 INVOTECH	Invotech Scroll Compressor Specification
Comp Model	Water Heater Used Comp YW132J1-100

Specification		Notes
Standard model	YW132J1-100(Preliminary)	Base model
Extended model		
Extended model		


Revision record			
Version	Reviser	Description	Date

\_\_\_\_\_  
Checked

\_\_\_\_\_  
Date


\_\_\_\_\_  
Approved

\_\_\_\_\_  
Date

 INVOTECH	Invotech Scroll Compressor Specification
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\*1 Compressor Basic Performance Specification

Model	YW132J1-100
Refrigerant	R134a
Heating Cap(W) (a)	17415
Power Input (W) <sup>(a)</sup>	4045
Running Current (a) <sup>(a)</sup>	8.7
COP <sup>(a)</sup>	4.30
Rated Voltage (V)	380V
Phase-Hz	3 相 - 50 HZ
Lowest Running Voltage (V)	342
Highest Running Voltage (V)	418
Lock Rotor Current <sup>(a)</sup>	85
Highest Running Current <sup>(b)</sup>	17.1
Motor Speed (R/Min) <sup>(c)</sup>	2900
Comp Weight With Oil (kg)	38
Oil	POE (Coefficient Of Viscosity 32)
Oil Charge (First Charge, L)	1.60
(Recharge, L)	1.45
Lowest Voltage Start (V) <sup>(d)</sup>	323
MOV (V) <sup>(e)</sup>	342
Motor Insulation Temperature	130 (B 级)
Resistance (Ω) (25 °c)	1.8 ( ± 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>	<0.10
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 80
- 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 Neede48hrs 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

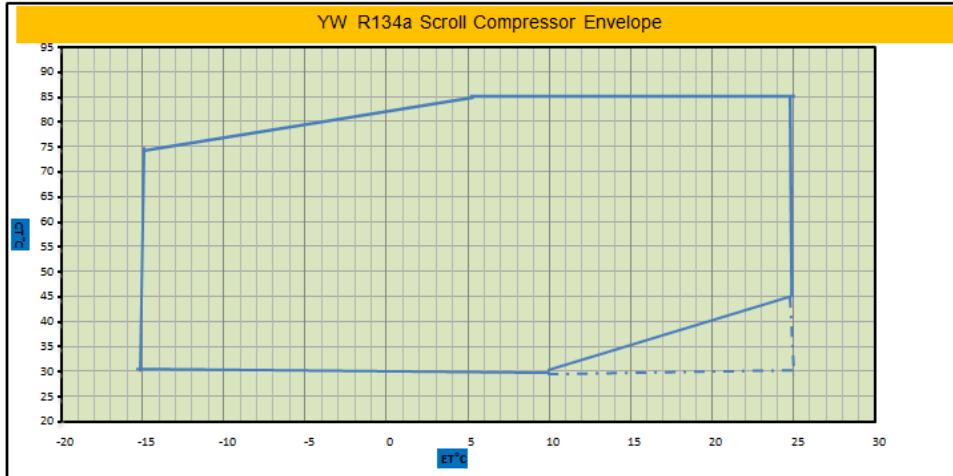
- Internal protector Protection
- Internal Pressure Release Valve Protection  
Pressure Release Valve Open Range: 2.76--3.10Mpa



# Invotech Scroll Compressor Specification

Comp Model	Water Heater Used Comp YW132J1-100
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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 YW132J1-100 Performance Sheet										
		-15	-10	-5	0	5	10	15	20	25
Heating Cap (Cooling Cap+Power )	85					19022	20967	23150	25625	28448
	80			15150	16800	18601	20607	22874	25457	28412
	75	11671	13166	14725	16401	18251	20330	22693	25396	28493
	70	11292	12779	14351	16066	17977	20141	22612	25446	28698
	65	10946	12435	14034	15798	17782	20042	22634	25611	29030
	60	10636	12140	13777	15602	17672	20040	22763	25896	29493
	55	10367	11898	13584	15483	17649	20138	23004	26304	30092
	50	10144	11712	13461	15445	17719	20340	23362	26840	30831
	45	9969	11588	13410	15491	17886	20651	23840	27509	31714
	40	9849	11529	13437	15627	18154	21074	24443	28315	
35	9786	11540	13545	15856	18527	21615	25175			
30	9785	11626	13740	16183	19010	22278				
Power	85					7137	7295	7499	7775	8151
	80			6122	6294	6459	6644	6877	7187	7601
	75	4988	5266	5484	5670	5852	6058	6316	6653	7099
	70	4422	4701	4923	5117	5310	5531	5808	6167	6638
	65	3938	4212	4433	4629	4828	5058	5347	5723	6213
	60	3531	3793	4007	4199	4398	4631	4927	5313	5818
	55	3192	3438	3638	3821	4013	4244	4541	4932	5444
	50	2917	3141	3322	3489	3669	3891	4183	4573	5088
	45	2699	2894	3050	3196	3358	3566	3847	4230	4741
	40	2532	2692	2818	2936	3075	3263	3527	3896	
35	2408	2529	2617	2703	2812	2974	3216			
30	2323	2397	2443	2490	2564	2694				

Cap And Power Is Under 11.1C Superheat, 8.3Csubcooling  
Blue Area is transition only.

 <b>INVOTECH</b>	<b>Invotech Scroll Compressor Specification</b>
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\*7 Notes

- 1) The compressor should not be used to be operated under vacuum, compress air, run without load or reverse;
- 2) The compressor should not be opened in the atmosphere for more than 15 minutes;
- 3) The compressor continuous running time should be more than 10minutes, the duration between two start-ups shall exceed three minutes, the compressor should not start/stop frequently to avoiding oil being pumped together with the refrigerant;
- 4) Before starting, discharge pressure – suction pressure  $\leq 0.3\text{Mpa}$ ;
- 5) The running voltage shall be within  $\pm 10\%$  of the rated voltage;
- 6) In low temperature application, because lots of refrigerant may migrate to the compressor cavity, deposit at the bottom of the compressor, it may cause the problem of lubrication and oil return, it is better to install the crankshaft heating device;
- 7) The system should set basic protection of pressure, temperature, over-current, phase-loss and oil return device etc.
- 8) Do not put the compressor horizontally or put it upside down.



# Invotech Scroll Compressor Specification

Comp Model

Water Heater Used Comp YW132J1-100

## \*8. Compressor Outline Dimensions

