
 INVOTECH	Invotech Scroll Compressor Specification
Comp Model	High Temperature Used Comp YW120J1-100

\*1 Compressor Basic Performance Specification

Model	YW120J1-100
Refrigerant	R134A
Cap(W) (a)	15530
Power Input (W) <sup>(a)</sup>	3530
Running Current (a) <sup>(a)</sup>	7.20
COP <sup>(a)</sup>	4.40
Rated Voltage (V)	380-420
Phase-Hz	3 P - 50 HZ
Lowest Running Voltage (V)	342
Highest Running Voltage (V)	418
Lock Rotor Current <sup>(a)</sup>	65.0
Highest Running Current <sup>(b)</sup>	12.3
Motor Speed (R/Min) <sup>(c)</sup>	2900
Comp Weight With Oil (kg)	33
Oil	POE (Coefficient Of Viscosity 32)
Oil Charge (First Charge, L)	1.40
(Recharge, L)	1.25
Lowest Voltage Start (V) <sup>(d)</sup>	323
MOV (V) <sup>(e)</sup>	342
Motor Insulation Temperature	130°C
Resistance (Ω) (25 °c)	1.9( ± 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>	74
Maximal Vib (mm, Peak-Peak) <sup>(h)</sup>	<0.10
Maximal Moisture (mg)	< 500
Maximal Impurity (mg)	< 100
Highest Running Pressure	
High Side (Mpa)	3.0
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:25C, CT:85C, 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 @25 C / Refrigerant Saturation Pressure @85C, 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 79dBA.
- 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	7.2
2	Condensing T	54.4
3	Ambient T	35.0
4	Return Gas T	18.3
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: 2.76--3.10Mpa

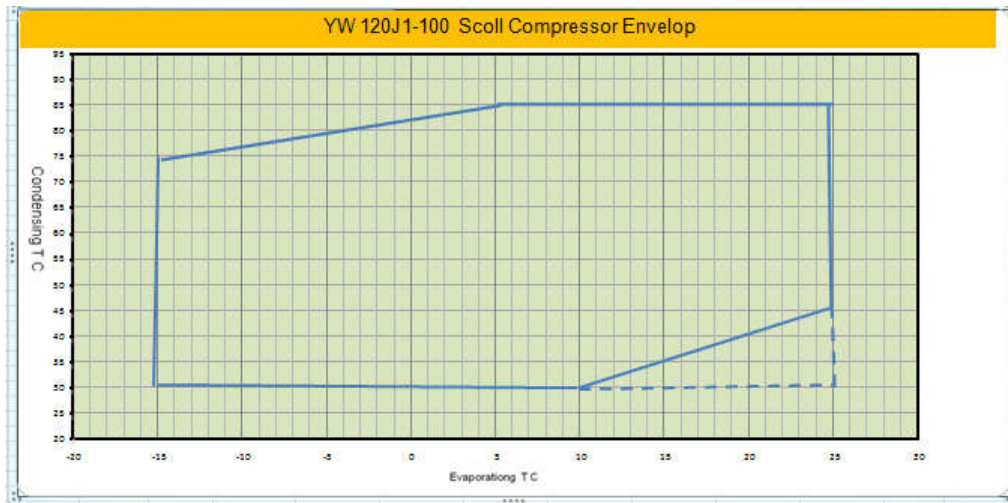


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## \*5 Compressor Running Envelop

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



## \*6 Compressor Performance Sheet

Invotech Scroll YW120J1 Performance Sheet										
		-15	-10	-5	0	5	10	15	20	25
Cap	85			9620	10277	10970	13950	16930	18992	20984
	80			9674	10639	11634	14457	17281	19493	21658
	70	6839	8190	9781	11363	12960	15472	17983	20495	23006
	60	7071	7688	9887	12087	14286	16486	18685	21497	24290
	50	7317	8547	10691	12808	15259	16902	20191	23119	26015
	40	7555	9558	11388	13213	16207	19100	21957	24809	27660
	30	7790	9675	11564	13445	16616	19788	22959	26110	29262
Power	85			4598	4912	5231	5550	5870	6189	6412
	80			4386	4667	4953	5239	5524	5810	6032
	70	3385	3744	3961	4178	4397	4615	4834	5053	5272
	60	2986	3385	3536	3688	3840	3992	4144	4296	4448
	50	2587	2851	3110	3196	3282	3368	3454	3755	3973
	40	2185	2472	2583	2696	2817	2937	3124	3310	3496
	30	1779	1918	2057	2196	2351	2506	2661	2797	2933

Cap And Power Is Under 11.1C Superheat, 8.3Csubcooling

Blue Area is transition only.