

Model
NL8.4CLX

Sales code:
105F3800

Compressor Data

Refrigerant(s)	R404A / R452A
Refr. charge - tech. limit	400g / 14.11oz
Weight	10.40 kg / 22.93lbs
Displacement	8.35 cm³ / 0.51cu.in
Compressors on pallet	80



General – Configurations With NL8.4CLX

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
–				
Motor configuration	RSIR	CSIR	RSIR	CSIR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz	220-240 V/50 Hz	220-240 V/50 Hz
Number of phases	1	1	1	1
Voltage range	198-254 V	198-254 V	198-254 V	198-254 V
Approvals	CCC, EAC	CCC, EAC	EAC	EAC
Starting torque	LST	HST	LST	HST
Refrigerant	R404A	R404A	R452A	R452A
Application	LBP	LBP	LBP	LBP

Application Notes

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

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Compressor Design

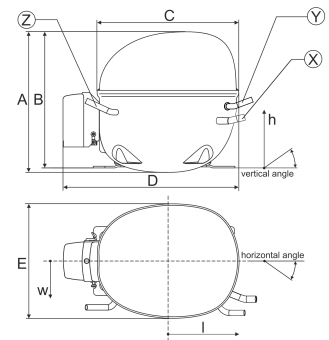
Oil type	POE	Winding resistance main	6.1 Ohm
Oil viscosity	32cSt	Winding resistance aux	16 Ohm
Oil quantity	300 / 10.14fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	2,310 cm ³ / 78.11fl.oz	Max. discharge temp.	130°C / 266°F
Motor protection	internal		

Compressor Dimensions

Housing

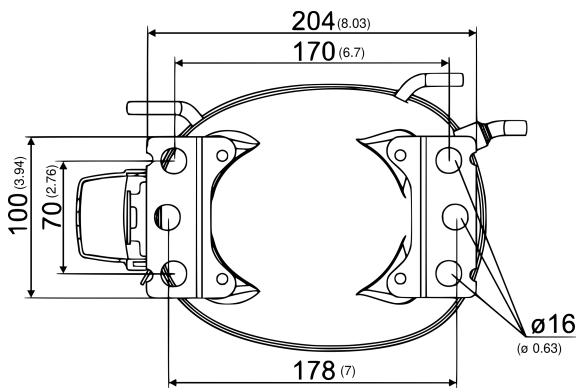
A Height	203mm / 7.99in
B Height	197mm / 7.76in
C Length shell	205mm / 8.07in
D Length w. cover	254mm / 10.00in
E Width	166mm / 6.54in

[Find 3D Model here](#)

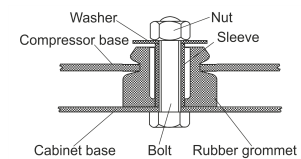


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	35°	155°
Position l/h/w [mm]	125.5/75.5/78 / 4.94/2.97/3.07in	133/102.5/54 / 5.24/4.04/2.13in	-107/93.5/72 / -4.21/3.68/2.83in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

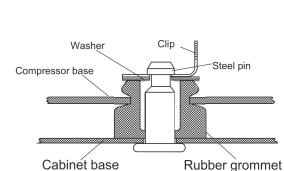
Mounting Accessories



Bolt joint



Snap-on



Dimensions in mm [in]

	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
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Configuration 1

Sales code:
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Configuration

Motor configuration	RSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R404A
Application	LBP
Voltage range	198-254 V
Starting torque	LST
Approvals	CCC, EAC
Starting device type	PTC
Run capacitor	-/-
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	13.7 A
RLA (rated load amps / 1s/ U(N))	2.5 A
Cut in current (U(N))	13.7 A

Ambient/ machine room temperatures minimum /maximum

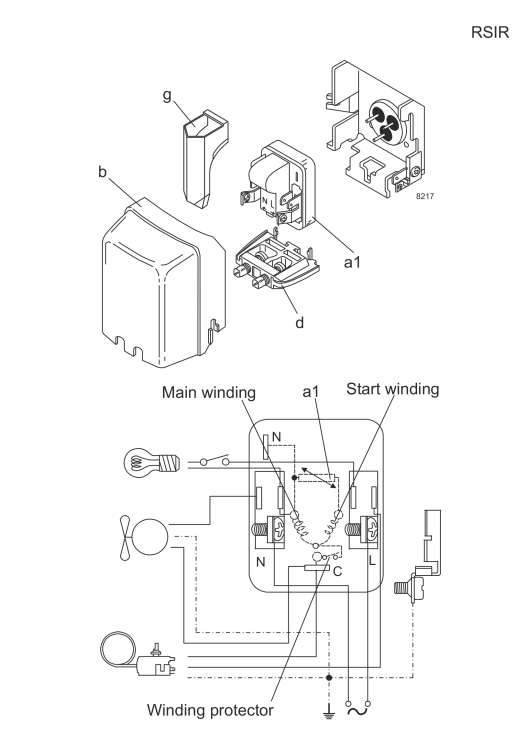
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

a1 PTC starter (220V, 250Ohm, 4.8mm) 103N0018

b plastic cover 103N2010

d cord relief 103N1010

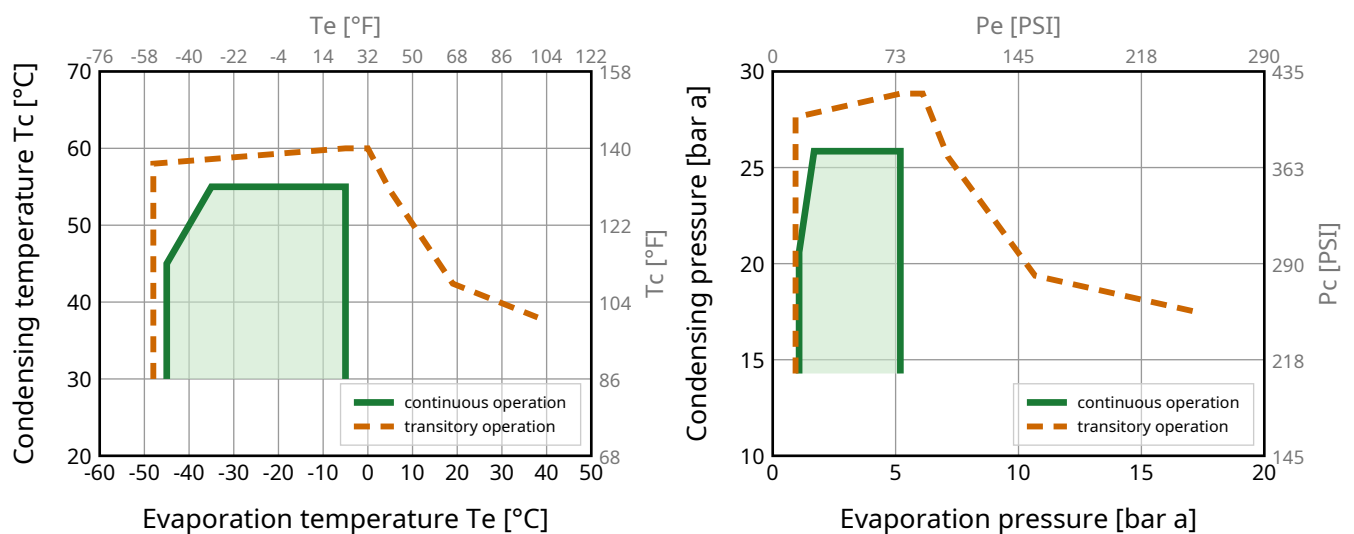
g protection screen for PTC 103N0476

Alternative components

a1 PTC starter (220V, 250Ohm, 6.3mm) 103N0011

b plastic cover 103N2011

Operation Pressure Range



Model
NL8.4CLX

Configuration 1

Sales code:
105F3800

Standard Conditions

R404A, 220 V/50 Hz, RSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	422	1441	363	1.28	4.36	331	2.23	9.82	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	286	974	246	0.90	3.08	316	2.17	8.91	CECOMAF LBP
-35 -31	40 104	20 68	40 104	229	781	197	0.98	3.36	232	1.87	6.20	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	319	1089	274	0.98	3.35	325	2.19	11.26	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	480	1637	413	1.57	5.34	306	2.11	11.15	AHAM LBP
-35 -31	45 113	32 89.6	45 113	216	738	186	0.91	3.09	239	1.89	5.77	opt LBP

Performance Tables

R404A, 220 V/50 Hz, RSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	111	379	95	0.64	2.17	174	1.74	2.94
-40	-40	158	540	136	0.77	2.62	207	1.81	4.21
-30	-22	286	978	246	1.06	3.60	271	1.99	7.67
-20	-4	468	1598	403	1.37	4.66	343	2.25	12.68
-10	14	715	2439	615	1.67	5.70	428	2.57	19.65
-5	23	866	2954	745	1.81	6.17	479	2.76	24.03

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-45	-49	76	259	65	0.48	1.63	159	1.71	2.33
-40	-40	114	389	98	0.58	1.97	198	1.80	3.50
-30	-22	217	742	187	0.79	2.70	275	2.03	6.74
-20	-4	367	1251	315	1.02	3.47	360	2.33	11.51
-10	14	572	1953	492	1.25	4.25	460	2.71	18.30
-5	23	700	2389	602	1.35	4.61	518	2.92	22.64

Model
NL8.4CLX

Configuration 2

Sales code:
105F3800

Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R404A
Application	LBP
Voltage range	198-254 V
Starting torque	HST
Approvals	CCC, EAC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	13.7 A
RLA (rated load amps / 1s/ U(N))	2.5 A
Cut in current (U(N))	13.7 A

Ambient/ machine room temperatures minimum /maximum

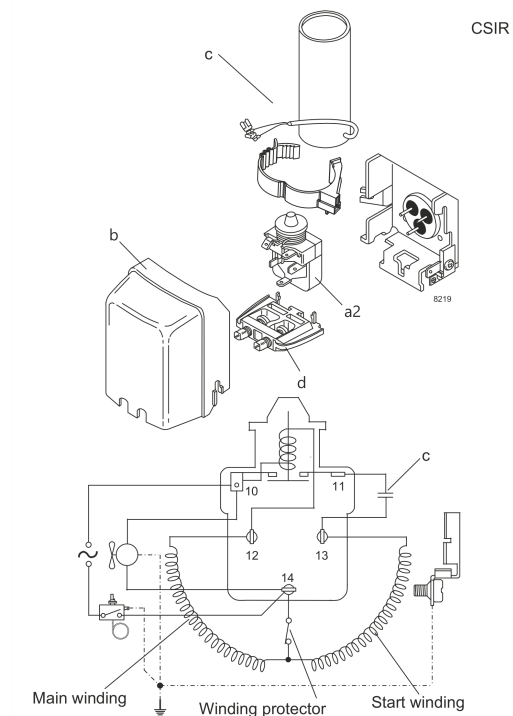
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

a2 assy. relay 117U6003

c start capacitor (80µF) 117U5015

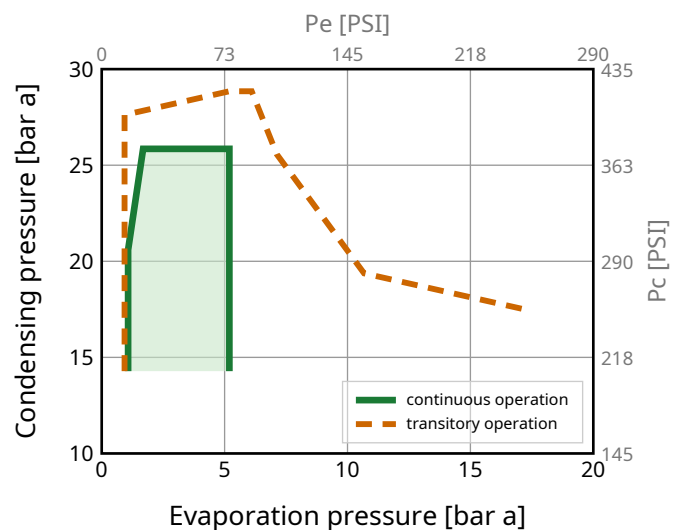
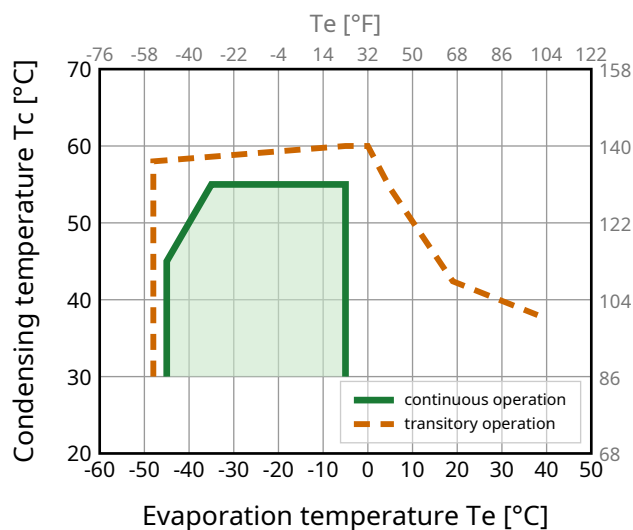
b plastic cover 103N2010

d cord relief 103N1010

Alternative components

b plastic cover 103N2011

Operation Pressure Range



Model
NL8.4CLX

Configuration 2

Sales code:
105F3800

Standard Conditions

R404A, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	422	1441	363	1.28	4.36	331	2.23	9.82	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	286	974	246	0.90	3.08	316	2.17	8.91	CECOMAF LBP
-35 -31	40 104	20 68	40 104	229	781	197	0.98	3.36	232	1.87	6.20	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	319	1089	274	0.98	3.35	325	2.19	11.26	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	480	1637	413	1.57	5.34	306	2.11	11.15	AHAM LBP
-35 -31	45 113	32 89.6	45 113	216	738	186	0.91	3.09	239	1.89	5.77	opt LBP

Performance Tables

R404A, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	111	379	95	0.64	2.17	174	1.74	2.94
-40	-40	158	540	136	0.77	2.62	207	1.81	4.21
-30	-22	286	978	246	1.06	3.60	271	1.99	7.67
-20	-4	468	1598	403	1.37	4.66	343	2.25	12.68
-10	14	715	2439	615	1.67	5.70	428	2.57	19.65
-5	23	866	2954	745	1.81	6.17	479	2.76	24.03

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-45	-49	76	259	65	0.48	1.63	159	1.71	2.33
-40	-40	114	389	98	0.58	1.97	198	1.80	3.50
-30	-22	217	742	187	0.79	2.70	275	2.03	6.74
-20	-4	367	1251	315	1.02	3.47	360	2.33	11.51
-10	14	572	1953	492	1.25	4.25	460	2.71	18.30
-5	23	700	2389	602	1.35	4.61	518	2.92	22.64

Model
NL8.4CLX

Configuration 3

Sales code:
105F3800

Configuration

Motor configuration	RSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R452A
Application	LBP
Voltage range	198-254 V
Starting torque	LST
Approvals	EAC
Starting device type	PTC
Run capacitor	-/-
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	13.7 A
RLA (rated load amps / 1s/ U(N))	2.5 A
Cut in current (U(N))	13.7 A

Ambient/ machine room temperatures minimum /maximum

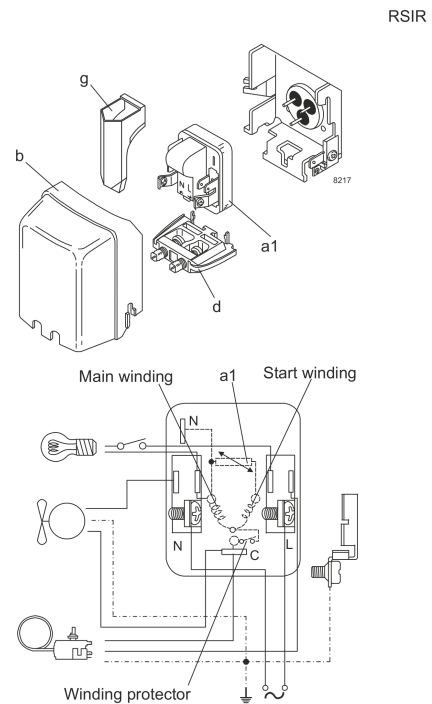
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

a1 PTC starter (220V, 250Ohm, 4.8mm) 103N0018

b plastic cover 103N2010

d cord relief 103N1010

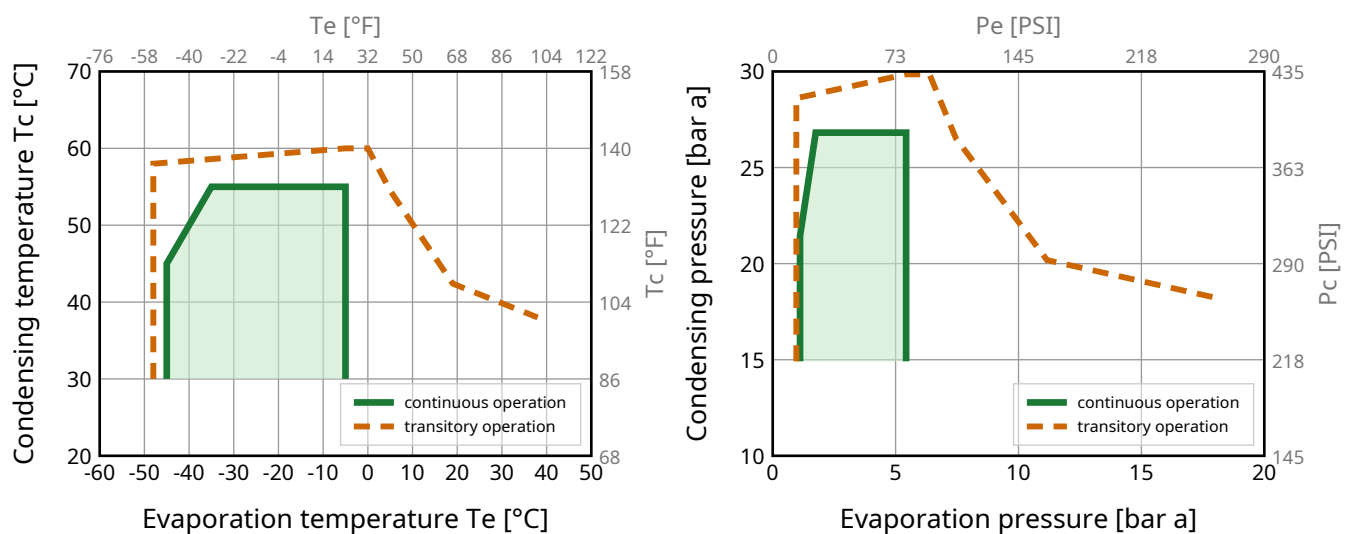
g protection screen for PTC 103N0476

Alternative components

a1 PTC starter (220V, 250Ohm, 6.3mm) 103N0011

b plastic cover 103N2011

Operation Pressure Range



Model

NL8.4CLX

Configuration 3

Sales code:

105F3800

Standard Conditions

R452A, 220 V/50 Hz, RSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	388	1325	334	1.26	4.30	308	1.86	9.39	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	263	897	226	0.90	3.06	294	1.81	8.48	CECOMAF LBP
-35 -31	40 104	20 68	40 104	206	703	177	0.96	3.29	214	1.60	5.80	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	296	1009	254	0.97	3.33	304	1.85	10.80	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	442	1509	380	1.54	5.26	287	1.81	10.70	AHAM LBP
-35 -31	45 113	32 89.6	45 113	194	663	167	0.89	3.03	218	1.62	5.38	opt LBP

Performance Tables

R452A, 220 V/50 Hz, RSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	94	322	81	0.61	2.08	155	1.50	2.60
-40	-40	139	475	120	0.75	2.55	187	1.55	3.85
-30	-22	261	890	224	1.04	3.55	251	1.70	7.26
-20	-4	435	1484	374	1.35	4.62	322	1.92	12.23
-10	14	673	2298	579	1.66	5.65	406	2.23	19.23
-5	23	821	2800	706	1.80	6.13	457	2.43	23.66

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-45	-49	62	212	53	0.45	1.55	137	1.48	1.97
-40	-40	98	336	85	0.56	1.91	176	1.53	3.13
-30	-22	197	674	170	0.78	2.66	253	1.70	6.33
-20	-4	341	1165	294	1.01	3.46	337	1.96	11.08
-10	14	542	1850	466	1.24	4.24	436	2.36	17.92
-5	23	668	2278	574	1.35	4.61	494	2.62	22.32

Model
NL8.4CLX

Configuration 4

Sales code:
105F3800

Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R452A
Application	LBP
Voltage range	198-254 V
Starting torque	HST
Approvals	EAC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	13.7 A
RLA (rated load amps / 1s/ U(N))	2.5 A
Cut in current (U(N))	13.7 A

Ambient/ machine room temperatures minimum /maximum

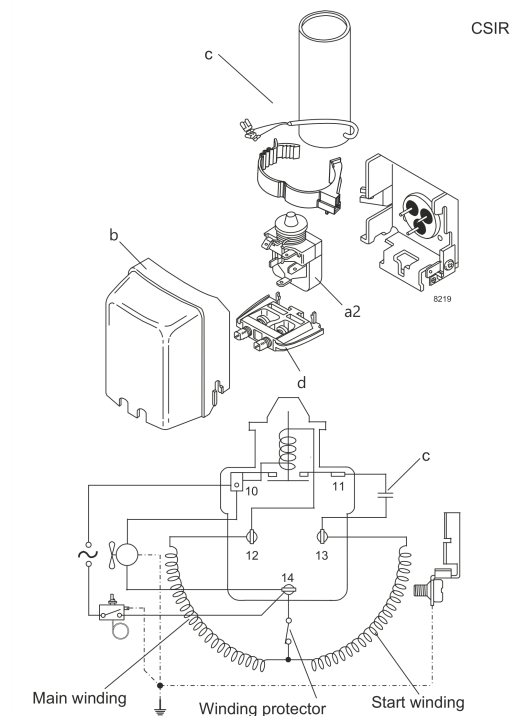
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Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

a2 assy. relay 117U6003

c start capacitor (80µF) 117U5015

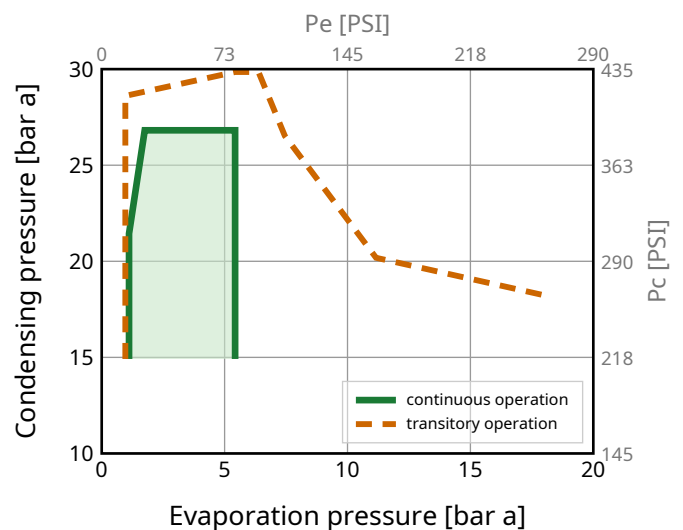
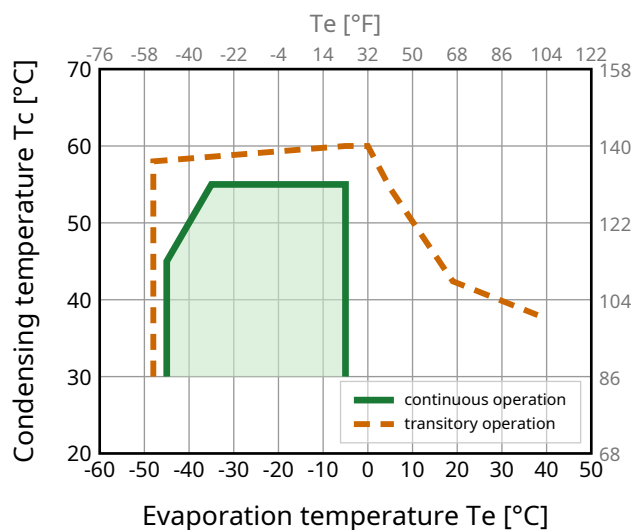
b plastic cover 103N2010

d cord relief 103N1010

Alternative components

b plastic cover 103N2011

Operation Pressure Range



Model

NL8.4CLX

Configuration 4

Sales code:

105F3800

Standard Conditions

R452A, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
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-23.3 -10	40.6 105.1	32.2 90	32.2 90	442	1509	380	1.54	5.26	287	1.81	10.70	AHAM LBP
-35 -31	45 113	32 89.6	45 113	194	663	167	0.89	3.03	218	1.62	5.38	opt LBP

Performance Tables

R452A, 220 V/50 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	94	322	81	0.61	2.08	155	1.50	2.60
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-30	-22	261	890	224	1.04	3.55	251	1.70	7.26
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pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

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-30	-22	197	674	170	0.78	2.66	253	1.70	6.33
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-10	14	542	1850	466	1.24	4.24	436	2.36	17.92
-5	23	668	2278	574	1.35	4.61	494	2.62	22.32