

Invotech Scroll Compressor Specification

Comp Model

Air-condition Used Comp YH307T1-100

^{*1} Compressor Basic Performance Specification

Model	YH307T1-100			
Refrigerant	R407C			
Cap (W) ^(a)	29470			
Displacement(m³/h)	29.1			
Power Input (W) (a)	8910			
Running Current (A) (a)	15.6			
Coefficient Of Performance (COP) (a)	3.31			
Rated Voltage (V)	380V			
Phase/Hertz	3P/50Hz			
Lowest Running Voltage (V)	342			
Highest Running Voltage (V)	418			
Lock Rotor Current (A)	121			
Highest Running Current (A) (b)	22.5			
Motor Speed(R/Min) ^(c)	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) ^(d)	323			
MOV (V) ^(e)	342			
Motor Insulation Temperature	130°C			
Resistance @ 25 °C Ambient (Ω)	1.06(± 10%)			
Insulation Voltage (V)	2000			
Leakage Current (mA)	<5			
Insulation Resistance (mΩ)	>20			
Ground Resistance (Ω)	<0.1			
Oil Circulation (%) ^(f)	Less Than 1%			
Sound (Sound Power) (g)	75			
Maximum Vib (mm, Peak-Peak) ^(h)	<0.12			
Maximum Moisture (mg)	< 500			
Maximum Impurity (mg)	< 100			
Highest Running Pressure				
High Side (Mpa)	3.0			
Low Side (Mpa)	2.0			

Version: 001

Revised Date: 2014-10-08



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NOTES:

- a) Test Condition: First Rated Running Point
- b) Test Condition: ET 11.9℃, CT 65.5℃, Running @ 90% Rated Voltage
- c) Test Condition: 380V, 50Hz, First Rated Running Point
- d) Discharge Pressure / Suction Pressure = Refrigerant Saturation Pressure
 @40℃ (Absolute Pressure)
- e) Test Condition: Suction Pressure / Discharge Pressure = Refrigerant Saturation Pressure @11.9 ℃ / Refrigerant Saturation Pressure @65.5℃, Superheat 11.9℃, Sub cooling 8.3℃
- f) Mass Flow Under First Rated Point
- g) Running @ First Rated Running Point, Average Of Sound Power, Maximum Sound Power Is Less Than 80 dB(A)
- h) Running @ First Rated Running Point, Maximum Displacement Under Normal Direction When Compressor Running

*2 Standard Configuration:

- Ground Screw
- Welding Suction Fitting And Discharge Fitting
- Square Terminal Box Cover
- Without Liquid Injection Nor Vapour Injection
- Without Oil Sight Glass
- Mount Kits (4 Sets)
- *3 Test Condition (380V, 50 HZ), Capacity And COP Is No Less Than 95% Normal Specification, Power And Current Is No More Than 105% Normal Specification (Performance And Sound Test Need 24hrs Break In Running At Max Load Running Condition (e))

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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 Motor Protector
- Internal Pressure Release Valve



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Pressure Release Valve Open Range: 2.76--3.10Mpa

*5 Compressor Running Envelope



Compressor Running @ 11.1 °C Superheat, 8.3 °C Subcooling

*6 Compressor Performance Data Sheet

Invotech Scroll YH307T1-100 Compressor Performance Sheet									
	工况	-20	-15	-10	-5	0	5	10	
Cap ₩	65					21482	23310	28193	
	55			15424	18453	22624	27307	32396	
	50		13323	16136	19835	24171	29045	34093	
	45	11419	13885	17253	21267	25718	30717	35748	
	40	11875	14796	18310	22384	27034	31983	37444	
	35	12636	15714	19405	23633	28218	33240	39140	
	25	13786	17038	20464	25073	29550	35177	40630	
Power W	65					11237	11334	11431	
	55			8907	8978	9013	9092	9153	
	50		7826	7940	8046	8081	8204	8274	
	45	6955	7008	7140	7175	7263	7307	7544	
	40	6181	6331	6366	6454	6560	6568	6823	
	35	5461	5584	5742	5839	5886	6006	6209	
	25	4678	4836	5030	5144	5364	5390	5460	

Cap. And Power Data in Grey-green Area Is Tested @ 11.1 $^{\circ}$ C Superheat, 8.3 $^{\circ}$ C subcooling X-axis Ordinate Is Evaporating T ($^{\circ}$ C), Y-axis Ordinates Is Condensing T ($^{\circ}$ C)

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