

Model

Designation	NL10FT	220-240V/60Hz 1~ 220-240V/50Hz 1~	Sales code:	105G6140
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	32cSt	Displacement	10,09cm ³ / 0,62cu.in
Oil quantity	320cm ³ / 10,8fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	400g / 14,1oz		
Free gas volume comp.	2360cm ³ / 79,8fl.oz		
Weight	10,5kg / 23,1lbs		
Motor protection	1# internal		
Winding resistance main	8,2Ω (at 25°C)		
Winding resistance aux	14,7Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	120°C / 248°F		



General - Configurations with NL10FT

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motorconfiguration	CSIR	RSIR	CSIR	RSIR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz	208-230V/60Hz	208-230V/60Hz
Number of phases	1	1	1	1
Voltage range	187-254V	187-254V	187-253V	187-253V
Approvals	VDE, CCC, CB	VDE, CCC, CB	VDE, CCC, CB	VDE, CCC, CB
Starting torque	HST	LST	HST	LST
Note	- / -			

Applications with NL10FT

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Refrigerant	R134a	R134a	R134a	R134a
Application	LBP	LBP	LBP	LBP
System cooling	static	static	static	static
Hot gas defrost	- / -	- / -	- / -	- / -
Long interval pull down	- / -	- / -	- / -	- / -

Electrical data - Configurations with NL10FT

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	relay	PTC	relay	PTC
Run capacitor	0μF	0μF	0μF	0μF
Start capacitor	80μF	0μF	80μF	0μF
LRA (locked rotor amps / 4s)	10,4A	9,2A	10A	9A
RLA (rated load amps / 1s)	1,8A	1,8A	1,6A	1,6A
Cut in current	10,4A	13,6A	10A	13A
IP class	21	21	21	21

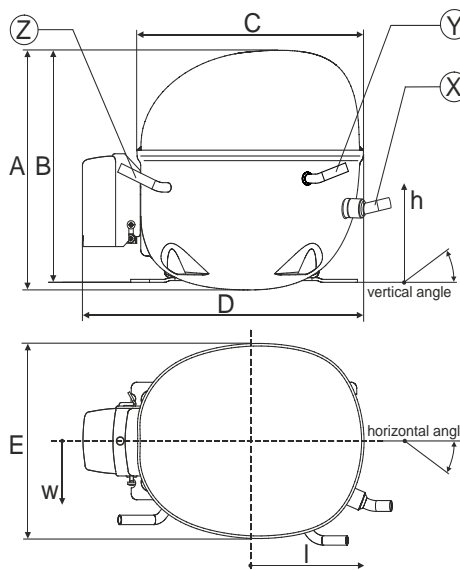
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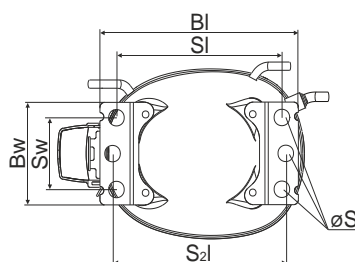
Compressor dimensions

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 8,11-8,29	øi 6,41-6,59	øi 6,41-6,59
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,25-0,26	øi 0,25-0,26
Material		copper	copper	copper
Horizontal angle	±2°	0°	0°	0
Vertical angle	±2°	15°	35°	155°
Position l/h/w	[mm]	126/76/78	133/103/54	-107/94/72
	[in]	5/3/3,1	5,2/4/2,1	-4,2/3,7/2,8
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

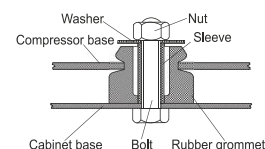


Compressor fixation

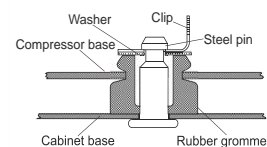


Baseplate	[mm]	[inch]
BI	204	8.03
Bw	100	3.94
Small holes		
SI	170	6.7
Sw	70	2.76
S2l	178	7
øS	ø 16	ø 0.63

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

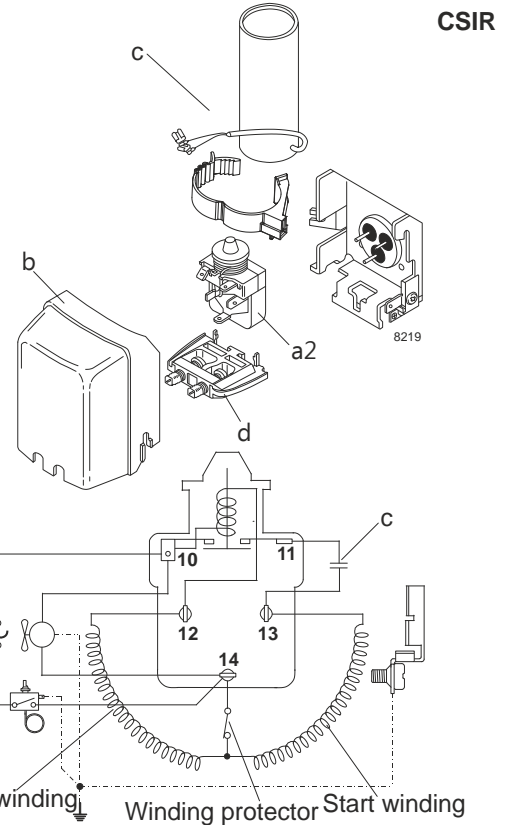
Model

Designation	NL10FT	220-240V/50Hz	Conf. 1	Sales code:	105G6140
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE
	CCC
	CB

Electrical accessories / wiring diagram

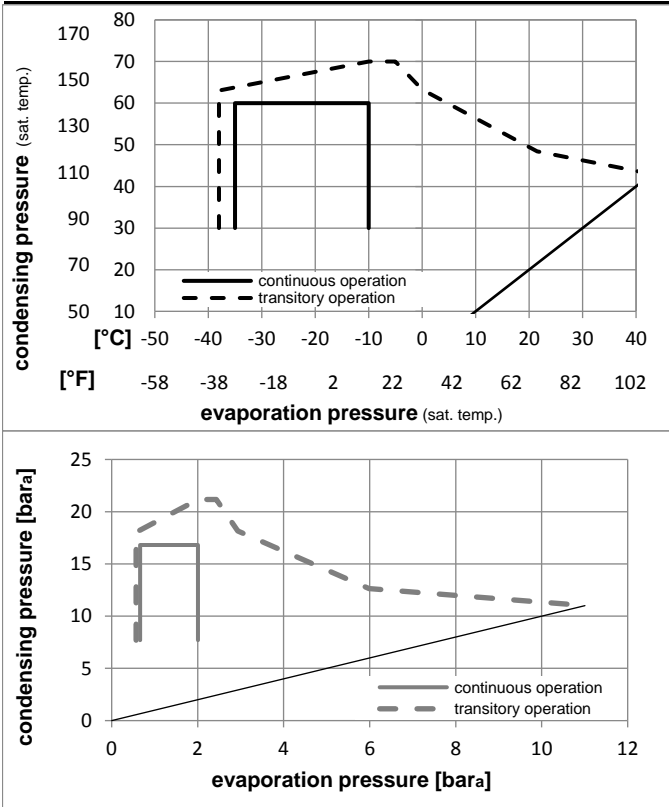


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	fan 1,5m/s	n/a	n/a
43°C / 110°F	fan 3m/s	n/a	n/a

Operation pressure range



Components:

a2	assy. relay	117U6002
c	start capacitor (80µF)	117U5015
b	plastic cover	103N2010
d	cord relief	103N1010

Alternative components:

b	plastic cover	103N2011
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Model

Designation	NL10FT	220-240V/50Hz	Conf. 1	Sales code:	105G6140
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Optimization + standard conditions

220-240V/50Hz 1~, CSIR, static, VDE, CCC, CB

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P1	I	Ref. mass flow		
	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23,3	54,4	32,2	32,2	283,8	969	244,2	1,25	4,27	1,08	227,0	1,54	5,51	ASHRAE LBP
	[°F]													
	-10	130	90	90										
	-25	55	32	55	210,3	718	181,0	0,98	3,34	0,84	215,1	1,50	5,03	cecomaf LBP
	[°F]													
	-13	131	89,6	131										
	-35	40	20	40	152,2	520	131,0	0,95	3,26	0,82	159,4	1,36	3,34	EN12900 LBP
	[°F]													
	-31	104	68	104										
	-23,3	48,9	4,44	48,9	230,8	788	198,6	1,01	3,46	0,87	227,9	1,55	6,10	ARI540 LBP
	[°F]													
	-10	120	40	120										
	-23,3	40,6	32,2	32,2	313,4	1070	269,7	1,44	4,91	1,24	217,9	1,52	6,08	AHAM LBP
	[°F]													
	-10	105	90	90										
	-35	45	32	45	141,9	484	122,1	0,88	3,00	0,76	161,5	1,36	3,06	opt
	[°F]													
	-31	113	89,6	113										

Performance tables

220-240V/50Hz 1~, CSIR, static, VDE, CCC, CB

	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	141,9	484	122,1	0,88	3,00	0,76	161,5	1,36	3,06
cond. pressure	-30	-22	189,6	648	163,2	1,03	3,51	0,88	184,6	1,42	4,10
pc= 45/113	-25	-13	248,7	849	214,0	1,16	3,98	1,00	213,5	1,50	5,39
return gas temp.	-23,3	-10	271,6	928	233,7	1,21	4,14	1,04	224,2	1,54	5,89
RGT= 32/90	-20	-4	320,6	1095	275,9	1,31	4,46	1,12	245,4	1,61	6,97
liquid temp	-15	5	407,2	1391	350,4	1,47	5,01	1,26	277,5	1,72	8,88
Tliq= 45/113	-10	14	510,1	1742	439,0	1,66	5,68	1,43	306,8	1,83	11,16
[°C / °F]	-35	-31	114,8	392	98,8	0,72	2,47	0,62	158,9	1,35	2,73
cond. pressure	-30	-22	157,7	538	135,7	0,86	2,93	0,74	183,9	1,41	3,76
pc= 55/131	-25	-13	210,3	718	181,0	0,98	3,34	0,84	215,1	1,50	5,03
return gas temp	-23,3	-10	230,8	788	198,6	1,02	3,48	0,88	226,5	1,54	5,52
RGT= 32/90	-20	-4	274,5	937	236,2	1,10	3,76	0,95	249,4	1,62	6,58
liquid temp	-15	5	351,7	1201	302,7	1,24	4,23	1,07	284,2	1,74	8,47
Tliq= 55/131	-10	14	443,7	1515	381,9	1,40	4,79	1,21	316,4	1,87	10,73

Model

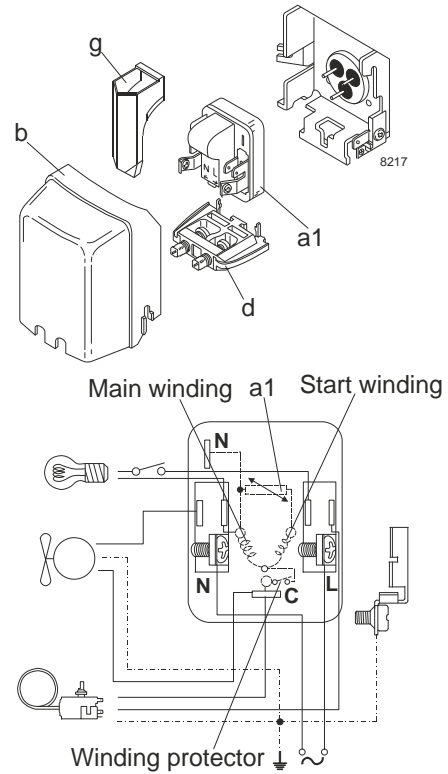
Designation	NL10FT	220-240V/50Hz	Conf. 2	Sales code:	105G6140
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Configuration

Motorconfiguration	RSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	187-254V
Starting torque	LST
Approvals	VDE
	CCC
	CB

Electrical accessories / wiring diagram

RSIR

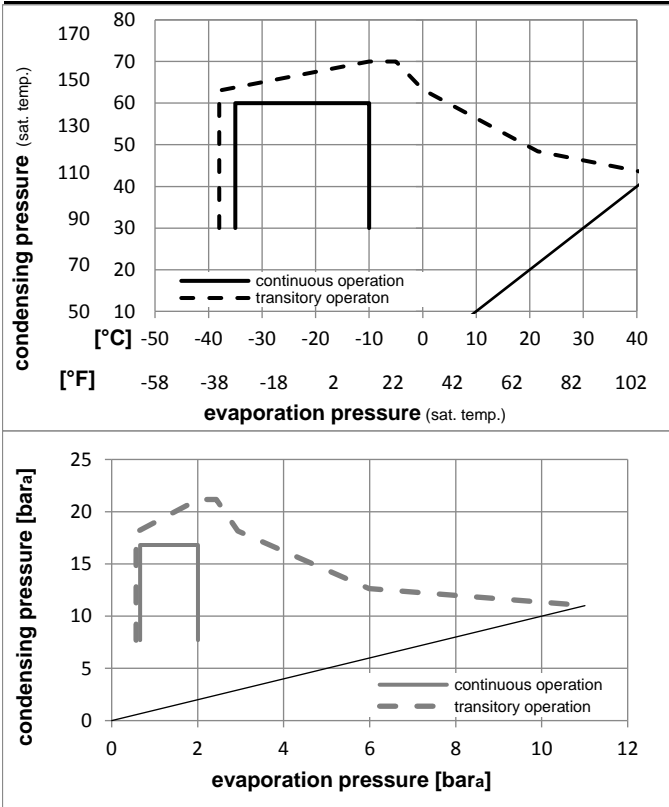


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	fan 1,5m/s	n/a	n/a
43°C / 110°F	fan 3m/s	n/a	n/a

Operation pressure range



Components:

a1	PTC starter (220V, 250hm, 4.8mm)	103N0018
b	plastic cover	103N2010
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Alternative components:

a1	PTC starter (220V, 250hm, 6.3mm)	103N0011
b	plastic cover	103N2011
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Model

Designation	NL10FT	220-240V/50Hz	Conf. 2	Sales code:	105G6140
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Optimization + standard conditions

220-240V/50Hz 1~, RSIR, static, VDE, CCC, CB

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P1	I	Ref. mass flow		
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23,3	54,4	32,2	32,2	283,8	969	244,2	1,25	4,27	1,08	227,0	1,54	5,51	ASHRAE LBP
	-10	130	90	90										
	-25	55	32	55	210,3	718	181,0	0,98	3,34	0,84	215,1	1,50	5,03	cecomaf LBP
	-13	131	89,6	131										
	-35	40	20	40	152,2	520	131,0	0,95	3,26	0,82	159,4	1,36	3,34	EN12900 LBP
	-31	104	68	104										
	-23,3	48,9	4,44	48,9	230,8	788	198,6	1,01	3,46	0,87	227,9	1,55	6,10	ARI540 LBP
	-10	120	40	120										
	-23,3	40,6	32,2	32,2	313,4	1070	269,7	1,44	4,91	1,24	217,9	1,52	6,08	AHAM LBP
	-10	105	90	90										
	-35	45	32	45	141,9	484	122,1	0,88	3,00	0,76	161,5	1,36	3,06	opt
	-31	113	89,6	113										

Performance tables

220-240V/50Hz 1~, RSIR, static, VDE, CCC, CB

	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	141,9	484	122,1	0,88	3,00	0,76	161,5	1,36	3,06
cond. pressure	-30	-22	189,6	648	163,2	1,03	3,51	0,88	184,6	1,42	4,10
pc= 45/113	-25	-13	248,7	849	214,0	1,16	3,98	1,00	213,5	1,50	5,39
return gas temp.	-23,3	-10	271,6	928	233,7	1,21	4,14	1,04	224,2	1,54	5,89
RGT= 32/90	-20	-4	320,6	1095	275,9	1,31	4,46	1,12	245,4	1,61	6,97
liquid temp	-15	5	407,2	1391	350,4	1,47	5,01	1,26	277,5	1,72	8,88
Tliq= 45/113	-10	14	510,1	1742	439,0	1,66	5,68	1,43	306,8	1,83	11,16
[°C / °F]	-35	-31	114,8	392	98,8	0,72	2,47	0,62	158,9	1,35	2,73
cond. pressure	-30	-22	157,7	538	135,7	0,86	2,93	0,74	183,9	1,41	3,76
pc= 55/131	-25	-13	210,3	718	181,0	0,98	3,34	0,84	215,1	1,50	5,03
return gas temp	-23,3	-10	230,8	788	198,6	1,02	3,48	0,88	226,5	1,54	5,52
RGT= 32/90	-20	-4	274,5	937	236,2	1,10	3,76	0,95	249,4	1,62	6,58
liquid temp	-15	5	351,7	1201	302,7	1,24	4,23	1,07	284,2	1,74	8,47
Tliq= 55/131	-10	14	443,7	1515	381,9	1,40	4,79	1,21	316,4	1,87	10,73

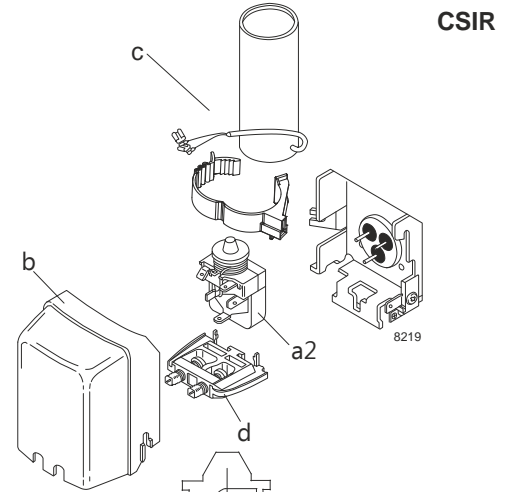
Model

Designation	NL10FT	208-230V/60Hz	Conf. 3	Sales code:	105G6140
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	187-253V
Starting torque	HST
Approvals	VDE
	CCC
	CB

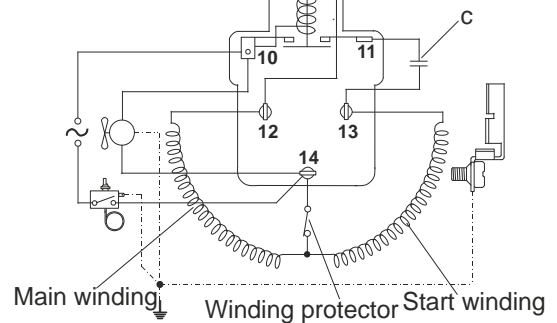
Electrical accessories / wiring diagram



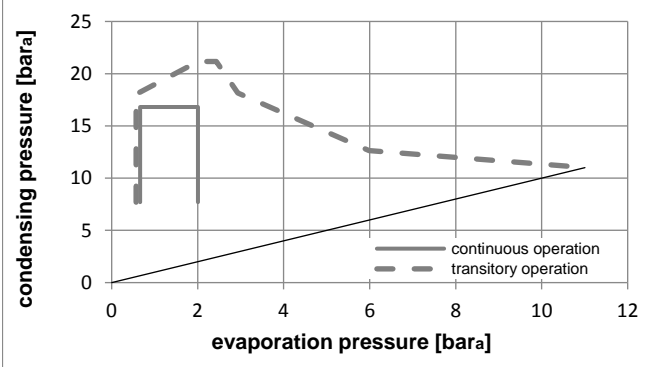
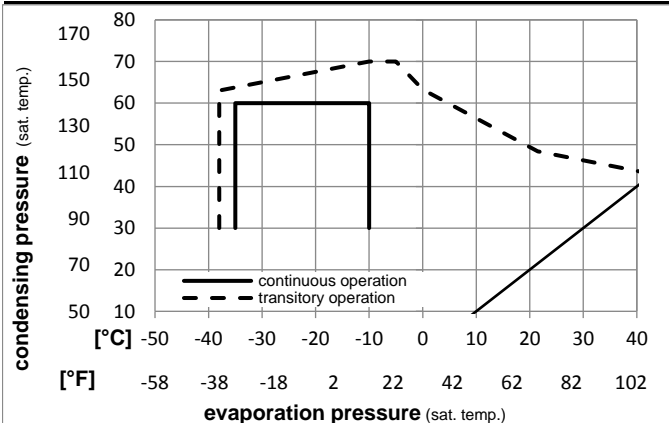
Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	fan 1,5m/s	n/a	n/a
43°C / 110°F	fan 3m/s	n/a	n/a



Operation pressure range



Components:

a2	assy. relay	117U6002
c	start capacitor (80µF)	117U5015
b	plastic cover	103N2010
d	cord relief	103N1010

Alternative components:

b	plastic cover	103N2011
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Model

Designation	NL10FT	208-230V/60Hz	Conf. 3	Sales code:	105G6140
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Optimization + standard conditions

208-230V/60Hz 1~, CSIR, static, VDE, CCC, CB

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P1	I	Ref. mass flow		
	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23,3	54,4	32,2	32,2	329,8	1126	283,8	1,28	4,37	1,10	257,6	1,48	6,40	ASHRAE LBP
	[°F]	-10	130	90										
	-25	55	32	55	244,6	835	210,5	1,01	3,44	0,87	243,1	1,42	5,85	cecomaf LBP
	[°F]	-13	131	89,6										
	-35	40	20	40	176,7	603	152,0	1,07	3,66	0,92	164,7	1,18	3,88	EN12900 LBP
	[°F]	-31	104	68										
	-23,3	48,9	4,44	48,9	268,3	916	230,9	1,06	3,62	0,91	253,5	1,45	7,09	ARI540 LBP
	[°F]	-10	120	40										
	-23,3	40,6	32,2	32,2	364,2	1244	313,4	1,49	5,09	1,28	244,2	1,37	7,07	AHAM LBP
	[°F]	-10	105	90										
	-35	45	32	45	164,8	563	141,8	1,01	3,44	0,87	163,8	1,21	3,55	opt
	[°F]	-31	113	89,6										

Performance tables

208-230V/60Hz 1~, CSIR, static, VDE, CCC, CB

	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	164,8	563	141,8	1,01	3,44	0,87	163,8	1,21	3,55
cond. pressure	-30	-22	220,9	755	190,1	1,13	3,85	0,97	196,0	1,26	4,78
pc= 45/113	-25	-13	289,3	988	249,0	1,23	4,19	1,06	235,5	1,37	6,27
return gas temp.	-23,3	-10	315,7	1078	271,7	1,26	4,31	1,09	250,0	1,41	6,85
RGT= 32/90	-20	-4	372,0	1270	320,2	1,34	4,56	1,15	278,6	1,51	8,08
liquid temp	-15	5	471,3	1609	405,6	1,47	5,01	1,26	321,4	1,66	10,27
Tliq= 45/113	-10	14	589,2	2012	507,1	1,63	5,58	1,41	360,4	1,80	12,89
[°C / °F]	-35	-31	132,8	454	114,3	0,79	2,71	0,68	167,5	1,21	3,16
cond. pressure	-30	-22	183,5	627	158,0	0,91	3,11	0,78	201,6	1,29	4,38
pc= 55/131	-25	-13	244,6	835	210,5	1,01	3,44	0,87	243,1	1,42	5,85
return gas temp	-23,3	-10	268,2	916	230,8	1,04	3,55	0,89	258,2	1,48	6,42
RGT= 32/90	-20	-4	318,3	1087	273,9	1,10	3,77	0,95	288,3	1,59	7,63
liquid temp	-15	5	406,7	1389	350,0	1,22	4,16	1,05	333,6	1,76	9,79
Tliq= 55/131	-10	14	512,1	1749	440,7	1,36	4,66	1,17	375,3	1,93	12,38

Model

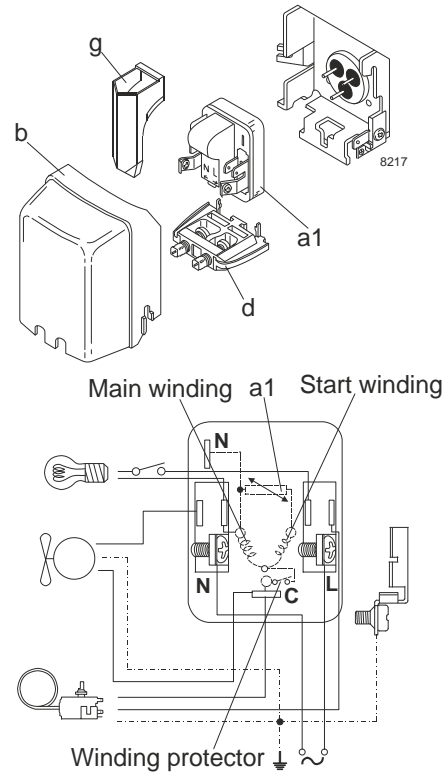
Designation	NL10FT	208-230V/60Hz	Conf. 4	Sales code:	105G6140
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Configuration

Motorconfiguration	RSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	187-253V
Starting torque	LST
Approvals	VDE
	CCC
	CB

Electrical accessories / wiring diagram

RSIR

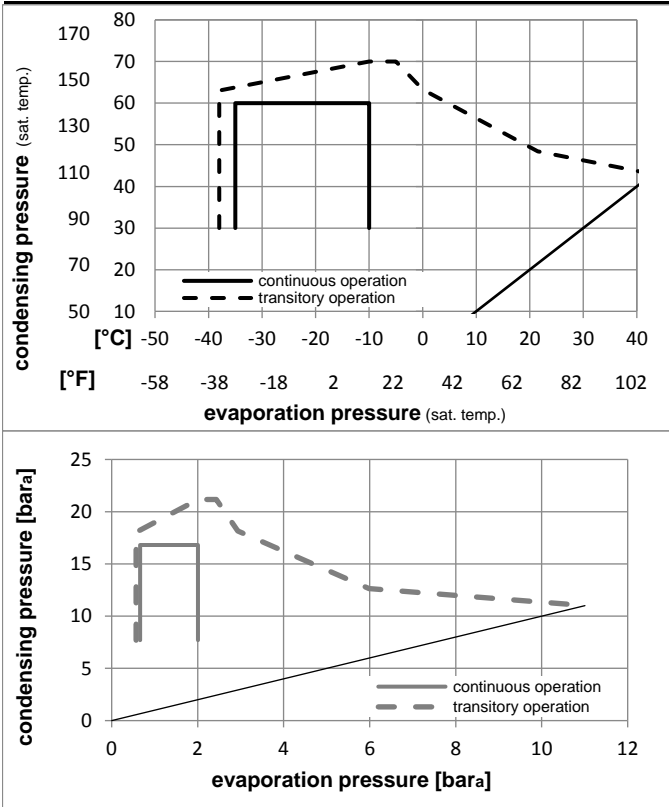


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling			
T ambient	LBP	MBP	HBP
32°C / 90°F	static	n/a	n/a
38°C / 100°F	fan 1,5m/s	n/a	n/a
43°C / 110°F	fan 3m/s	n/a	n/a

Operation pressure range



Components:

a1	PTC starter (220V, 250hm, 4.8mm)	103N0018
b	plastic cover	103N2010
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Alternative components:

a1	PTC starter (220V, 250hm, 6.3mm)	103N0011
b	plastic cover	103N2011
d	cord relief	103N1010
g	protection screen for PTC	103N0476

Model

Designation	NL10FT	208-230V/60Hz	Conf. 4	Sales code:	105G6140
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Optimization + standard conditions

208-230V/60Hz 1~, RSIR, static, VDE, CCC, CB

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.		Liquid temp.		Cooling capacity				COP	EER	P1	Current consumption		Ref. mass flow
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/WWh]	[kcal/Wh]	[W]	I	m	
[°C]	[°F]	[°C]	[°F]	[°C]	[°F]								[A]	[kg/h]	
[°C]	-23,3	54,4	32,2	32,2	329,8	1126	283,8	1,28	4,37	1,10	257,6	1,48	6,40	ASHRAE LBP	
[°F]	-10	130	90	90											
[°C]	-25	55	32	55	244,6	835	210,5	1,01	3,44	0,87	243,1	1,42	5,85	cecomaf LBP	
[°F]	-13	131	89,6	131											
[°C]	-35	40	20	40	176,7	603	152,0	1,07	3,66	0,92	164,7	1,18	3,88	EN12900 LBP	
[°F]	-31	104	68	104											
[°C]	-23,3	48,9	4,44	48,9	268,3	916	230,9	1,06	3,62	0,91	253,5	1,45	7,09	ARI540 LBP	
[°F]	-10	120	40	120											
[°C]	-23,3	40,6	32,2	32,2	364,2	1244	313,4	1,49	5,09	1,28	244,2	1,37	7,07	AHAM LBP	
[°F]	-10	105	90	90											
[°C]	-35	45	32	45	164,8	563	141,8	1,01	3,44	0,87	163,8	1,21	3,55	opt	
[°F]	-31	113	89,6	113											

Performance tables

208-230V/60Hz 1~, RSIR, static, VDE, CCC, CB

	pe	Cooling capacity			COP	EER	P1	I	m		
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/WWh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-35	-31	164,8	563	141,8	1,01	3,44	0,87	163,8	1,21	3,55
cond. pressure	-30	-22	220,9	755	190,1	1,13	3,85	0,97	196,0	1,26	4,78
pc= 45/113	-25	-13	289,3	988	249,0	1,23	4,19	1,06	235,5	1,37	6,27
return gas temp.	-23,3	-10	315,7	1078	271,7	1,26	4,31	1,09	250,0	1,41	6,85
RGT= 32/90	-20	-4	372,0	1270	320,2	1,34	4,56	1,15	278,6	1,51	8,08
liquid temp	-15	5	471,3	1609	405,6	1,47	5,01	1,26	321,4	1,66	10,27
Tliq= 45/113	-10	14	589,2	2012	507,1	1,63	5,58	1,41	360,4	1,80	12,89
[°C / °F]	-35	-31	132,8	454	114,3	0,79	2,71	0,68	167,5	1,21	3,16
cond. pressure	-30	-22	183,5	627	158,0	0,91	3,11	0,78	201,6	1,29	4,38
pc= 55/131	-25	-13	244,6	835	210,5	1,01	3,44	0,87	243,1	1,42	5,85
return gas temp	-23,3	-10	268,2	916	230,8	1,04	3,55	0,89	258,2	1,48	6,42
RGT= 32/90	-20	-4	318,3	1087	273,9	1,10	3,77	0,95	288,3	1,59	7,63
liquid temp	-15	5	406,7	1389	350,0	1,22	4,16	1,05	333,6	1,76	9,79
Tliq= 55/131	-10	14	512,1	1749	440,7	1,36	4,66	1,17	375,3	1,93	12,38