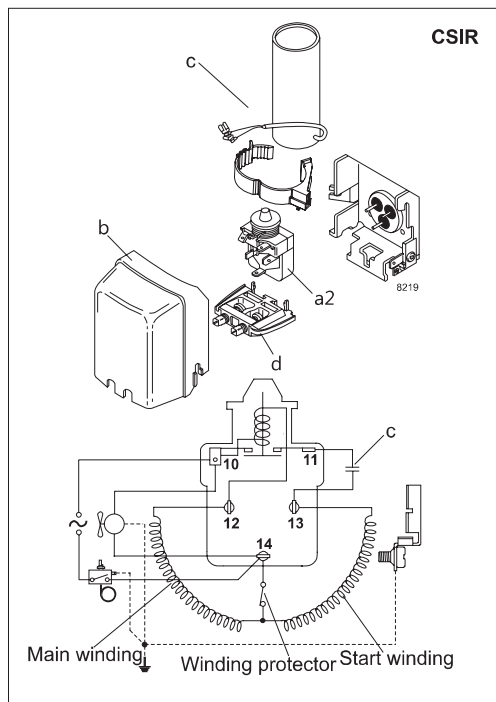
220V, 50Hz, fan cooling F<sub>2</sub>

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 F<sub>2</sub>

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 F<sub>2</sub>

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 F<sub>2</sub>

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**

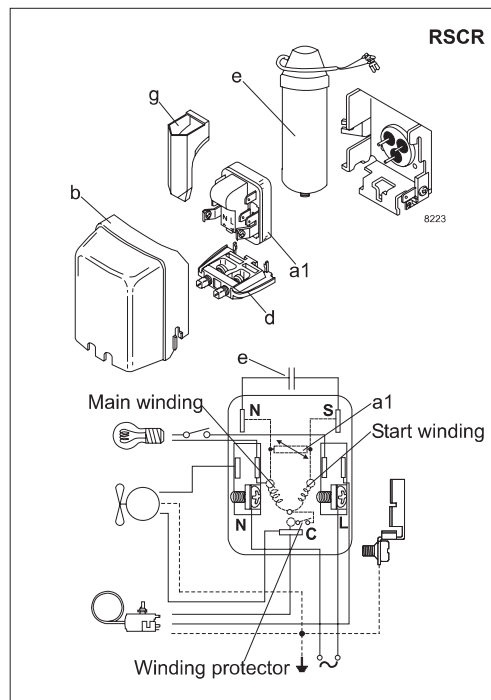
 220V, 50Hz, RC 4 µF, ePTC consumption incl., fan cooling F<sub>2</sub>

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 F<sub>2</sub>

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

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