
 INVOTECH	Invotech Scroll Compressor Specification
Comp Model	Water Heater Used Comp YW285T1-100

\*1 Compressor Basic Performance Specification

Model	YW285T1-100
Refrigerant	R407C
Cap(W) (a)	36829
Power Input (W) <sup>(a)</sup>	9469
Running Current (a) <sup>(a)</sup>	16.6
COP <sup>(a)</sup>	3.89
Rated Voltage (V)	380V
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>	24.7
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)	2500
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>	77
Maximal Vib (mm, Peak-Peak) <sup>(h)</sup>	<0.12
Maximal Moisture (mg)	< 500
Maximal Impurity (mg)	< 100
Highest Running Pressure	
High Side (Mpa)	3.0
Low Side (Mpa)	2.0

 INVOTECH	Invotech Scroll Compressor Specification
Comp Model	Water Heater Used Comp YW285T1-100

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: 2.76--3.10Mpa



# Invotech Scroll Compressor Specification

Comp Model	Water Heater Used Comp YW285T1-100
------------	------------------------------------

## \*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 Compressor YW285T1-100 Performance Sheet									
		-20	-15	-10	-5	0	5	10	15
Heating Cap (Cooling Cap +Power)	70					29466	33652	38322	43431
	65				26516	30117	34237	38874	44127
	55		20203	23334	26874	30824	35312	40402	46159
	50	17530	20262	23458	27118	31240	35925	41237	47240
	45	17669	20379	23607	27406	31696	36574	42105	48353
	35	17745	20561	24003	28071	32688	37944	43902	50628
	25	18015	20873	24464	28790	33720	39339	45710	52900
Power	70					12028	12352	12617	13017
	65				11635	11677	11695	11689	11963
	55		9143	9198	9230	9237	9271	9348	9668
	50	7951	8064	8152	8216	8251	8316	8427	8769
	45	7033	7162	7266	7346	7403	7494	7636	7996
	35	5563	5706	5825	5920	6008	6136	6321	6708
	25	4379	4519	4635	4726	4823	4965	5174	5570

Cap And Power Is Under 11.1C Superheat, 8.3Csubcooling

Blue Area is transition only.