




# Invotech Scroll Compressor Specification

Comp Model	Water Heater Used Comp YW320C1-100
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## \*1 Compressor Basic Performance Specification

Model	YW320C1-100
Refrigerant	R410A
Cap(W) (a)	42670
Power Input (W) <sup>(a)</sup>	11170
Running Current (a) <sup>(a)</sup>	18.9
COP <sup>(a)</sup>	3.82
Rated Voltage (V)	380-420V
Phase-Hz	3 P - 50 HZ
Lowest Running Voltage (V)	342
Highest Running Voltage (V)	418
Lock Rotor Current <sup>(a)</sup>	121
Highest Running Current <sup>(b)</sup>	30.0
Motor Speed (R/Min) <sup>(c)</sup>	2900
Comp Weight With Oil (kg)	54
Oil	POE (Coefficient Of Viscosity 32)
Oil Charge (First Charge, L)	2.70
(Recharge, L)	2.60
Lowest Voltage Start (V) <sup>(d)</sup>	323
MOV (V) <sup>(e)</sup>	342
Motor Insulation Temperature	130°C
Resistance (Ω) (25 °c)	1.06( ± 10%)
Insulation And Voltage Resistance (V)	2000
Leakage Current (ma)	<5
Insulation Resistance(MΩ)	>20
Ground Resistance(Ω)	<0.1
Oil Circulation (%) <sup>(f)</sup>	Less Than 1%
Sound (Sound Power) <sup>(g)</sup>	75
Maximal Vib (mm, Peak-Peak) <sup>(h)</sup>	<0.12
Maximal Moisture (mg)	< 500
Maximal Impurity (mg)	< 100
Highest Running Pressure	
High Side (Mpa)	4.3
Low Side (Mpa)	2.0

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Instruction For Performance Specification Running Condition

- a) Test Condition: First Rated Running Point
- b) Test Condition: ET:15C, CT:70C, Running Voltage @ 90% Rated Voltage
- c) Test Condition: 380V, 50HZ, First Rated Running Point
- d) Discharge Pressure / Suction Pressure= Refrigerant Saturation Pressure @40C (Absolute Pressure) .
- e) Test Condition: Suction Pressure / Discharge Pressure = Refrigerant Saturation Pressure @15 C / Refrigerant Saturation Pressure @70C, Superheat 11.9C, Sub cooling 8.3C
- f) Mass Flow Under First Rated Point
- g) ARI Condition, Average Of Sound Power , Maximal Sound Power Is Less Than 5dba Added.
- h) Ari Condition, Maximal Displacement Under Normal Direction When Compressor Running.

\*2 Standard Configuration:

- Ground Screw
- Welded Suction Fitting And Discharge Fitting
- Square Terminal Box Cover
- Without Liquid Injection and Without Vapour Injection
- Without Oil Sight Glass
- Mount Kits(4 Sets)

\*3 Test Condition (380V, 50 HZ), Allowed Normal Specification Tolerance Is  $\pm 5\%$   
(Performance And Sound Test Neede20hrs Break In Running)

Seq	Parameter	First Rated Running Point
1	Evaporating T	5.0
2	Condensing T	55.0
3	Ambient T	35.0
4	Return Gas T	16.1
5	Superheat K	11.1
6	Subcooling K	8.3

\*4 Internal Protection Parts

- Internal protector Protection
- Internal Pressure Release Valve Protection  
Pressure Release Valve Open Range: 3.97--4.31Mpa

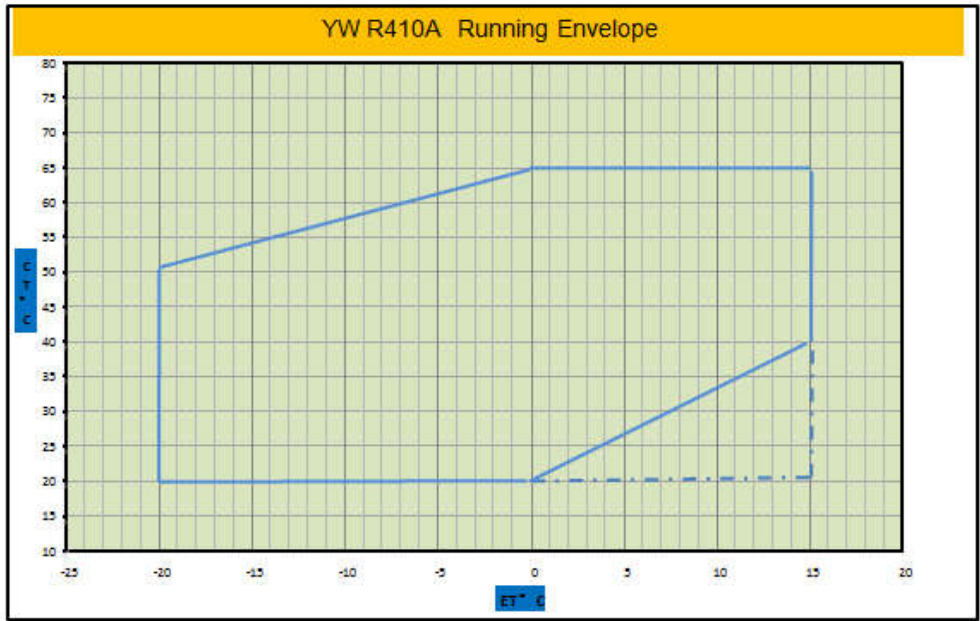


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## \*5 Compressor Running Envelop

In This Envelop, All Of The Test Condition Under The 11.1°C Superheat, 8.3°C Sub cooling.



## \*6 Compressor Performance Sheet

Invotech YW320C1-100 Scroll Compressor Performance Sheet									
	工况	-20	-15	-10	-5	0	5	10	15
Heating Cap (Cooling Cap+Power)	65					34026	39273	44713	50770
	55		21774	26569	32150	37123	42088	47852	53553
	50	19599	23778	27845	33174	38267	43411	49458	55207
	45	20726	25164	28921	34072	39395	44807	51211	57670
	40	21563	26029	29548	35010	40345	46151	52847	59800
	35	22588	26618	30166	35758	41404	47512	54616	62220
	25	22716	27208	30785	36505	42463	48874	56385	
Power	65					14068	13996	14133	14339
	55		10480	10758	11035	11146	11089	11198	11363
	50	9288	9413	9537	9831	9967	9916	10024	10177
	45	8416	8513	8741	8819	8982	9023	9100	9222
	40	7494	7691	7807	7954	8032	8079	8162	8280
	35	6706	6866	6969	7110	7190	7256	7357	7482
	25	6009	6040	6131	6266	6349	6433	6552	

Cap And Power Is Under 11.1C Superheat, 8.3Csubcooling

X-axis Ordinate Is Evaporating T (°C), Y-axis Ordinates Is Condensing T (°C)