Model
NLE8.0CNT

Sales code:
105H6073

Compressor Data

Refrigerant(s)	**R290**
Refr. charge - tech. limit	**400g / 14.11oz**
Weight	**11.10 kg / 24.47lbs**
Displacement	**7.96 cm3 / 0.49cu.in**
Compressors on pallet	**80**

General – Configurations With NLE8.0CNT

–	Conf. 1	Conf. 2	Conf. 3	Conf. 4	Conf. 5
Motor configuration	CSIR	eRSCR	eRSIR	CSIR	eRSCR
Power supply (nominal)	208-230 V/60 Hz	208-230 V/60 Hz	208-230 V/60 Hz	220-230 V/50 Hz	220-230 V/50 Hz
Number of phases	1	1	1	1	1
Voltage range	187-253 V	187-253 V	187-253 V	187-242 V	187-242 V
Approvals	UL, CCC	UL, CCC	UL, CCC	UL, CCC	UL, CCC
Starting torque	HST	LST	LST	HST	LST
Refrigerant	R290	R290	R290	R290	R290
Application	LBP+MBP	LBP+MBP	LBP+MBP	LBP+MBP	LBP+MBP
Hot gas defrost	OK	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK	OK

Application Notes

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

Model
NLE8.0CNT

Sales code:
105H6073

Compressor Design

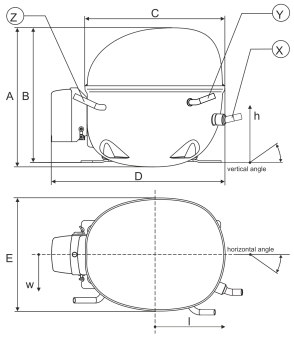
Oil type	**POE**	Winding resistance main	**7.68 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**13.88 Ohm**
Oil quantity	**268 / 9.06fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**120°C / 248°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

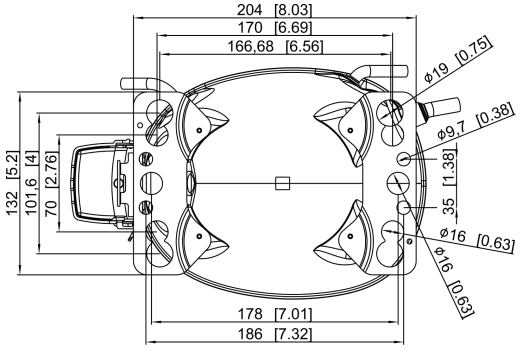
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



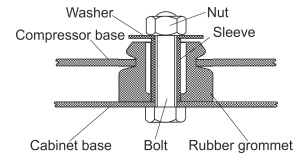
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	21°	155°
Position l/h/w [mm]	132/68.5/56.7 / 5.20/2.70/2.23in	94/101.7/81 / 3.70/4.00/3.19in	-109.3/94.3/72 / -4.30/3.71/2.83in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

Mounting Accessories

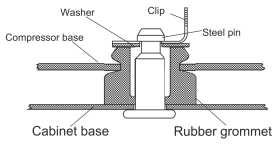


Dimensions in mm [in]

Bolt joint



Snap-on



	one comp.	multi pack
Bolt joint | M6 | ø16mm	118-1917	118-1918
Bolt joint | ø1/4" | ø16mm	118-1946	–
Bolt joint | ø1/4" | ø19mm	118-1949	–
Snap-on | ø7,3 | ø16mm	118-1947	118-1919

Model
NLE8.0CNT Configuration 1

Sales code:
105H6073

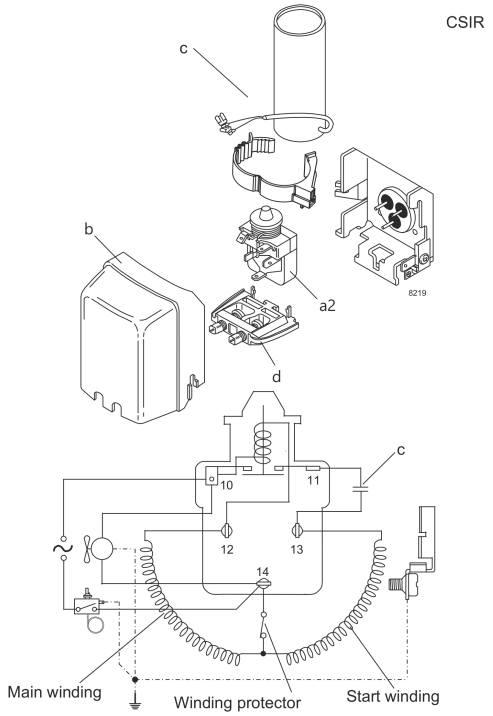
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**187-253 V**
Starting torque	**HST**
Approvals	**UL, CCC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**60 µF**
RLA (rated load amps / 1s/ U(N))	**2.2 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram

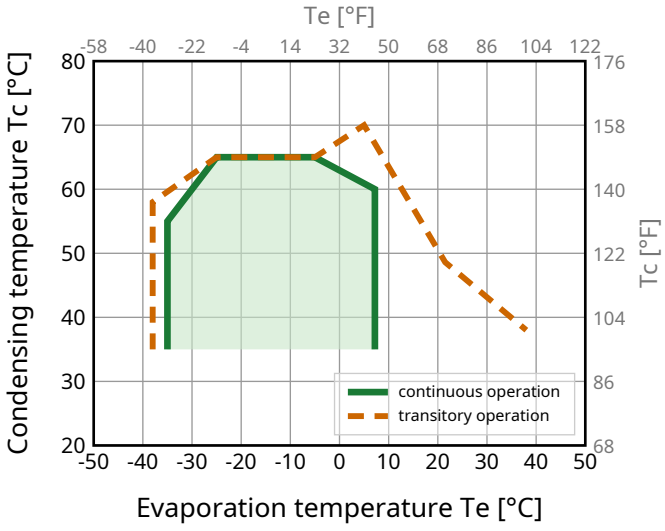


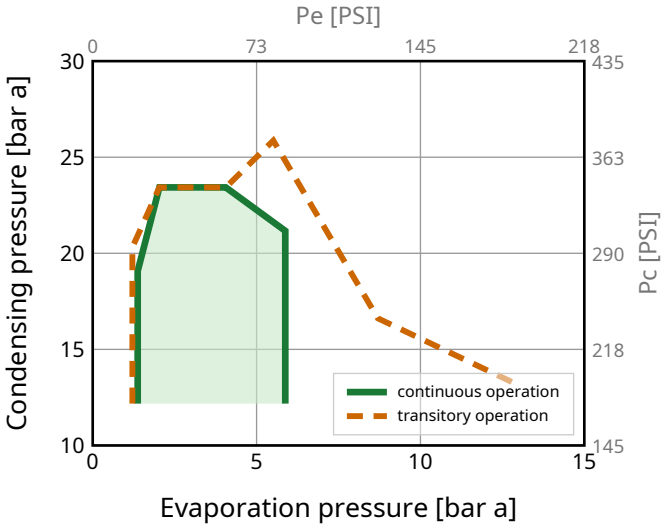
View full size

Components
a2 relay 117U7003
c start capacitor (60µF) 117U5014
b plastic cover 103N2011
d cord relief 103N1010

Alternative components
b plastic cover 103N2010

Operation Pressure Range





Model
NLE8.0CNT Configuration 1

Sales code:
105H6073

Standard Conditions

R290, 220 V/60 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°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	**443**	1511	381	**1.52**	5.20	291	1.75	4.50	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**326**	1113	281	**1.17**	4.01	278	1.72	4.09	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**244**	834	210	**1.20**	4.10	203	1.53	2.80	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**809**	2761	696	**2.04**	6.96	396	2.10	9.26	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**641**	2186	551	**1.69**	5.76	380	2.04	8.15	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**719**	2452	618	**2.10**	7.18	341	1.92	8.84	**EN12900 MBP**

Performance Tables

R290, 220 V/60 Hz, CSIR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**229**	780	197	**1.10**	3.76	207	1.54	2.58
-30	-22	**307**	1048	264	**1.29**	4.42	237	1.61	3.47
-20	-4	**497**	1697	428	**1.70**	5.78	293	1.76	5.66
-10	14	**747**	2549	642	**2.19**	7.47	341	1.92	8.58
0	32	**1074**	3665	924	**2.84**	9.70	378	2.05	12.49
7.2	45	**1368**	4667	1176	**3.46**	11.80	396	2.12	16.09

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

-35	-31	**171**	584	147	**0.86**	2.94	199	1.52	2.13
-30	-22	**245**	835	211	**1.02**	3.49	239	1.61	3.06
-20	-4	**418**	1426	359	**1.33**	4.53	314	1.82	5.26
-10	14	**641**	2186	551	**1.69**	5.76	380	2.04	8.15
0	32	**932**	3179	801	**2.16**	7.36	432	2.23	12.01
7.2	45	**1193**	4071	1026	**2.60**	8.87	459	2.35	15.59

Model
NLE8.0CNT Configuration 2

Sales code:
105H6073

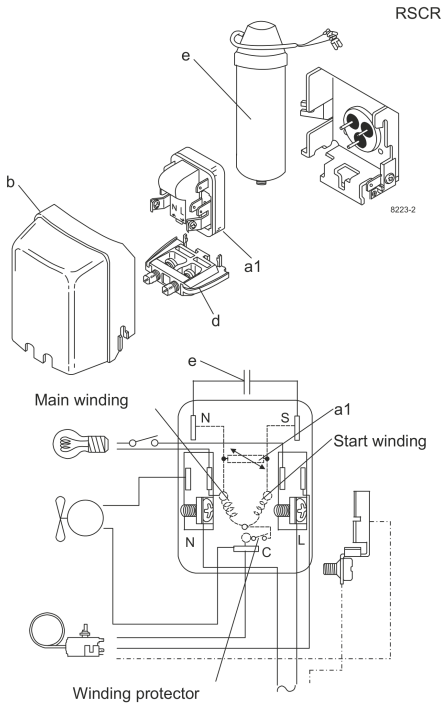
Configuration

Motor configuration	**eRSCR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**187-253 V**
Starting torque	**LST**
Approvals	**UL, CCC**
Starting device type	**e-PTC**
Run capacitor	**4 µF**
Start capacitor	**-/-**
RLA (rated load amps / 1s/ U(N))	**2.2 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

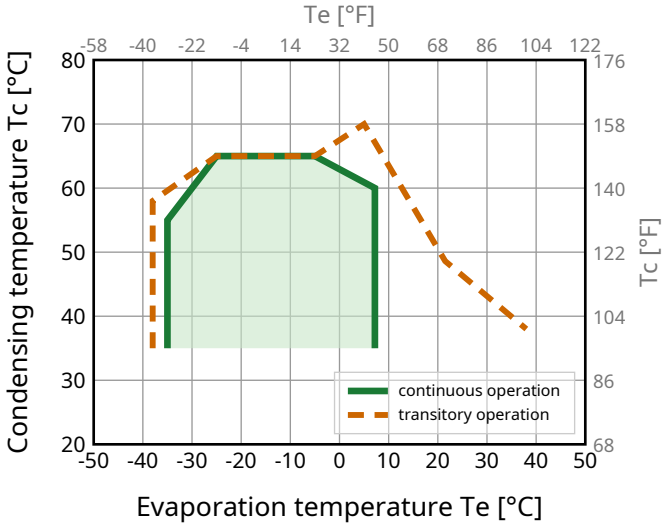
System Cooling
fan 3m/s

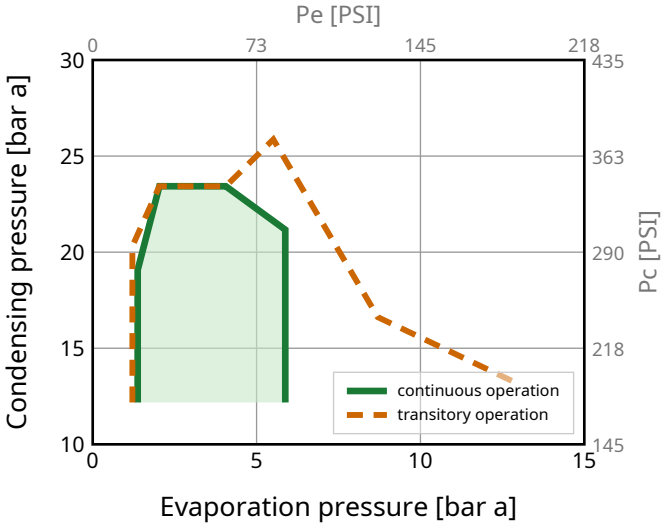
Electrical Accessories / Wiring Diagram



Components
a1 e-PTC starter (220V, 25Ohm, 4.8mm) 103N0050
e run capacitor (4µF, 4.8mm) 117-7119
b plastic cover 103N2011
d cord relief 103N1010
bracket for run capacitor 117-0300
screw M4x8mm 117-0301

Operation Pressure Range





Model
NLE8.0CNT Configuration 2

Sales code:
105H6073

Standard Conditions

R290, 220 V/60 Hz, eRSCR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°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	**444**	1515	382	**1.64**	5.59	271	1.33	4.51	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**327**	1116	281	**1.26**	4.30	259	1.28	4.10	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**245**	835	211	**1.29**	4.41	189	1.00	2.81	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**813**	2773	699	**2.21**	7.52	368	1.73	9.30	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**643**	2195	553	**1.82**	6.22	353	1.67	8.18	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**721**	2460	620	**2.27**	7.74	318	1.49	8.87	**EN12900 MBP**

Performance Tables

R290, 220 V/60 Hz, eRSCR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**229**	782	197	**1.19**	4.05	193	1.02	2.58
-30	-22	**308**	1050	265	**1.39**	4.74	221	1.13	3.48
-20	-4	**499**	1702	429	**1.82**	6.22	274	1.33	5.67
-10	14	**750**	2558	645	**2.36**	8.04	318	1.49	8.61
0	32	**1078**	3680	928	**3.07**	10.46	352	1.62	12.54
7.2	45	**1374**	4687	1181	**3.73**	12.74	368	1.67	16.16

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

-35	-31	**172**	586	148	**0.93**	3.16	186	0.97	2.14
-30	-22	**245**	837	211	**1.10**	3.75	223	1.13	3.06
-20	-4	**419**	1430	360	**1.43**	4.88	293	1.42	5.28
-10	14	**643**	2195	553	**1.82**	6.22	353	1.67	8.18
0	32	**936**	3195	805	**2.34**	7.98	400	1.86	12.07
7.2	45	**1200**	4093	1032	**2.82**	9.62	425	1.95	15.67

Model
NLE8.0CNT Configuration 3

Sales code:
105H6073

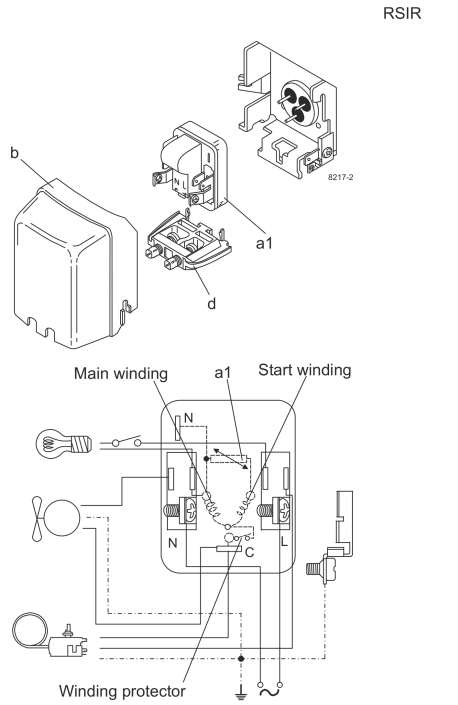
Configuration

Motor configuration	**eRSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**187-253 V**
Starting torque	**LST**
Approvals	**UL, CCC**
Starting device type	**e-PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
RLA (rated load amps / 1s/ U(N))	**2.2 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

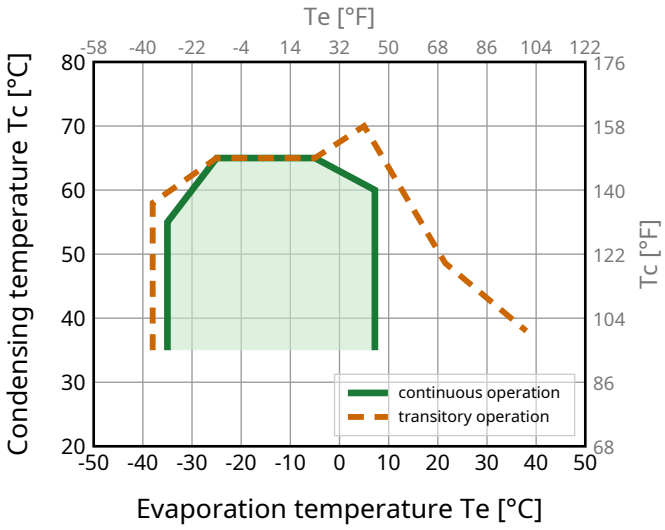
System Cooling
fan 3m/s

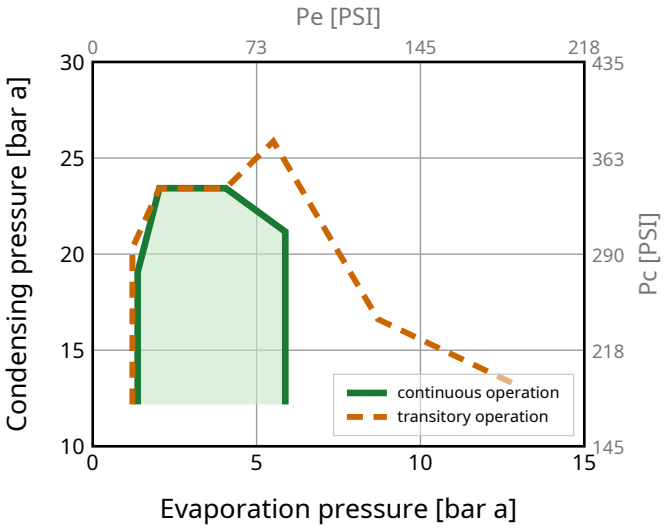
Electrical Accessories / Wiring Diagram



Components
a1 e-PTC starter (220V, 25Ohm, 4.8mm) 103N0050
b plastic cover 103N2011
d cord relief 103N1010

Operation Pressure Range





Model
NLE8.0CNT Configuration 3

Sales code:
105H6073

Standard Conditions

R290, 220 V/60 Hz, eRSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°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	**443**	1511	381	**1.52**	5.20	291	1.75	4.50	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**326**	1113	281	**1.17**	4.01	278	1.72	4.09	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**244**	834	210	**1.20**	4.10	203	1.53	2.80	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**809**	2761	696	**2.04**	6.96	396	2.10	9.26	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**641**	2186	551	**1.69**	5.76	380	2.04	8.15	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**719**	2452	618	**2.10**	7.18	341	1.92	8.84	**EN12900 MBP**

Performance Tables

R290, 220 V/60 Hz, eRSIR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**229**	780	197	**1.10**	3.76	207	1.54	2.58
-30	-22	**307**	1048	264	**1.29**	4.42	237	1.61	3.47
-20	-4	**497**	1697	428	**1.70**	5.78	293	1.76	5.66
-10	14	**747**	2549	642	**2.19**	7.47	341	1.92	8.58
0	32	**1074**	3665	924	**2.84**	9.70	378	2.05	12.49
7.2	45	**1368**	4667	1176	**3.46**	11.80	396	2.12	16.09

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

-35	-31	**171**	584	147	**0.86**	2.94	199	1.52	2.13
-30	-22	**245**	835	211	**1.02**	3.49	239	1.61	3.06
-20	-4	**418**	1426	359	**1.33**	4.53	314	1.82	5.26
-10	14	**641**	2186	551	**1.69**	5.76	380	2.04	8.15
0	32	**932**	3179	801	**2.16**	7.36	432	2.23	12.01
7.2	45	**1193**	4071	1026	**2.60**	8.87	459	2.35	15.59

Model

NLE8.0CNT Configuration 4

Sales code:

105H6073

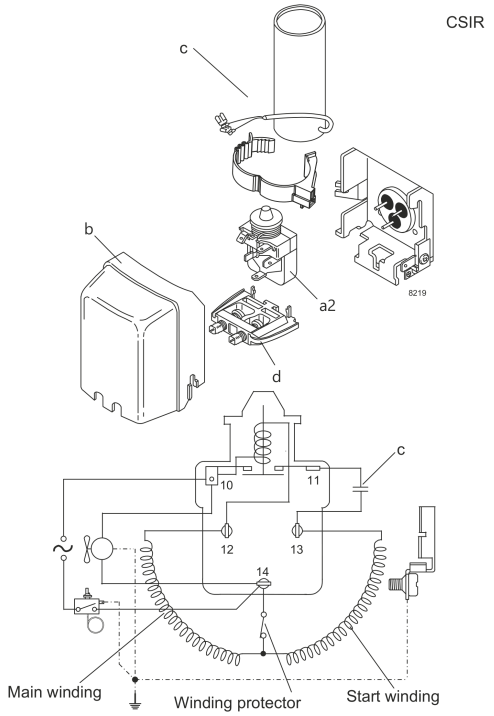
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-230 V/50 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**187-242 V**
Starting torque	**HST**
Approvals	**UL, CCC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**60 µF**
RLA (rated load amps / 1s/ U(N))	**2.2 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 3m/s

Electrical Accessories / Wiring Diagram

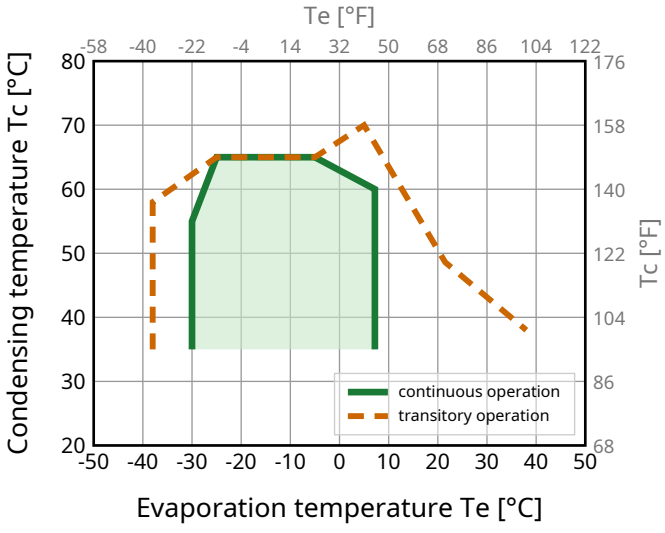


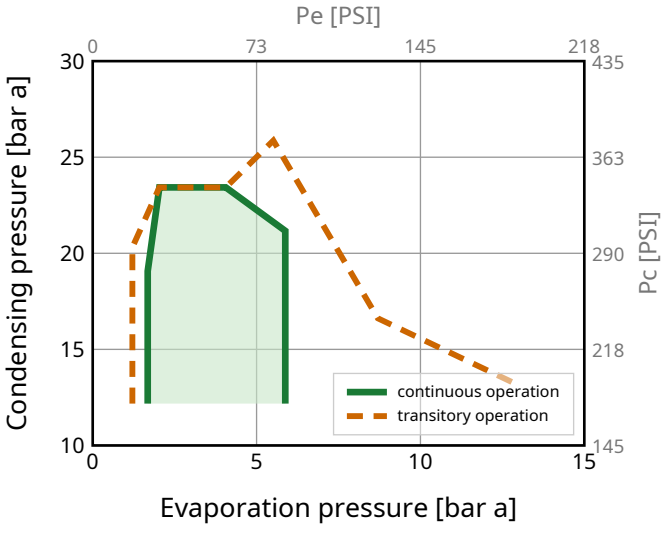
View full size

Components
a2 relay 117U7003
c start capacitor (60µF) 117U5014
b plastic cover 103N2011
d cord relief 103N1010

Alternative components
b plastic cover 103N2010

Operation Pressure Range





Model

NLE8.0CNT Configuration 4

Sales code:

105H6073

Standard Conditions

R290, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°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	**378**	1291	325	**1.45**	4.96	260	1.99	3.84	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**279**	951	240	**1.11**	3.80	250	1.96	3.49	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**209**	712	179	**1.09**	3.74	190	1.81	2.39	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**693**	2363	596	**2.02**	6.89	343	2.20	7.93	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**548**	1871	472	**1.66**	5.67	330	2.16	6.97	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**614**	2096	528	**2.05**	6.98	300	2.05	7.56	**EN12900 MBP**

Performance Tables

R290, 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	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-30	-22	**262**	895	225	**1.20**	4.11	218	1.87	2.96
-20	-4	**425**	1450	365	**1.62**	5.53	262	1.96	4.83
-10	14	**639**	2180	549	**2.13**	7.26	300	2.05	7.33
0	32	**919**	3136	790	**2.79**	9.54	329	2.13	10.69
7.2	45	**1171**	3994	1007	**3.42**	11.66	343	2.17	13.77

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

-30	-22	**209**	713	180	**0.95**	3.25	220	1.90	2.61
-20	-4	**357**	1219	307	**1.28**	4.37	279	2.03	4.50
-10	14	**548**	1871	472	**1.66**	5.67	330	2.16	6.97
0	32	**798**	2722	686	**2.15**	7.35	371	2.28	10.29
7.2	45	**1022**	3488	879	**2.61**	8.90	392	2.35	13.36

Model
NLE8.0CNT Configuration 5

Sales code:
105H6073

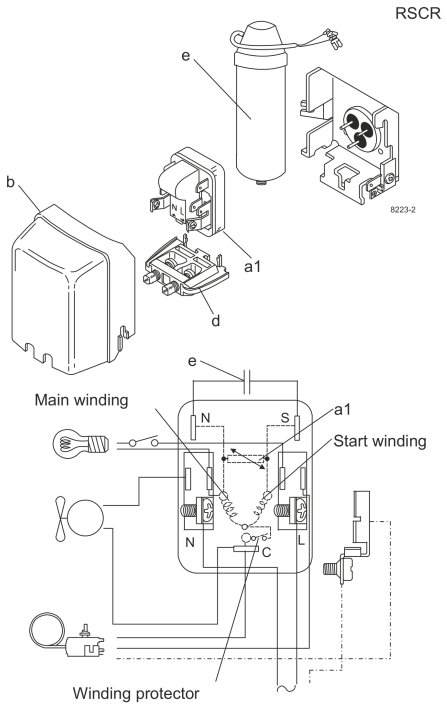
Configuration

Motor configuration	**eRSCR**
Power supply (nominal)	**220-230 V/50 Hz 1~**
Refrigerant	**R290**
Application	**LBP+MBP**
Voltage range	**187-242 V**
Starting torque	**LST**
Approvals	**UL, CCC**
Starting device type	**e-PTC**
Run capacitor	**4 µF**
Start capacitor	**-/-**
RLA (rated load amps / 1s/ U(N))	**2.2 A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

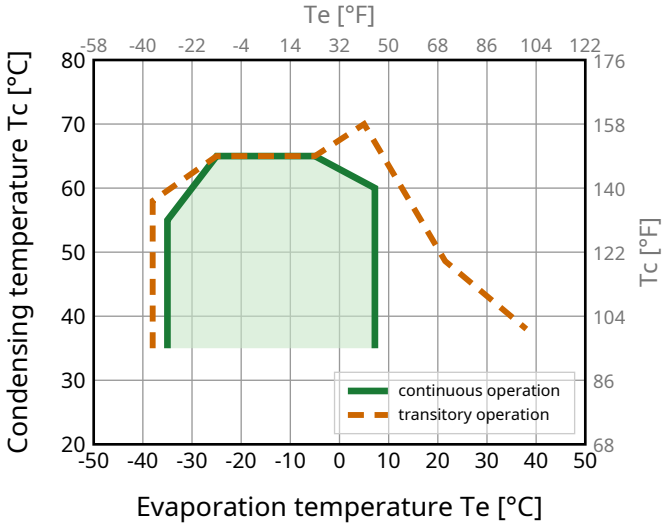
System Cooling
fan 3m/s

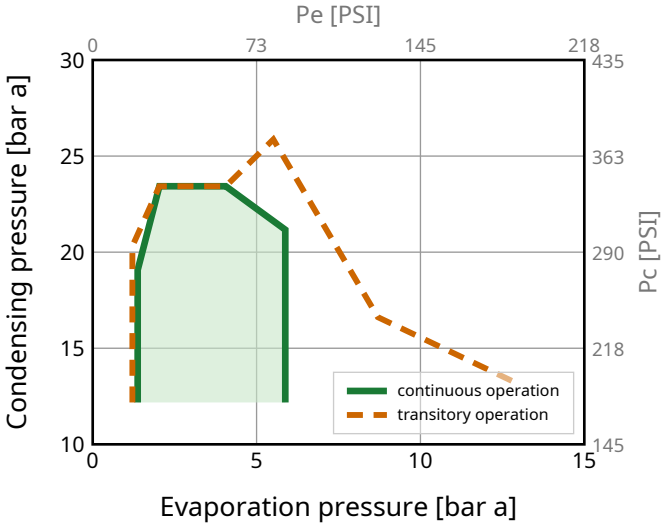
Electrical Accessories / Wiring Diagram



Components
a1 e-PTC starter (220V, 25Ohm, 4.8mm) 103N0050
e run capacitor (4µF, 4.8mm) 117-7119
b plastic cover 103N2011
d cord relief 103N1010
bracket for run capacitor 117-0300
screw M4x8mm 117-0301

Operation Pressure Range





Model

NLE8.0CNT Configuration 5

Sales code:

105H6073

Standard Conditions

R290, 220 V/50 Hz, eRSCR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°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	**379**	1293	326	**1.56**	5.32	243	1.56	3.85	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**279**	952	240	**1.20**	4.08	233	1.53	3.50	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**209**	712	180	**1.18**	4.02	177	1.37	2.40	**EN12900 LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**694**	2369	597	**2.16**	7.37	321	1.81	7.95	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**550**	1875	473	**1.78**	6.07	309	1.77	6.99	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**616**	2101	530	**2.19**	7.48	281	1.64	7.58	**EN12900 MBP**

Performance Tables

R290, 220 V/50 Hz, eRSCR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	**196**	667	168	**1.08**	3.70	180	1.39	2.20
-30	-22	**262**	896	226	**1.29**	4.41	203	1.43	2.97
-20	-4	**426**	1452	366	**1.74**	5.92	245	1.53	4.84
-10	14	**640**	2184	550	**2.28**	7.77	281	1.64	7.35
0	32	**921**	3143	792	**2.99**	10.20	308	1.73	10.71
7.2	45	**1174**	4004	1009	**3.65**	12.46	321	1.77	13.80

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

-35	-31	**147**	500	126	**0.84**	2.87	174	1.38	1.83
-30	-22	**209**	714	180	**1.02**	3.49	204	1.45	2.62
-20	-4	**358**	1221	308	**1.37**	4.68	261	1.61	4.50
-10	14	**550**	1875	473	**1.78**	6.07	309	1.77	6.99
0	32	**800**	2730	688	**2.31**	7.87	347	1.90	10.32
7.2	45	**1025**	3499	882	**2.79**	9.54	367	1.97	13.40