

Model

Designation	NLX13KK.1	220-240V/50Hz 1~	Sales code:	105H6304
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Compressor design

Oil type	Mineral	Refrigerant(s)	R600a
Oil viscosity	9,6cSt	Displacement	13,25cm ³ / 0,81cu.in
Oil quantity	265cm ³ / 9fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	150g / 5,3oz		
Free gas volume comp.	2360cm ³ / 79,8fl.oz		
Weight	10,8kg / 23,8lbs		
Motor protection	1# internal		
Winding resistance main	18Ω (at 25°C)		
Winding resistance aux	28Ω (at 25°C)		
Max. winding temp.	95°C / 203°F		
Max. discharge temp.	125°C / 257°F		



General - Configurations with NLX13KK.1

	Conf. 1
Motor configuration	eRSCR
Power supply (nominal)	220-240V/50Hz
Number of phases	1
Voltage range	198-254V
Approvals	VDE
Starting torque	LST
Note	- / -

Applications with NLX13KK.1

	Conf. 1
Refrigerant	R600a
Application	LBP
System cooling	static
Hot gas defrost	-/-
Long interval pull down	-/-

Electrical data - Configurations with NLX13KK.1

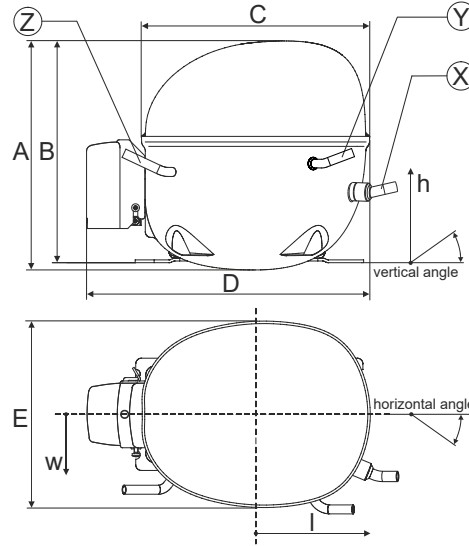
	Conf. 1
Starting device type	e-PTC
Run capacitor	4μF
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	4,5A
RLA (rated load amps / 1s/ U(N))	0,8A
Cut in current (U(N))	8A

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Compressor dimensions

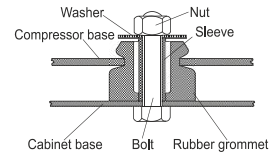
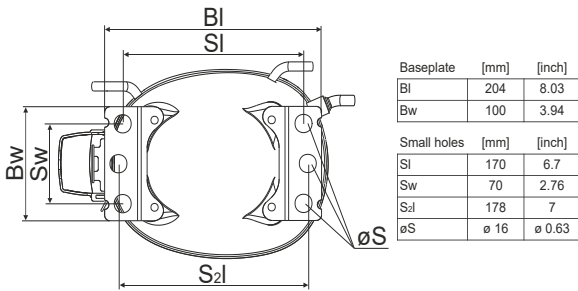
Housing	A Height	203mm / 7,99in
	B Height	197mm / 7,76in
	C Length shell	205mm / 8,07in
	D Length w. cover	254mm / 10in
	E Width	166mm / 6,54in



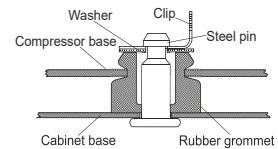
Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 6,11-6,29	øi 5,12-5,22	øi 6,11-6,29
(i:inside, o:outside)	[in]	øi 0,24-0,25	øi 0,2-0,21	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0°
Vertical angle	±2°	15°	21°	155°
Position l/h/w	[mm]	133/71/57	91/103/81	-107/94/72
	[in]	5,2/2,8/2,2	3,6/4/3,2	-4,2/3,7/2,8
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

Compressor fixation

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

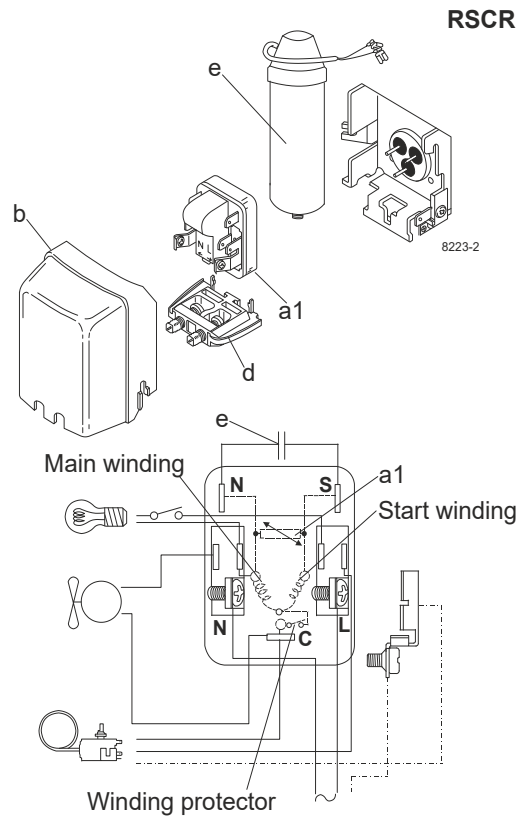
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Configuration

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 Refrigerant R600a
 Application LBP
 Voltage range 198-254V
 Starting torque LST
 Approvals VDE

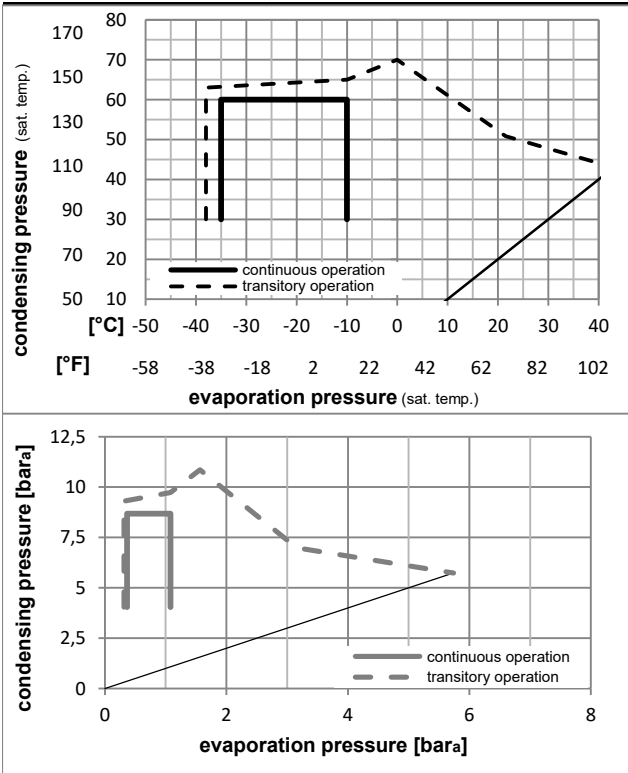
Electrical accessories / wiring diagram



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: static

Operation pressure range



Components

a1	e-PTC starter (220V, 250hm, 4.8mm)	103N0050
e	run capacitor (4μF, 4.8mm)	117-7119
b	plastic cover	103N2010
d	cord relief bracket for run capacitor	103N1010
	screw M4x8mm	117-0301

Alternative components

b	plastic cover	103N2011
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Optimization + standard conditions

R600a, 220V/50Hz, eRSCR, static, VDE

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	[W]	[A]	[kg/h]	ASHRAE LBP					
	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]		ASHRAE LBP				
	-23	54	32	32	222,9	761	191,9	1,75	5,96	1,50	127,7	0,64	2,39	127,7	0,64	2,39			ASHRAE LBP			
	[°F]	[°F]	[°F]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	ASHRAE LBP					
	-10	130	90	90	222,9	761	191,9	1,75	5,96	1,50	127,7	0,64	2,39	127,7	0,64	2,39	ASHRAE LBP					
	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	ASHRAE LBP					
	-25	55	32	55	167,0	571	143,8	1,37	4,68	1,18	122,0	0,62	2,18	122,0	0,62	2,18	cecomaf LBP					
	[°F]	[°F]	[°F]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	cecomaf LBP					
	-13	131	90	131	167,0	571	143,8	1,37	4,68	1,18	122,0	0,62	2,18	122,0	0,62	2,18	cecomaf LBP					
	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	cecomaf LBP					
	-35	40	20	40	118,0	403	101,5	1,31	4,46	1,12	90,3	0,47	1,44	90,3	0,47	1,44	EN12900 LBP					
	[°F]	[°F]	[°F]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	EN12900 LBP					
	-31	104	68	104	118,0	403	101,5	1,31	4,46	1,12	90,3	0,47	1,44	90,3	0,47	1,44	EN12900 LBP					
	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	EN12900 LBP					
	-23	49	4,4	49	182,9	624	157,4	1,46	5,00	1,26	124,8	0,63	2,67	124,8	0,63	2,67	ARI540 LBP					
	[°F]	[°F]	[°F]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	ARI540 LBP					
	-10	120	40	120	182,9	624	157,4	1,46	5,00	1,26	124,8	0,63	2,67	124,8	0,63	2,67	ARI540 LBP					
	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	ARI540 LBP					
	-23	41	32	32	243,4	831	209,5	2,05	6,99	1,76	118,8	0,61	2,61	118,8	0,61	2,61	AHAM LBP					
	[°F]	[°F]	[°F]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	AHAM LBP					
	-10	105	90	90	243,4	831	209,5	2,05	6,99	1,76	118,8	0,61	2,61	118,8	0,61	2,61	AHAM LBP					
	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	AHAM LBP					
	-35	45	32	45	111,8	382	96,2	1,24	4,23	1,07	90,3	0,46	1,33	90,3	0,46	1,33	opt					
	[°F]	[°F]	[°F]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	opt					
	-31	113	90	113	111,8	382	96,2	1,24	4,23	1,07	90,3	0,46	1,33	90,3	0,46	1,33	opt					
	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	opt					

Performance tables

R600a, 220V/50Hz, eRSCR, static, 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]	-35	-31	111,8	382	96,2	1,24	4,23	1,07	90,3	0,46	1,33
cond. pressure	-30	-22	150,2	513	129,2	1,44	4,93	1,24	103,9	0,53	1,79
pc= 45/113	-25	-13	196,5	671	169,1	1,67	5,71	1,44	117,6	0,60	2,34
return gas temp.	-23	-10	214,3	732	184,4	1,75	5,98	1,51	122,4	0,62	2,55
RGT= 32/90	-20	-4	252,0	861	216,8	1,91	6,51	1,64	132,1	0,67	3,00
liquid temp	-15	5	317,7	1085	273,4	2,14	7,31	1,84	148,5	0,75	3,80
Tliq= 45/113	-10	14	394,9	1349	339,9	2,36	8,04	2,03	167,7	0,83	4,73
[°C / °F]	-35	-31	90,8	310	78,2	1,05	3,60	0,91	86,1	0,46	1,18
cond. pressure	-30	-22	125,5	428	108,0	1,20	4,11	1,03	104,4	0,53	1,63
pc= 55/131	-25	-13	167,0	571	143,8	1,37	4,68	1,18	122,0	0,62	2,18
return gas temp	-23	-10	183,0	625	157,5	1,43	4,88	1,23	128,1	0,65	2,39
RGT= 32/90	-20	-4	216,8	740	186,6	1,55	5,29	1,33	140,0	0,70	2,83
liquid temp	-15	5	275,8	942	237,4	1,73	5,91	1,49	159,4	0,80	3,61
Tliq= 55/131	-10	14	345,3	1179	297,2	1,91	6,52	1,64	181,0	0,89	4,53