

Model
NLE8.8CNT

Sales code:
105H6088

Compressor Data

Refrigerant(s)	R290
Refr. charge - tech. limit	400g / 14.11oz
Weight	11.10 kg / 24.47lbs
Displacement	8.76 cm3 / 0.53cu.in
Compressors on pallet	80



General – Configurations With NLE8.8CNT

-	Conf. 1	Conf. 2	Conf. 3
Motor configuration	CSIR	eRSIR	eRSCR
Power supply (nominal)	208-230 V/60 Hz	208-230 V/60 Hz	208-230 V/60 Hz
Number of phases	1	1	1
Voltage range	187-253 V	187-253 V	187-253 V
Approvals	UL, CB	UL, CB	UL, CB
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

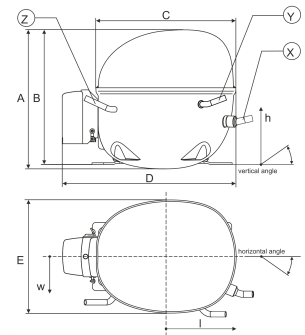
Oil type	POE	Winding resistance main	6.500 Ohm
Oil viscosity	32cSt	Winding resistance aux	7.50 Ohm
Oil quantity	268 / 9.06fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	2,360 cm³ / 79.80fl.oz	Max. discharge temp.	120°C / 248°F
Motor protection	internal		

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](#)



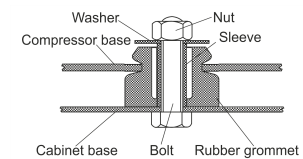
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	0°	0°	0°
Vertical angle ±2°	15°	21°	155°
Position l/h/w [mm]	132/68.5/56.7 / 5.20/2.70/2.23in	94/101.7/81 / 3.70/4.00/3.19in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

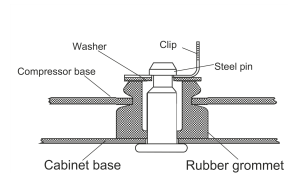


Dimensions in mm [in]

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

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Configuration 1

Sales code:
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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, CB
Starting device type	relay
Run capacitor	-/-
Start capacitor	100 µF
LRA (locked rotor amps / 4s/ U(N))	15.5 A
RLA (rated load amps / 1s/ U(N))	3 A
Cut in current (U(N))	15.5 A

Ambient/ machine room temperatures minimum /maximum

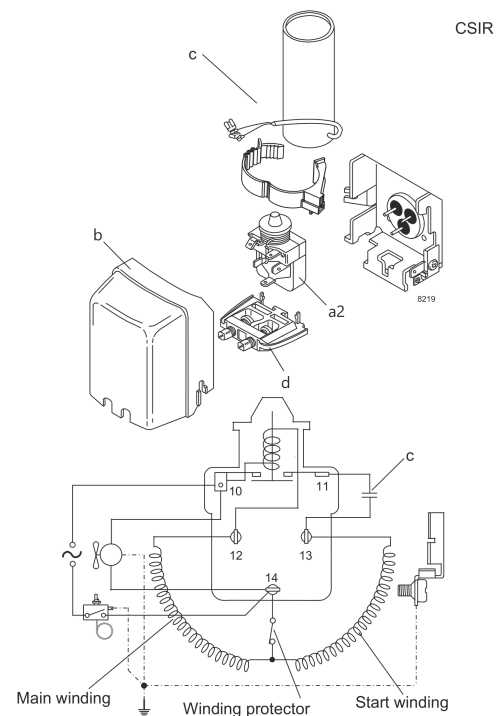
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components

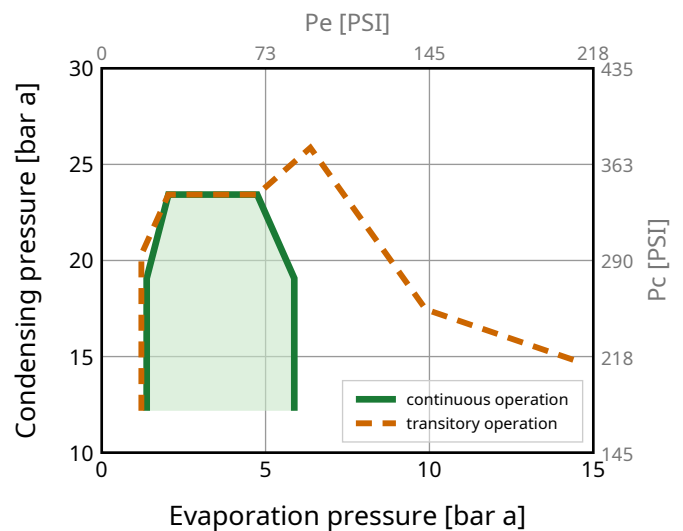
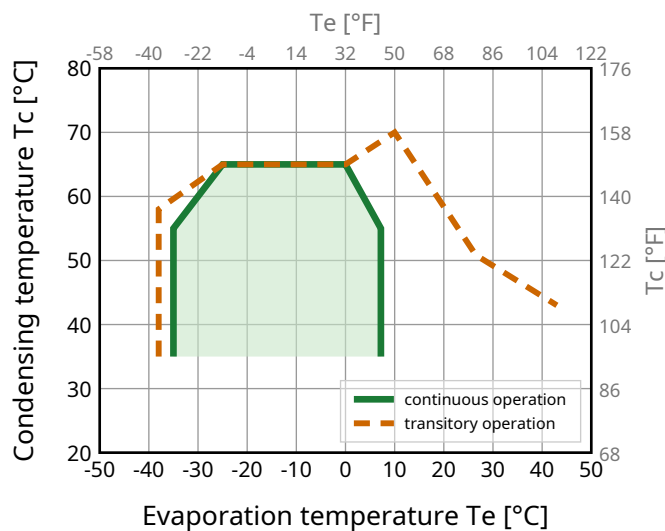
a2 relay 117U7022

c start capacitor (100µF, 82kOhm) 117U5381

b plastic cover 103N2011

d cord relief 103N1010

Operation Pressure Range



Model
NLE8.8CNT

Configuration 1

Sales code:
105H6088

Standard Conditions

R290, 230 V/60 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	$\dot{m}$	
[°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	513	1751	441	1.56	5.34	328	2.12	5.21	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	381	1300	328	1.20	4.11	316	2.08	4.78	CECOMAF LBP
-35 -31	40 104	20 68	40 104	300	1022	258	1.23	4.18	245	1.91	3.44	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	915	3121	787	2.05	6.99	447	2.52	10.47	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	728	2483	626	1.71	5.83	426	2.44	9.26	CECOMAF MBP
-10 14	45 113	20 68	45 113	808	2757	695	2.06	7.01	393	2.33	9.94	EN12900 MBP

Performance Tables

R290, 230 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	$\dot{m}$
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	285	973	245	1.15	3.93	247	1.91	3.21
-30	-22	360	1227	309	1.31	4.46	275	1.97	4.06
-20	-4	561	1914	482	1.68	5.72	334	2.14	6.38
-10	14	840	2866	722	2.14	7.29	393	2.33	9.64
0	32	1206	4113	1037	2.73	9.32	441	2.50	14.02
7.2	45	1528	5213	1314	3.29	11.22	465	2.58	17.97

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

-35	-31	222	756	191	0.89	3.04	249	1.91	2.76
-30	-22	295	1006	254	1.05	3.58	281	1.99	3.68
-20	-4	481	1641	414	1.36	4.65	353	2.20	6.05
-10	14	728	2483	626	1.71	5.83	426	2.44	9.26
0	32	1044	3563	898	2.12	7.25	491	2.68	13.46
7.2	45	1320	4505	1136	2.50	8.52	529	2.83	17.25

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Configuration 2

Sales code:
105H6088

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, CB
Starting device type	e-PTC
Run capacitor	-/-
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	15.5 A
RLA (rated load amps / 1s/ U(N))	3 A
Cut in current (U(N))	15.5 A

Ambient/ machine room temperatures minimum /maximum

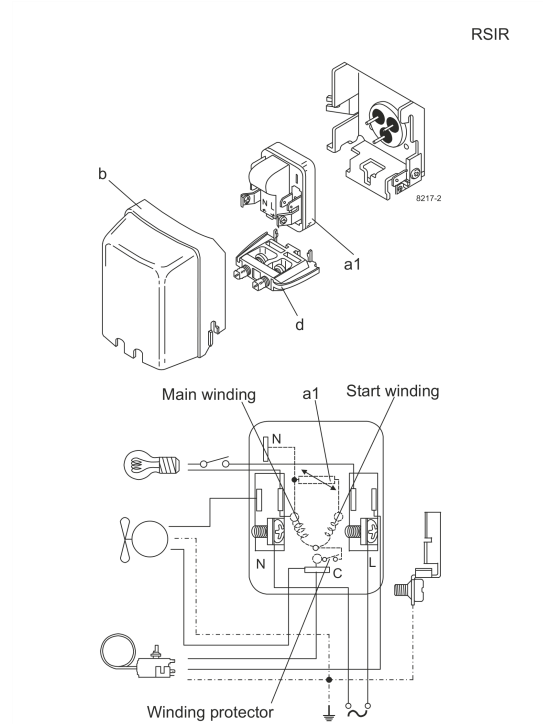
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



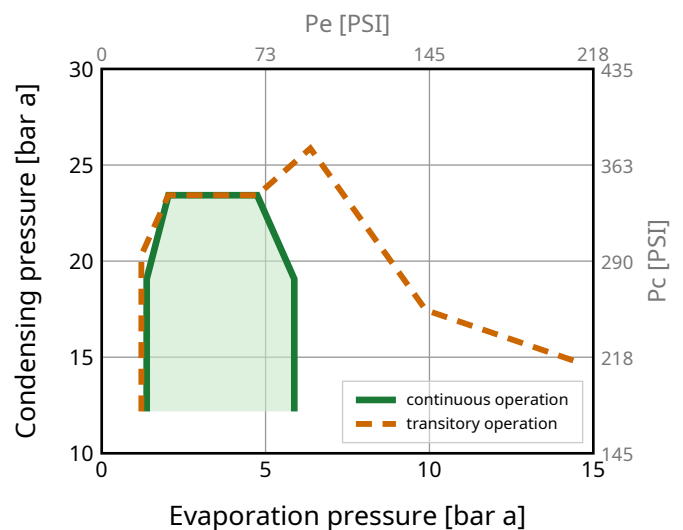
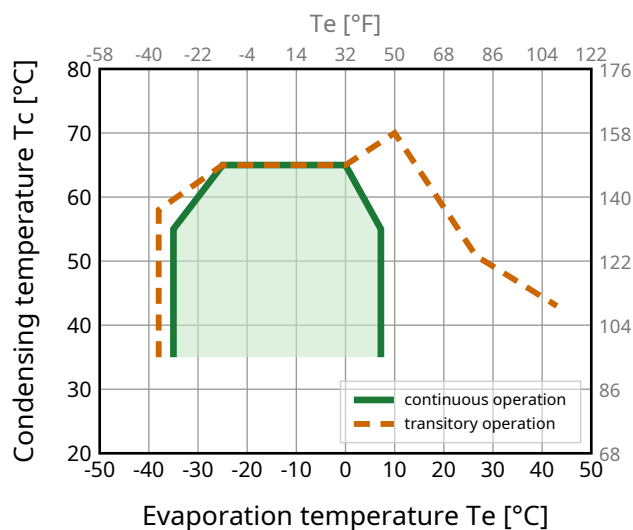
Components

a1 e-PTC starter (220V, 250hm, 4.8mm) 103N0050

b plastic cover 103N2011

d cord relief 103N1010

Operation Pressure Range



Model
NLE8.8CNT

Configuration 2

Sales code:
105H6088

Standard Conditions

R290, 230 V/60 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	513	1751	441	1.56	5.34	328	2.12	5.21	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	381	1300	328	1.20	4.11	316	2.08	4.78	CECOMAF LBP
-35 -31	40 104	20 68	40 104	300	1022	258	1.23	4.18	245	1.91	3.44	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	915	3121	787	2.05	6.99	447	2.52	10.47	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	728	2483	626	1.71	5.83	426	2.44	9.26	CECOMAF MBP
-10 14	45 113	20 68	45 113	808	2757	695	2.06	7.01	393	2.33	9.94	EN12900 MBP

Performance Tables

R290, 230 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	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	285	973	245	1.15	3.93	247	1.91	3.21
-30	-22	360	1227	309	1.31	4.46	275	1.97	4.06
-20	-4	561	1914	482	1.68	5.72	334	2.14	6.38
-10	14	840	2866	722	2.14	7.29	393	2.33	9.64
0	32	1206	4113	1037	2.73	9.32	441	2.50	14.02
7.2	45	1528	5213	1314	3.29	11.22	465	2.58	17.97

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

-35	-31	222	756	191	0.89	3.04	249	1.91	2.76
-30	-22	295	1006	254	1.05	3.58	281	1.99	3.68
-20	-4	481	1641	414	1.36	4.65	353	2.20	6.05
-10	14	728	2483	626	1.71	5.83	426	2.44	9.26
0	32	1044	3563	898	2.12	7.25	491	2.68	13.46
7.2	45	1320	4505	1136	2.50	8.52	529	2.83	17.25

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Configuration 3

Sales code:
105H6088

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, CB
Starting device type	e-PTC
Run capacitor	4 μF
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	15.5 A
RLA (rated load amps / 1s/ U(N))	3 A
Cut in current (U(N))	15.5 A

Ambient/ machine room temperatures minimum /maximum

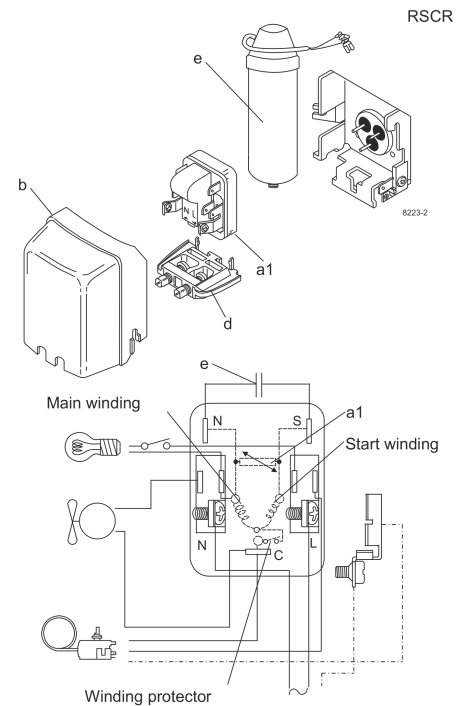
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

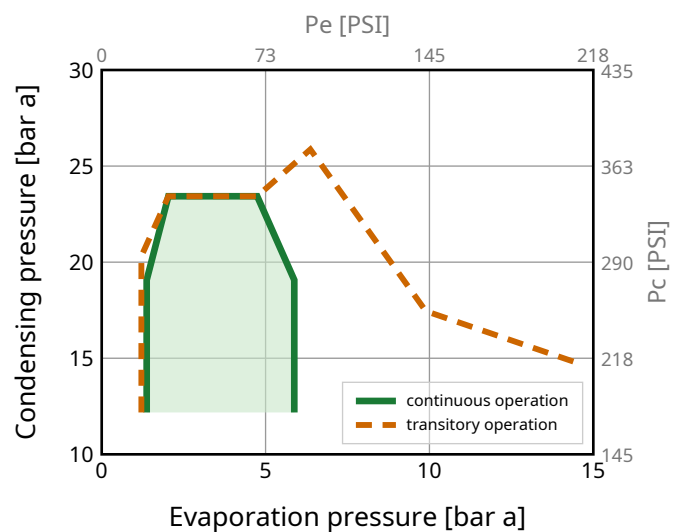
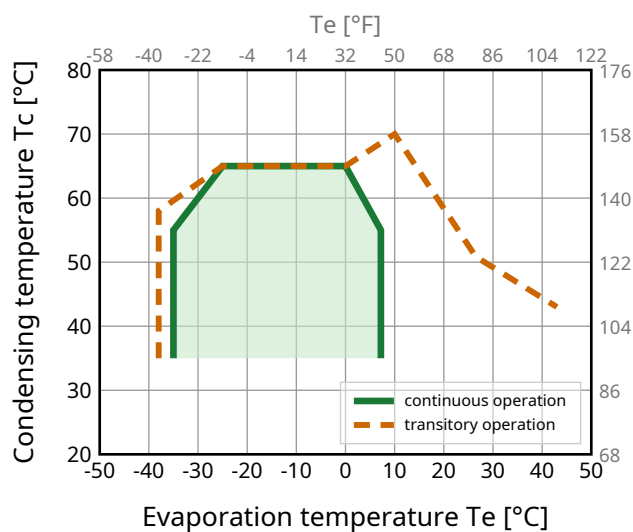
b plastic cover 103N2011

d cord relief 103N1010

bracket for run capacitor 117-0300

screw M4x8mm 117-0301

Operation Pressure Range



Model
NLE8.8CNT

Configuration 3

Sales code:
105H6088

Standard Conditions

R290, 230 V/60 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	514	1754	442	1.64	5.60	314	1.76	5.22	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	380	1295	326	1.26	4.29	302	1.73	4.76	CECOMAF LBP
-35 -31	40 104	20 68	40 104	302	1029	259	1.29	4.39	234	1.53	3.46	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	917	3129	789	2.16	7.37	425	2.17	10.50	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	731	2496	629	1.80	6.15	406	2.10	9.30	CECOMAF MBP
-10 14	45 113	20 68	45 113	805	2747	692	2.16	7.37	373	1.98	9.91	EN12900 MBP

Performance Tables

R290, 230 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	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	283	964	243	1.20	4.08	237	1.53	3.19
-30	-22	363	1238	312	1.38	4.70	264	1.61	4.10
-20	-4	565	1926	486	1.77	6.04	319	1.78	6.42
-10	14	837	2856	720	2.25	7.67	373	1.98	9.61
0	32	1200	4093	1032	2.87	9.78	419	2.15	13.95
7.2	45	1527	5210	1313	3.44	11.72	444	2.25	17.96

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

-35	-31	198	675	170	0.85	2.91	232	1.52	2.47
-30	-22	285	973	245	1.07	3.65	267	1.62	3.56
-20	-4	484	1651	416	1.43	4.89	337	1.85	6.09
-10	14	731	2496	629	1.80	6.15	406	2.10	9.30
0	32	1047	3572	900	2.25	7.66	466	2.34	13.50
7.2	45	1327	4527	1141	2.64	9.01	503	2.49	17.33