

Model
NLE8.8CN

Sales code:
105H6880

Compressor Data

Refrigerant(s)	R290
Refr. charge - tech. limit	400g / 14.11oz
Weight	10.90 kg / 24.03lbs
Displacement	8.76 cm3 / 0.53cu.in
Compressors on pallet	80



General – Configurations With NLE8.8CN

-	Conf. 1	Conf. 2	Conf. 3
Motor configuration	CSIR	eRSIR	eRSCR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz	220-240 V/50 Hz
Number of phases	1	1	1
Voltage range	198-254 V	198-254 V	198-254 V
Approvals	VDE, CCC	VDE, CCC	VDE, CCC
Starting torque	HST	LST	LST
Refrigerant	R290	R290	R290
Application	LBP+MBP	LBP+MBP	LBP+MBP
Hot gas defrost	OK	OK	OK
Long interval pull down	OK	OK	OK

Application Notes

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

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Compressor Design

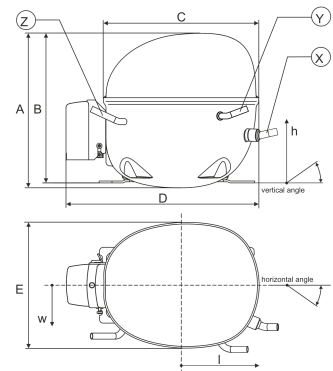
Oil type	POE	Winding resistance main	9.28 Ohm
Oil viscosity	32cSt	Winding resistance aux	11.64 Ohm
Oil quantity	260 / 8.79fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	2,360 cm ³ / 79.80fl.oz	Max. discharge temp.	120°C / 248°F
Motor protection	internal		

Compressor Dimensions

Housing

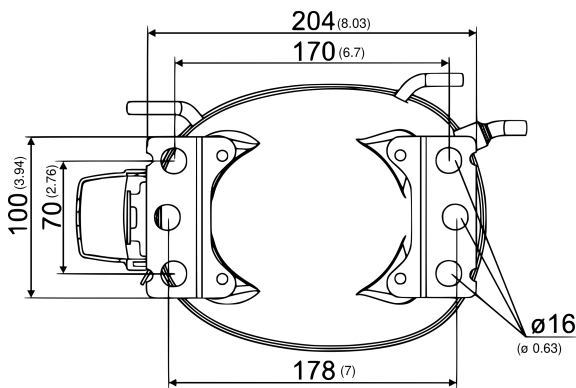
A Height	203mm / 7.99in
B Height	197mm / 7.76in
C Length shell	205mm / 8.07in
D Length w. cover	254mm / 10.00in
E Width	166mm / 6.54in

[Find 3D Model here](#)

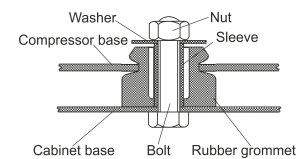


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	21°	155°
Position l/h/w [mm]	132/68.5/56.7 / 5.20/2.70/2.23in	94/101.7/81 / 3.70/4.00/3.19in	-109.3/94.3/72 / -4.30/3.71/2.83in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

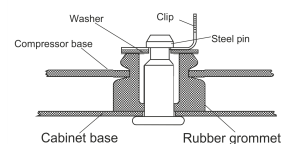
Mounting Accessories



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

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Configuration 1

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Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-254 V
Starting torque	HST
Approvals	VDE, CCC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	10.7 A
RLA (rated load amps / 1s/ U(N))	2.15 A
Cut in current (U(N))	15.9 A

Ambient/ machine room temperatures minimum /maximum

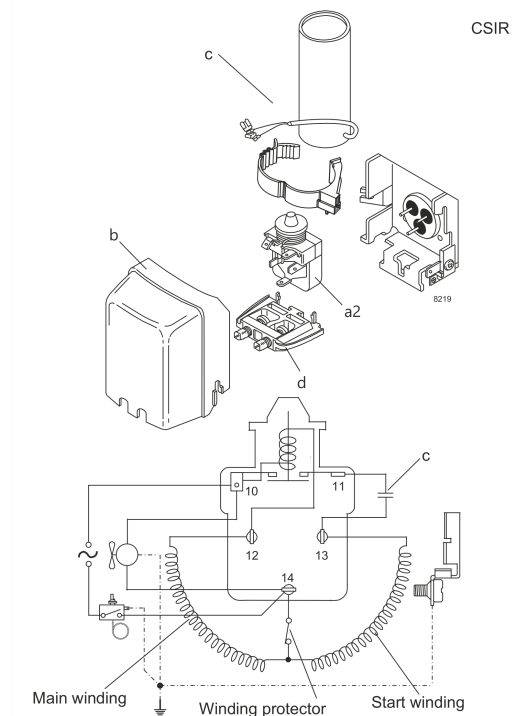
Ambient temperature range: 10 - 43°C / 50 - 109°F

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 117U7002

c start capacitor (80µF) 117U5015

b plastic cover 103N2010

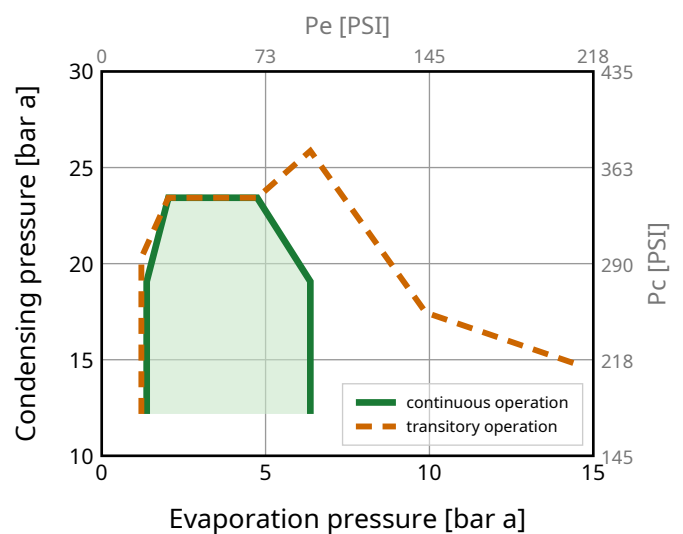
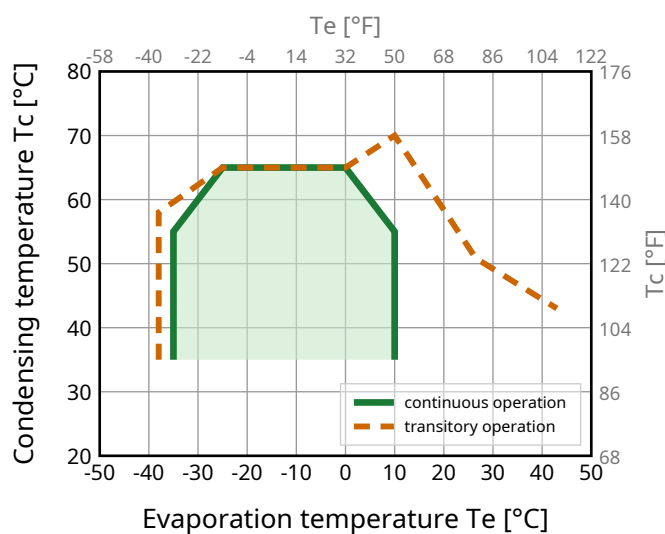
d cord relief 103N1010

Alternative components

c start capacitor (80µF) 117U5079

b plastic cover 103N2011

Operation Pressure Range



Model
NLE8.8CN

Configuration 1

Sales code:
105H6880

Standard Conditions

R290, 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	432	1474	372	1.57	5.36	275	1.76	4.39	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	322	1098	277	1.22	4.15	264	1.73	4.03	CECOMAF LBP
-35 -31	40 104	20 68	40 104	256	872	220	1.26	4.29	203	1.55	2.93	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	752	2567	647	1.98	6.75	380	2.15	8.61	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	599	2043	515	1.65	5.64	362	2.08	7.62	CECOMAF MBP
-10 14	45 113	20 68	45 113	671	2289	577	2.06	7.01	326	1.95	8.26	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	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	248	846	213	1.20	4.10	206	1.56	2.79
-30	-22	311	1060	267	1.35	4.60	230	1.63	3.51
-20	-4	473	1613	407	1.69	5.77	280	1.78	5.38
-10	14	697	2380	600	2.14	7.29	326	1.95	8.01
0	32	1001	3416	861	2.73	9.33	366	2.10	11.64
10	50	1400	4778	1204	3.56	12.14	394	2.21	16.56

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

-35	-31	189	645	163	0.94	3.21	201	1.54	2.36
-30	-22	252	858	216	1.08	3.70	232	1.63	3.14
-20	-4	402	1370	345	1.35	4.61	297	1.84	5.05
-10	14	599	2043	515	1.65	5.64	362	2.08	7.62
0	32	860	2933	739	2.04	6.95	422	2.31	11.08
10	50	1200	4095	1032	2.54	8.68	472	2.53	15.77

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Configuration 2

Sales code:
105H6880

Configuration

Motor configuration	eRSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-254 V
Starting torque	LST
Approvals	VDE, CCC
Starting device type	e-PTC
Run capacitor	-/-
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	10.7 A
RLA (rated load amps / 1s/ U(N))	2.15 A
Cut in current (U(N))	15.9 A

Ambient/ machine room temperatures minimum /maximum

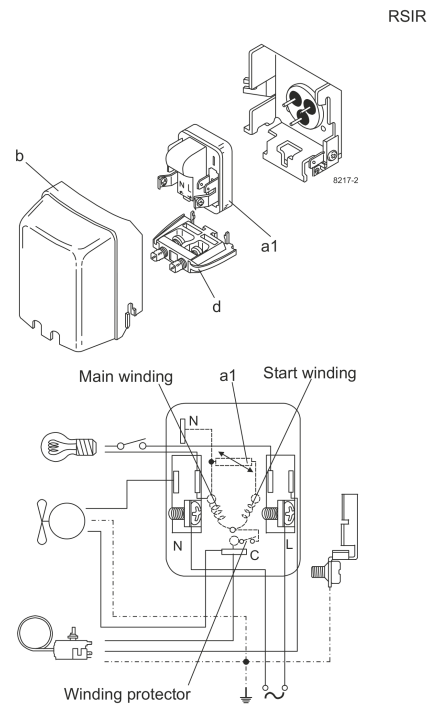
Ambient temperature range: 10 - 43°C / 50 - 109°F

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, 250hm, 4.8mm) 103N0050

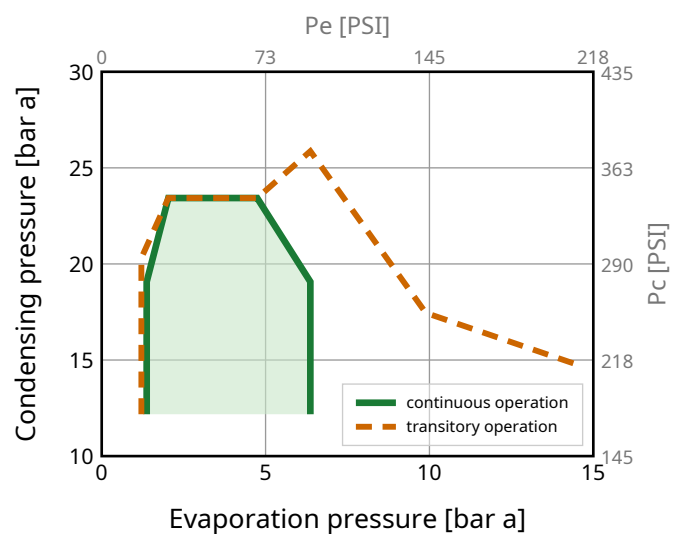
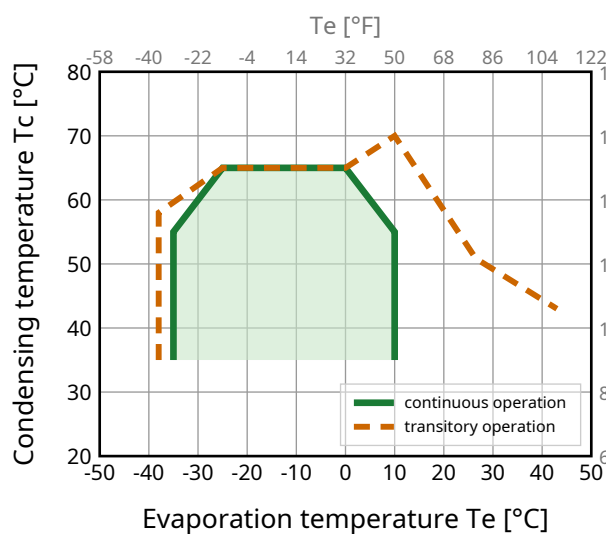
b plastic cover 103N2010

d cord relief 103N1010

Alternative components

b plastic cover 103N2011

Operation Pressure Range



Model
NLE8.8CN

Configuration 2

Sales code:
105H6880

Standard Conditions

R290, 220 V/50 Hz, eRSIR, 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	432	1474	372	1.57	5.36	275	1.76	4.39	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	322	1098	277	1.22	4.15	264	1.73	4.03	CECOMAF LBP
-35 -31	40 104	20 68	40 104	256	872	220	1.26	4.29	203	1.55	2.93	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	752	2567	647	1.98	6.75	380	2.15	8.61	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	599	2043	515	1.65	5.64	362	2.08	7.62	CECOMAF MBP
-10 14	45 113	20 68	45 113	671	2289	577	2.06	7.01	326	1.95	8.26	EN12900 MBP

Performance Tables

R290, 220 V/50 Hz, eRSIR, 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]
-35	-31	248	846	213	1.20	4.10	206	1.56	2.79
-30	-22	311	1060	267	1.35	4.60	230	1.63	3.51
-20	-4	473	1613	407	1.69	5.77	280	1.78	5.38
-10	14	697	2380	600	2.14	7.29	326	1.95	8.01
0	32	1001	3416	861	2.73	9.33	366	2.10	11.64
10	50	1400	4778	1204	3.56	12.14	394	2.21	16.56

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

-35	-31	189	645	163	0.94	3.21	201	1.54	2.36
-30	-22	252	858	216	1.08	3.70	232	1.63	3.14
-20	-4	402	1370	345	1.35	4.61	297	1.84	5.05
-10	14	599	2043	515	1.65	5.64	362	2.08	7.62
0	32	860	2933	739	2.04	6.95	422	2.31	11.08
10	50	1200	4095	1032	2.54	8.68	472	2.53	15.77

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Configuration 3

Sales code:
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Configuration

Motor configuration	eRSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R290
Application	LBP+MBP
Voltage range	198-254 V
Starting torque	LST
Approvals	VDE, CCC
Starting device type	e-PTC
Run capacitor	4 μF
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	10.7 A
RLA (rated load amps / 1s/ U(N))	2.15 A
Cut in current (U(N))	15.9 A

Ambient/ machine room temperatures minimum /maximum

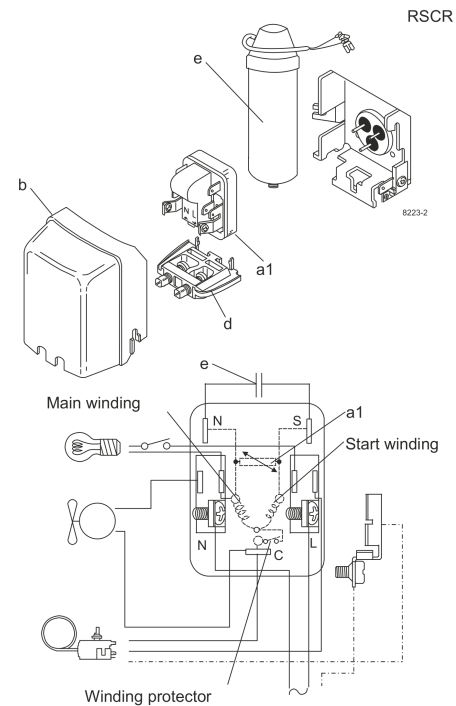
Ambient temperature range: 10 - 43°C / 50 - 109°F

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, 250hm, 4.8mm) 103N0050

e run capacitor (4 μ F, 4.8mm) 117-7119

b plastic cover 103N2010

d cord relief 103N1010

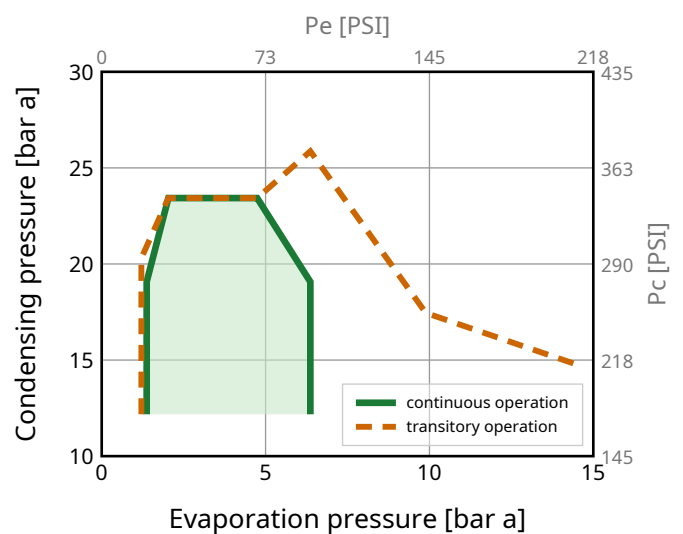
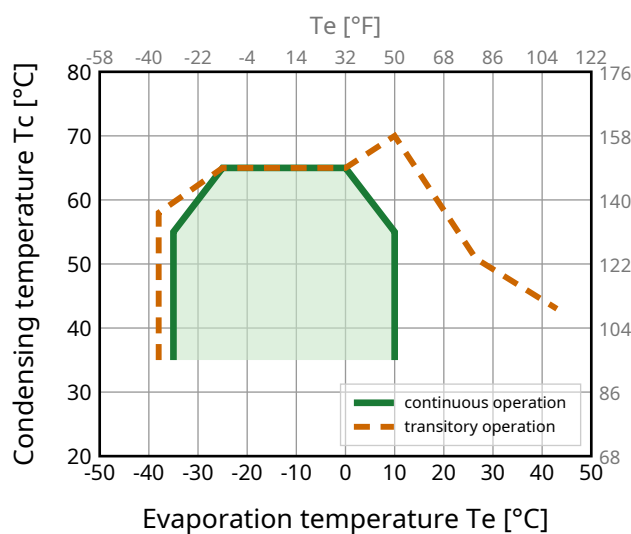
bracket for run capacitor 117-0300

screw M4x8mm 117-0301

Alternative components

b plastic cover 103N2011

Operation Pressure Range



Model

NLE8.8CN

Configuration 3

Sales code:

105H6880

Standard Conditions

R290, 220 V/50 Hz, eRSCR, 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	436	1489	375	1.65	5.64	264	1.46	4.43	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	325	1109	279	1.28	4.37	254	1.43	4.07	CECOMAF LBP
-35 -31	40 104	20 68	40 104	258	881	222	1.32	4.49	196	1.30	2.96	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	760	2592	653	2.08	7.10	365	1.89	8.70	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	605	2064	520	1.74	5.93	348	1.80	7.69	CECOMAF MBP
-10 14	45 113	20 68	45 113	678	2312	583	2.15	7.34	315	1.70	8.34	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	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	250	855	215	1.26	4.30	199	1.31	2.82
-30	-22	314	1070	270	1.42	4.83	222	1.36	3.54
-20	-4	477	1629	411	1.77	6.05	269	1.51	5.43
-10	14	704	2403	606	2.24	7.63	315	1.70	8.09
0	32	1011	3450	870	2.86	9.75	354	1.89	11.76
10	50	1414	4826	1216	3.73	12.71	380	2.02	16.73

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

-35	-31	191	652	164	0.99	3.37	194	1.26	2.38
-30	-22	254	867	219	1.14	3.89	223	1.33	3.17
-20	-4	406	1384	349	1.42	4.85	285	1.54	5.11
-10	14	605	2064	520	1.74	5.93	348	1.80	7.69
0	32	868	2962	747	2.14	7.32	405	2.07	11.20
10	50	1212	4136	1042	2.69	9.17	451	2.28	15.93