

# InvoTech Scroll Compressor Specifications

Model

YH140T1-100

<sup>\*1</sup> Compressor Basic Performance Specifications

Model	YH140T1-100			
Refrigerant	R407C			
Cap (W) <sup>(a)</sup>	13440			
Power Input (W) <sup>(a)</sup>	4130			
Running Current (A) (a)	8.0			
Coefficient Of Performance (COP) (a)	3.25			
Rated Voltage (V)	380V			
Phase/Hertz	3P/50Hz			
Lowest Running Voltage (V)	342			
Highest Running Voltage (V)	418			
Lock Rotor Current (A)	60.0			
Highest Running Current (A) (b)	11.1			
Motor Speed(R/Min) <sup>(c)</sup>	2900			
Comp Weight With Oil (Kg)	31			
Oil	3GS (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 @ 25 ℃ Ambient (Ω)	2.45( ± 10%)			
Insulation Voltage (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>	69			
Maximum Vib (mm, Peak-Peak) <sup>(h)</sup>	<0.10			
Maximum Moisture (mg)	< 500			
Maximum Impurity (mg)	< 100			
Highest Running Pressure				
High Side (Mpa)	3.0			
Low Side (Mpa)	2.0			

Version: 002

Revised Date: 2013-12-06



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### NOTES:

- a) Test Condition: First Rated Running Point
- b) Test Condition: ET 11.9  $^{\circ}$ C, CT 65.5  $^{\circ}$ C, Running @ 90% Rated Voltage
- c) Test Condition: 380V, 50Hz, First Rated Running Point
- d) Discharge Pressure / Suction Pressure = Refrigerant Saturation Pressure
  @40°C (Absolute Pressure)
- e) Test Condition: Suction Pressure / Discharge Pressure = Refrigerant Saturation Pressure @11.9 °C / Refrigerant Saturation Pressure @65.5 °C, Superheat 11.9 °C, Sub cooling 8.3 °C
- f) Mass Flow Under First Rated Point
- g) Running @ First Rated Running Point, Average Of Sound Power, Maximum Sound Power Is Less Than 74 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))

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	Sub cooling K	8.3			

#### \*4 Internal Protection Parts

- Internal Motor Protector
- Internal Pressure Release Valve

Pressure Release Valve Open Range: 2.76--3.10Mpa

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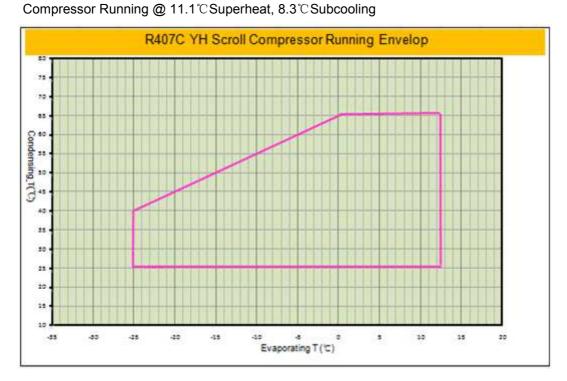


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# \*5 Compressor Running Envelope



## \*6 Compressor Performance Data Sheet

Invotech YH140T1-100 Performance Sheet										
	工况	-20	-15	-10	-5	0	5	10		
Capacity W	65					8922	11227	13553		
	55			7473	8735	10418	12450	15187		
	50		5889	7700	9216	10987	13317	15947		
	45	5223	6264	7871	9711	11570	13920	16693		
	40	5406	6640	8362	10201	12144	14504	17364		
	35	5588	7015	8853	10691	12719	15088	18034		
	25	5771	7391	9011	11597	13748	16104	17703		
Power W	65					4997	4822	4823		
	55			4026	4055	4237	4155	4093		
	50		3558	3652	3807	3971	3850	3820		
	45	3189	3244	3454	3587	3682	3521	3527		
	40	2962	3057	3240	3364	3432	3304	3335		
	35	2735	2869	3026	3141	3182	3086	3142		
	25	2286	2447	2627	2768	2848	2762	2709		

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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