Technical Parameters

Thermal Vacuum Test Chamber – KMT Series

TSM series temperature shock test chamber can provide high temperature and low temperature test spaces, the test piece is transferred in the two spaces through the basket, to achieve the thermal shock test of rapid temperature change between the upper and lower limit temperatures.

Model		810	812	1010	1012	1214	1216
Tank	mm	1000×1000	1000×1200	1200×1000	1200×1200	1400×1400	1400×1600
Heat Sink	mm	800×1000	800×1200	1000×1000	1000×1200	1200×1400	1200×1600
Test Piece Mounting Base Plate (L x W)	mm	650×600	800×600	650×600	800×600	1000×800	1200×800
Base Plate Mounting Position	mm	Below centerline 200±2	Below centerline 200±2	Below centerline 250±2	Below centerline 250±2	Below centerline 300±2	Below centerline 300±2
Solar spectral absorption coefficient on the inner surface of the heat sink	αs≥0.93						
Emissivity of the inner surface of the heat sink	εH≥0.87						
Temperature Performance Parameters							
Heat Sink Temperature Range	℃	-70~150					
Base Plate Temperature Range	℃	-70~150					
Heat Sink Average Temperature Change Rate	℃/min	≥2					
Base Plate Average Temperature Change Rate	℃/min	≥2					
Heat Sink Temperature Uniformity	℃	±2			±3		
Base Plate Temperature Uniformity	℃	±2			±3		
Pressure Performance Parameters							
Ultimate Pressure	Pa	≤5×10-5					
Working Pressure	Pa	≤1.3×10-3					
Main Pump Pumping Time	h	5					
Simulate Loads	kg	10		15		20	
Simulate Load hape	cm	40×35×40	60×35×40	60×35×40	75×35×40	70×45×50	85×45×50
Main Pump		Low temperature pump					
Oil Pump		High and low temperature magnetic pump					
Backing Pump		Rotary vane pump + roots pump					
Refrigeration Method		Mechanical cascade refrigeration (liquid nitrogen-assisted refrigeration)					
Power Supply		AC380V 50Hz TN-S					
Heating Power	kW	18				30	
Power	kW	50	55	60	60	75	88
Noise	dB(A)	≤75					
Cooling Method		Water-cooled					
Total Weight	kg	1950	2250	2400	2800	3200	3800

Note: Parameters are subject to change upon request.

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