Single
Packs

Single Pack NLE8.0CNT 220-230V 50Hz / 208-230V 60Hz CSIR

Single pack code number: **195B4315**

Position	Title	Code	Amount
1	Compressor NLE8.0CNT	105H6073	1
2	Starting relay	117U7003	1
3	Starting capacitor (60µF 220V, 6.3mm)	117U5014	1
4	Cord relief	103N1010	1
5	Cover	103N2011	1
6	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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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

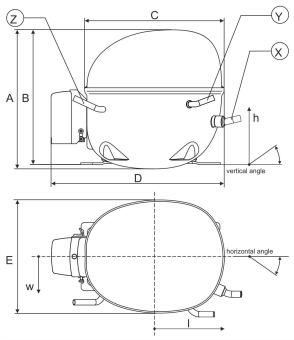
Oil type	**POE**	Winding resistance main	**7.68 Ohm**
Oil viscosity	**32cSt**	Winding resistance aux	**13.88 Ohm**
Oil quantity	**268 / 9.06fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**2,360 cm3 / 79.80fl.oz**	Max. discharge temp.	**120°C / 248°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

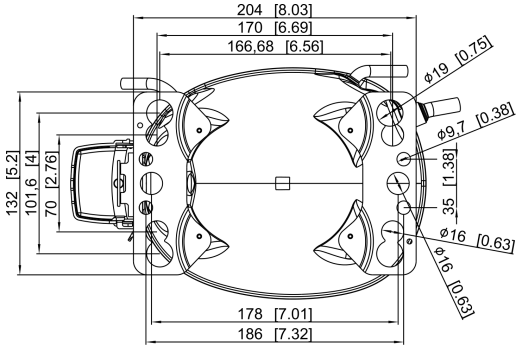
A Height	**203mm / 7.99in**
B Height	**197mm / 7.76in**
C Length shell	**205mm / 8.07in**
D Length w. cover	**254mm / 10.00in**
E Width	**166mm / 6.54in**

Find 3D Model here



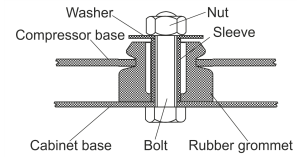
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	21°	155°
Position l/h/w [mm]	132/68.5/56.7 / 5.20/2.70/2.23in	94/101.7/81 / 3.70/4.00/3.19in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

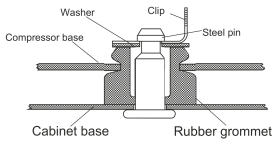


Dimensions in mm [in]

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

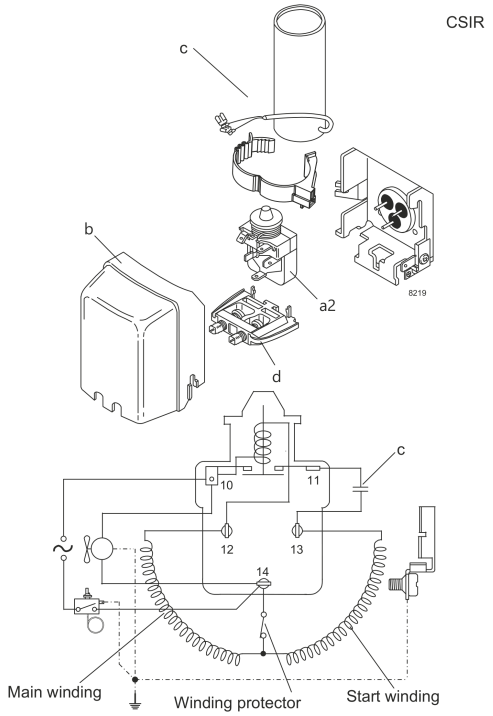
Configuration

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



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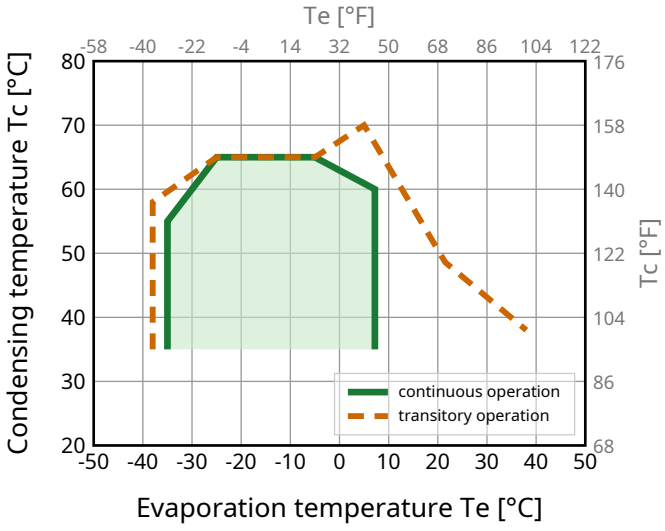
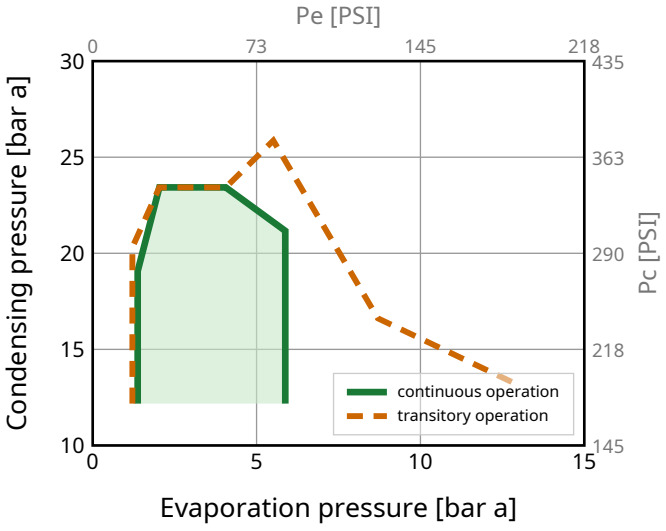
Components
a2 relay 117U7003
c start capacitor (60µF) 117U5014
b plastic cover 103N2011
d cord relief 103N1010

Alternative components
b plastic cover 103N2010

Operation Pressure Range





Model Sales code:

NLE8.0CNT Configuration 1 **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

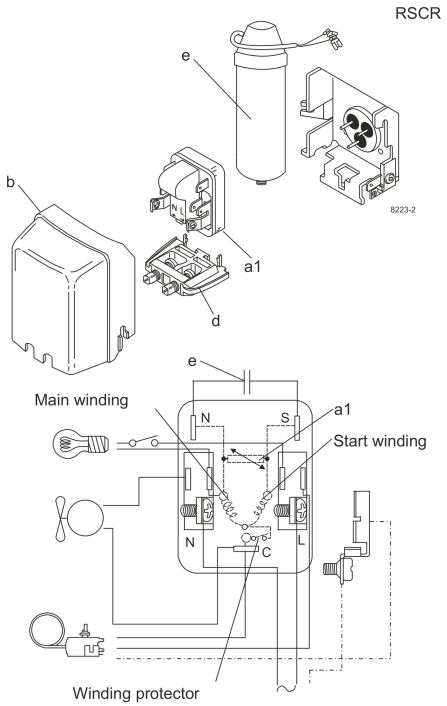
Configuration

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

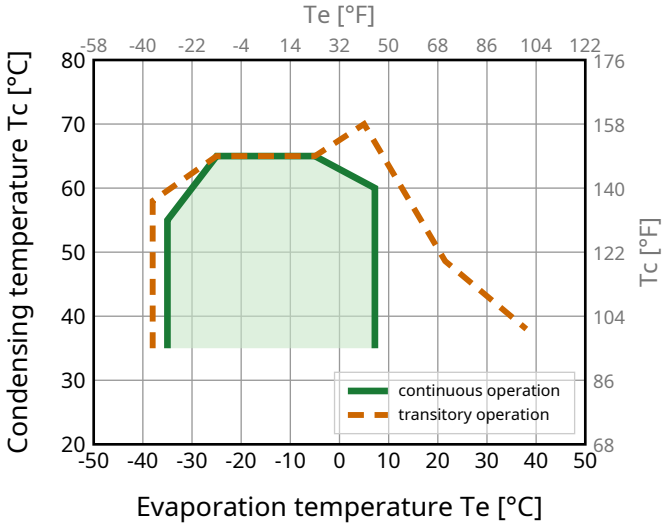
System Cooling
fan 3m/s

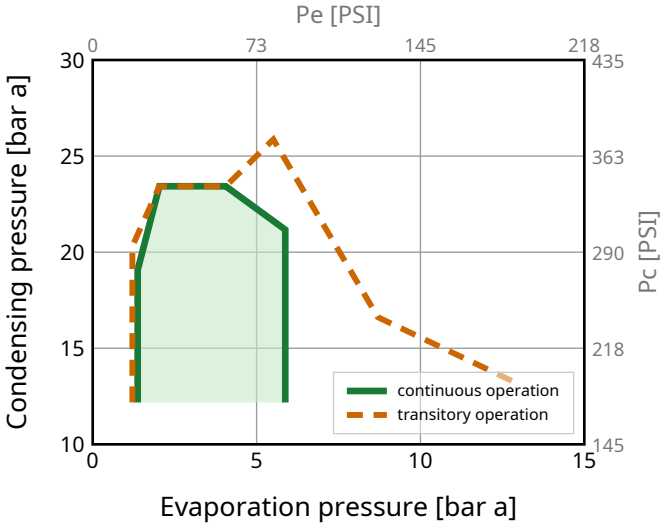
Electrical Accessories / Wiring Diagram



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

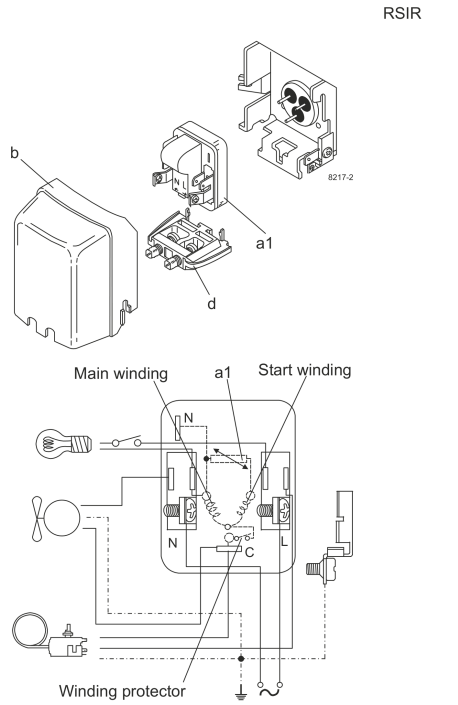
Configuration

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

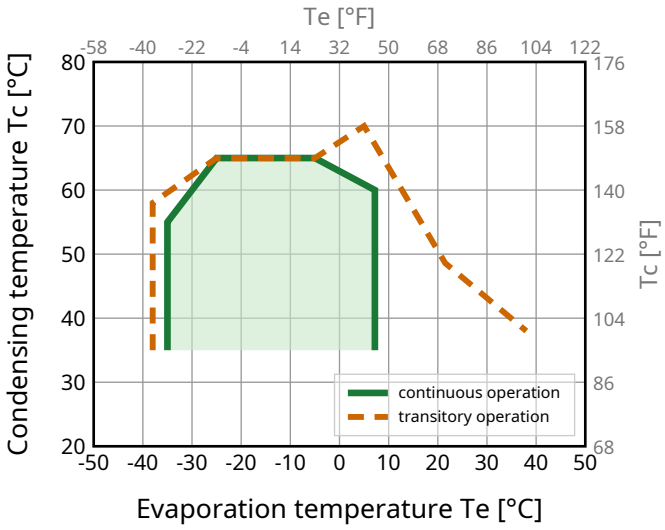
System Cooling
fan 3m/s

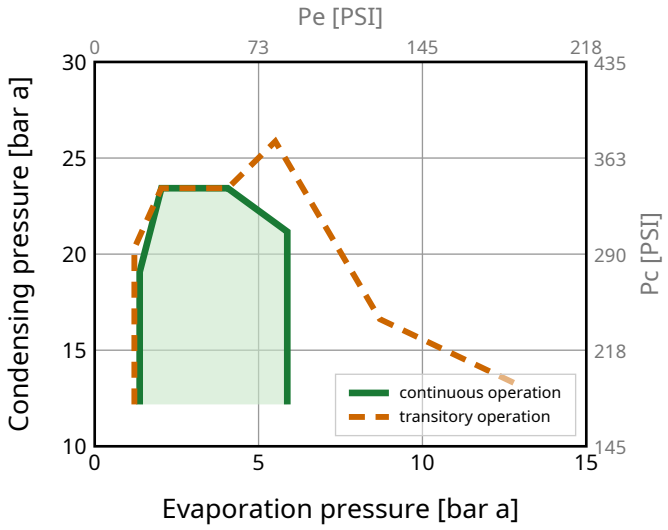
Electrical Accessories / Wiring Diagram



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

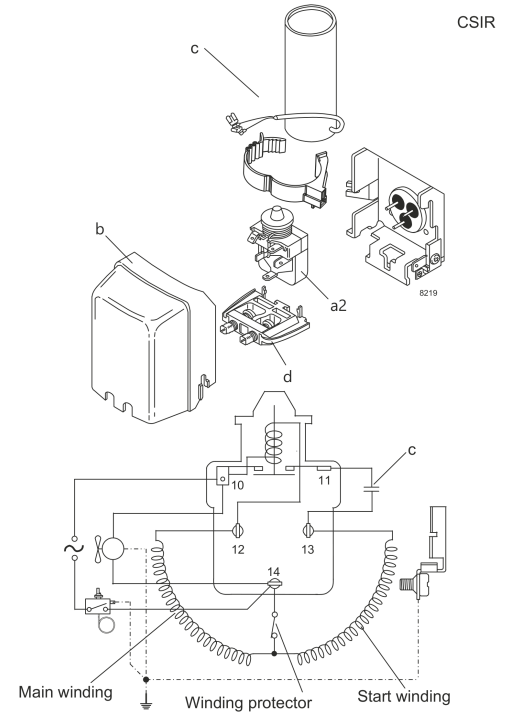
Configuration

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



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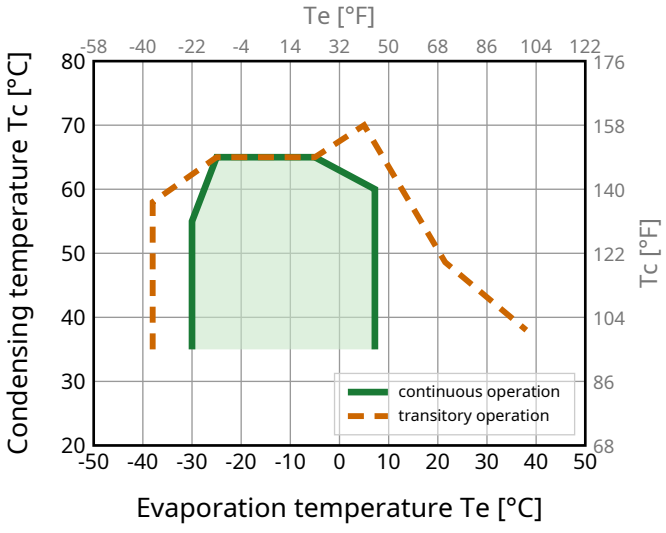
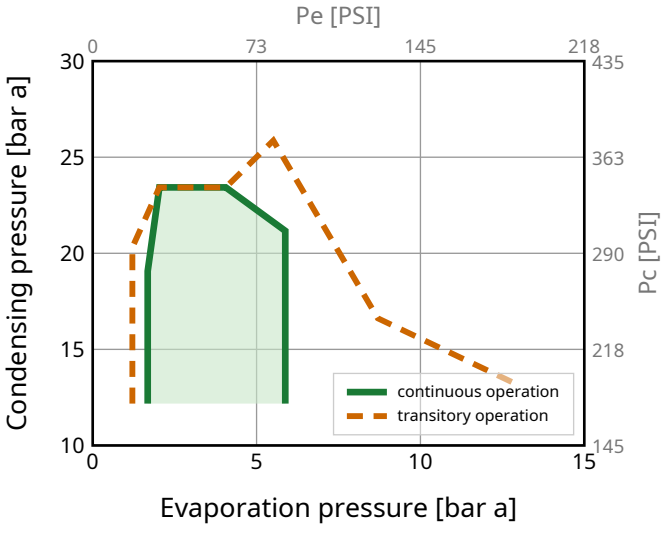
Components
a2 relay 117U7003
c start capacitor (60µF) 117U5014
b plastic cover 103N2011
d cord relief 103N1010

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

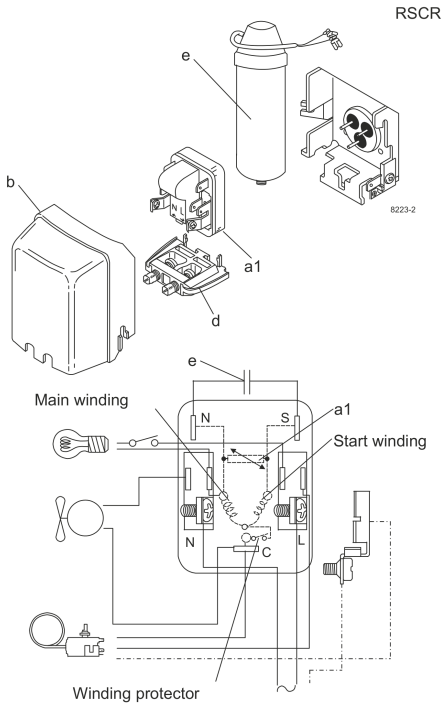
Configuration

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

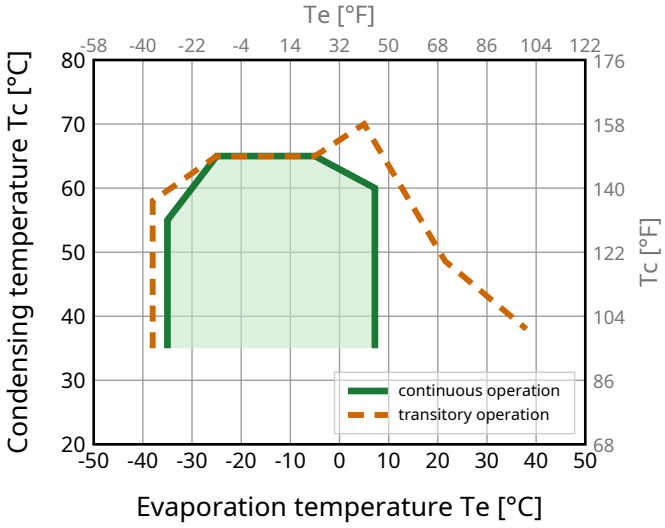
System Cooling
fan 3m/s

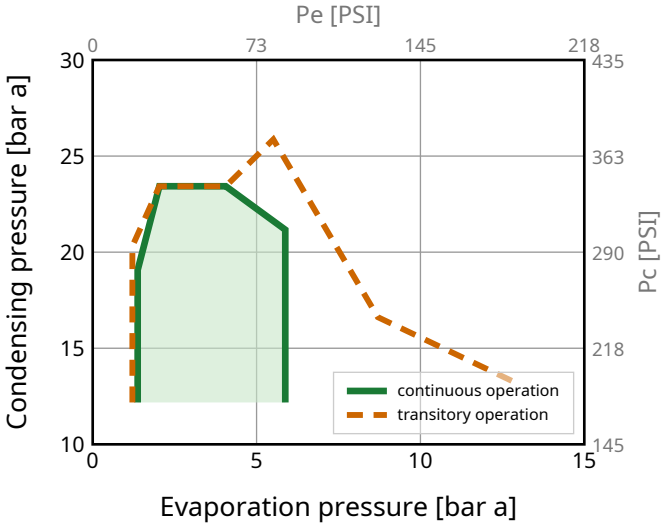
Electrical Accessories / Wiring Diagram



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

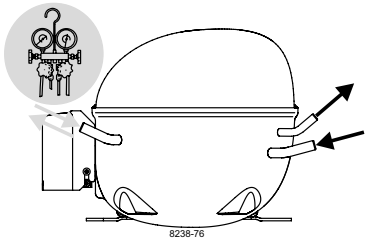
R290, 220 V/50 Hz, eRSCR, fan 3m/s

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



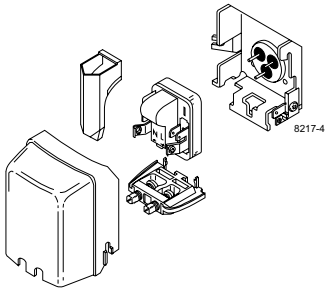
NL Compressors

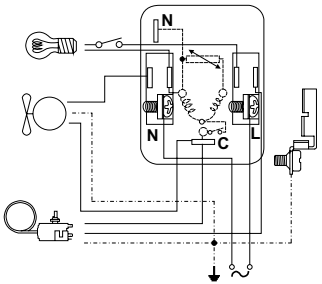
SECOP

Keep electrical equipment clear from oil, chemicals, and water

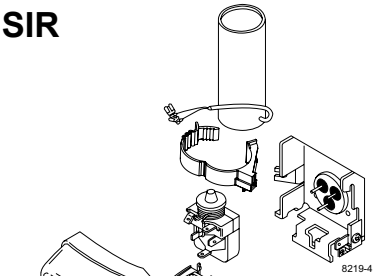
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

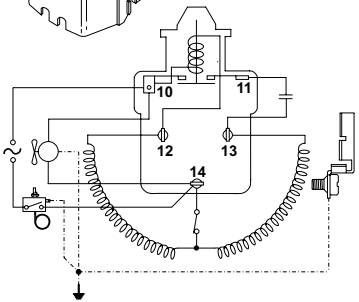
RSIR



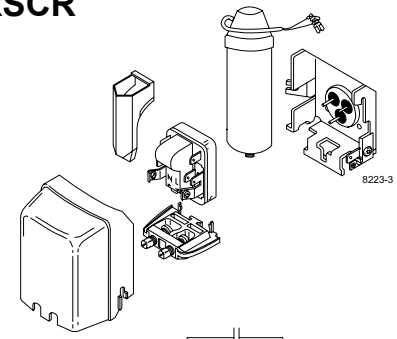


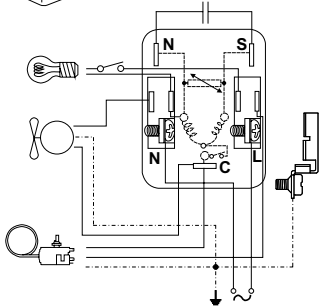
CSIR

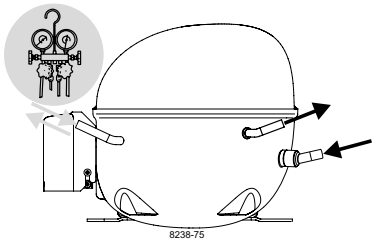




RSCR







NL Compressors

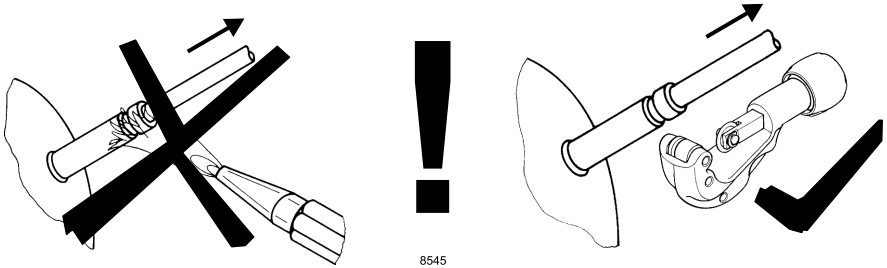
SECOP

Keep electrical equipment clear from oil, chemicals, and water

When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

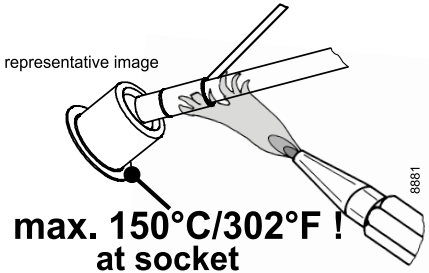
Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)



Brazing on Suction Connectors (Direct Intake)

representative image



! max. 150°C/302°F ! at socket

brazing solder: phosphor (LP7) or silver

Refer to Product Bulletin:
Brazing on Suction Connectors (Compressors with Direct Suction Intake)

Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. www.secop.com**