Technical Data Compressor

SECOP

Model

Designation	NLE13LNDX	220-240V/50Hz 1~	Sales code:	105H7311

Compressor design

Oil type	Polyolester	Refrigerant(s)	**R290**
Oil viscosity	32cSt	Displacement	12,6cm³ / 0,77cu.in
Oil quantity	298cm³ / 10,1fl.oz	Compressors on pallet	64
Refr. charge - tech. limit	300g / 10,6oz		
Free gas volume comp.	2360cm³ / 79,8fl.oz		
Weight	11,8kg / 26lbs		
Motor protection	external		
Winding resistance main	8,67Ω (at 25°C)		
Winding resistance aux	15,1Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		

General - Configurations with NLE13LNDX

	Conf. 1
Motor configuration	CSCR
Power supply (nominal)	220-240V/50Hz
Number of phases	1
Voltage range	198-254V
Approvals	VDE
Starting torque	HST
Note	Starter kit(relay), cover and cord relief are included and pre-assembled.

Applications with NLE13LNDX

	Conf. 1
Refrigerant	R290
Application	LBP
System cooling	fan 3m/s
Hot gas defrost	OK
Long interval pull down	OK

Electrical data - Configurations with NLE13LNDX

	Conf. 1
Starting device type	relay
Run capacitor	10µF
Start capacitor	80µF
LRA (locked rotor amps / 4s/ $U_{(N)}$)	15,1A
RLA (rated load amps / 1s/ $U_{(N)}$)	1,95A
Cut in current ($U_{(N)}$)	

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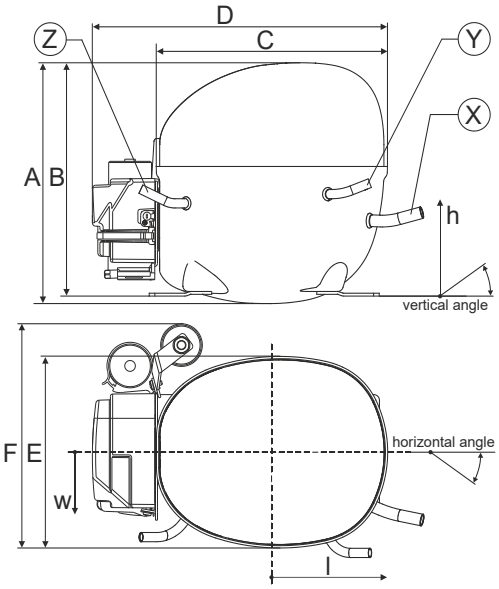
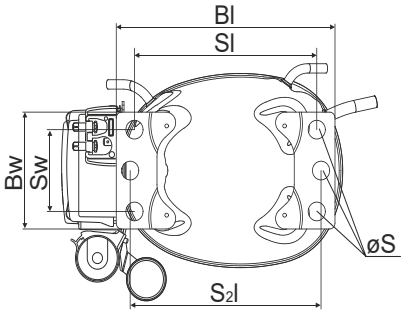
Compressor dimensions

Housing	A Height	209mm / 8,23in
	B Height	203mm / 7,99in
	C Length shell	205mm / 8,07in
	D Length w. cover	262mm / 10,31in
	E Width	166mm / 6,54in



Connectors		**Suction X**	**Discharge Y**	**Process Z**
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside)	[in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	11°	0°	0°
Vertical angle	±2°	15°	21°	25°
Position l/h/w	[mm]	140/72/59	94/98/87	-109/93/74
	[in]	5,5/2,8/2,3	3,7/3,9/3,4	-4,3/3,7/2,9
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

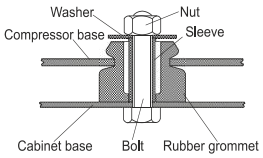
Compressor fixation



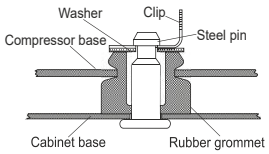
Baseplate	[mm]	[inch]
Bl	204	8.03
Bw	100	3.94

Small holes	[mm]	[inch]
Sl	170	6.7
Sw	70	2.76
S2l	178	7
øS	ø 16	ø 0.63

Bolt joint



Snap-on



Mounting accessories	one comp.	multi pack
Bolt joint | M6 | ø16mm	118-1917	118-1918
Bolt joint | ø1/4" | ø16mm	118-1946	
Snap-on | ø7,3 | ø16mm	118-1947	118-1919

Application notes

Provision for PE Grounding is located at the PE Stamp on the compressor

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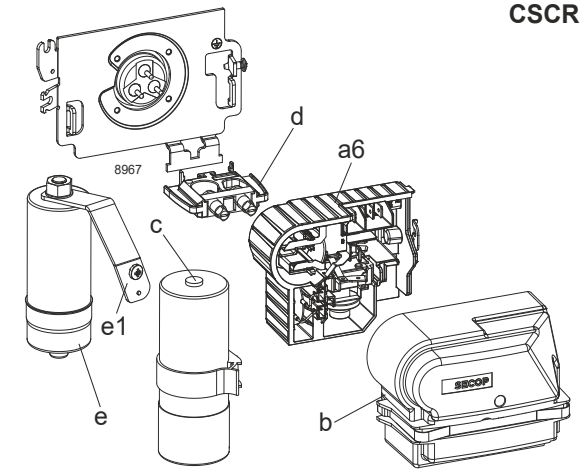
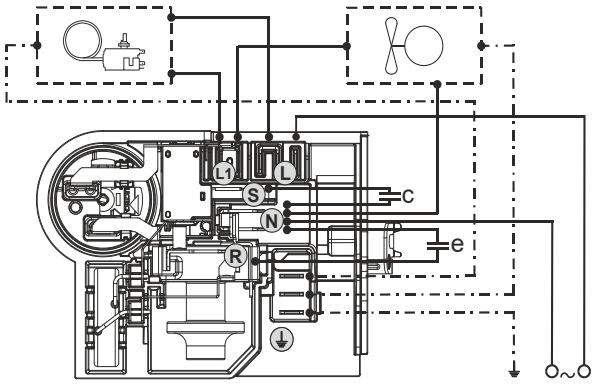
Starting torque	HST
Approvals	VDE

Electrical accessories / wiring diagram

CSCR





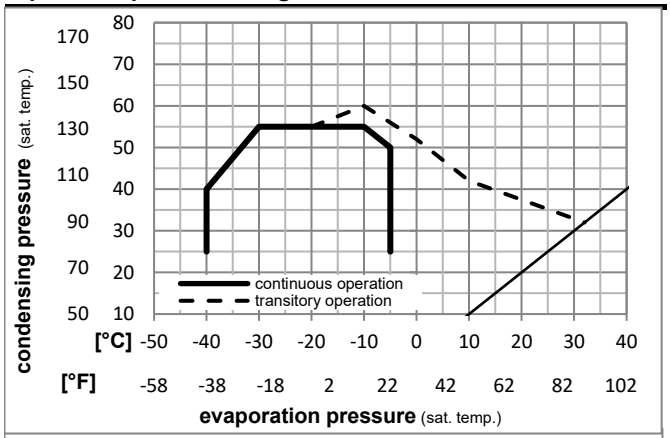
Components (Starter kit (a6)+cover (b) +cord relief (d): pre assembled)

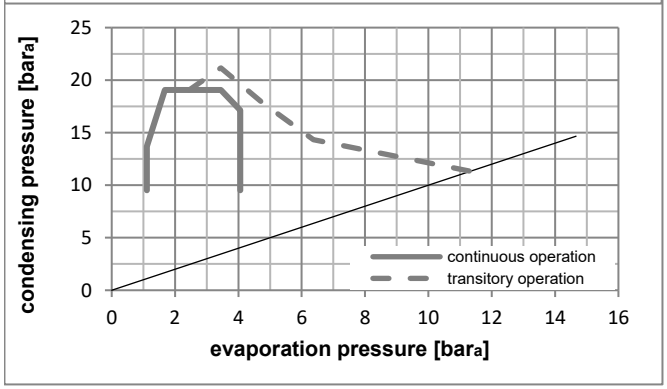
a6	NL starter kit	117U8200
c	start capacitor (80µF)	117U5353
e	run cap (10µF, 6.3mm,c.length 280mm)	117-7166
b	cover terminal board + clamp	117U1038
e1	retaining clamp	117-0314
	screw M4x8mm	117-0301
d	cord relief	103N1007

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

Operation pressure range





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Optimization + standard conditions R290, 220V/50Hz, CSCR, fan 3m/s, VDE

	Evaporating pressure (saturation temperature) pe	Condensing pressure (saturation temperature) pc	Return gas temp. RGT	Liquid temp. Tliq	Cooling capacity [W]	Cooling capacity [Btu/h]	Cooling capacity [kcal/h]	COP [W/W]	EER [Btu/Wh]	EER [kcal/Wh]	Power consumption P1 [W]	Current consumption I [A]	Ref. mass flow ṁ [kg/h]	
[°C]	-23	54	32	32	642,2	2193	552,7	1,68	5,75	1,45	381,3	2,18	6,50	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	483,0	1649	415,7	1,31	4,48	1,13	368,1	2,13	6,01	cecomaf LBP
[°F]	-13	131	90	131										
[°C]	-35	40	20	40	359,2	1227	309,1	1,36	4,65	1,17	264,1	1,75	4,10	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-23	49	4,4	49	517,1	1766	445,0	1,41	4,81	1,21	367,1	2,12	7,15	ARI540 LBP
[°F]	-10	120	40	120										
[°C]	-23	41	32	32	677,7	2314	583,2	1,97	6,73	1,70	343,9	2,04	6,86	AHAM LBP
[°F]	-10	105	90	90										
[°C]	-35	45	32	45	345,4	1180	297,3	1,27	4,35	1,10	271,3	1,77	3,87	opt
[°F]	-31	113	90	113										

Performance tables R290, 220V/50Hz, CSCR, fan 3m/s, VDE

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-40	-40	262,5	896	225,9	1,11	3,79	0,95	236,7	1,64	2,93
cond. pressure	-35	-31	345,4	1180	297,3	1,27	4,35	1,10	271,3	1,77	3,87
pc= 45/113	-30	-22	443,1	1513	381,3	1,44	4,92	1,24	307,4	1,91	4,98
return gas temp.	-25	-13	556,8	1902	479,2	1,62	5,52	1,39	344,3	2,04	6,28
RGT= 32/90	-20	-4	688,2	2350	592,3	1,80	6,16	1,55	381,5	2,18	7,79
liquid temp	-15	5	838,6	2864	721,7	2,01	6,85	1,73	418,1	2,31	9,54
Tliq= 45/113	-5	23	1202,5	4107	1034,9	2,47	8,43	2,12	487,2	2,59	13,84
[°C / °F]	-40	-40	218,7	747	188,2	0,90	3,06	0,77	244,0	1,67	2,70
cond. pressure	-35	-31	293,5	1002	252,6	1,04	3,54	0,89	283,3	1,82	3,63
pc= 55/131	-30	-22	381,1	1301	327,9	1,17	4,01	1,01	324,9	1,97	4,73
return gas temp	-25	-13	483,0	1649	415,7	1,31	4,48	1,13	368,1	2,13	6,01
RGT= 32/90	-20	-4	600,7	2051	516,9	1,46	4,98	1,25	412,3	2,29	7,51
liquid temp	-15	5	735,6	2512	633,0	1,61	5,50	1,39	456,7	2,47	9,25
Tliq= 55/131	-5	23	1062,9	3630	914,8	1,95	6,68	1,68	543,8	2,82	13,54