QW Series
Rapid-Rate Thermal Cycle Test Chamber

Description:

Environmental simulation chamber for tests requiring quick changes of temperature.

With our rapid-rate thermal cycle test chambers, it' s possible to create fast and precise temperature transitions that help assess how products handle sudden shifts in climate. The combination of efficient cooling technology and responsive controls supports testing routines that demand both speed and accuracy.

Features:

• Supports rapid temperature shifts, achieving cooling rates up to 15°C per minute with mechanical refrigeration alone. When combined with liquid nitrogen assistance, cooling speeds can reach 30°C per minute.

• Provides precise control, maintaining temperature fluctuation within ±0.5°C and deviation better than ±1.5°C throughout the test cycle.

Our temperature and humidity test chamber models comply with the following standards:

EN IEC 61000-6-2:2019 EN 61010-1:2010+A1:2019

EN IEC 61000-6-4:2019

* For air-cooled models, performance specifications are based on an ambient temperature of +25°C and relative humidity of ≤85% measured with the chamber empty.
For water-cooled models, reference conditions are an ambient temperature between +15°C and +35°C, relative humidity of ≤85%, and cooling water temperature of ≤+28°C, also measured without test samples inside the chamber.

Model with humidity----QW without humidity---QT		QW/T0270W/A5T QW/T0270W/A10T QW/T0270W/A15T	QW/T0570W/A5T QW/T0570W10T QW/T0570W15T	QW/T1070W2T QW/T1070W5T QW/T1070W10T QW/T1070W15T	QW/T2470W2T QW/T2470W5T QW/T2470W10T QW/T2470W15T	QW/T12065W5 QW/T12065W10
Chamber volume (m³)		0.21	0.5	1.0	2.36	12.6
Perfo-rmance	Temperature range	-70℃ ~ +150℃ (180℃)				-65℃ ~ +125℃ (180℃)
	Humidity deviation (only humidity type)	(20 ~ 98)%RH/(20 ~ 85)℃				
	Temperature fluctuation	≤0.5℃				≤0.6℃
	Temperature deviation	±1.5℃				±2.0℃
	Relative humidity deviation (only models with humidity control)	±3.0%RH(humidity>75%RH), ±5.0%RH (humidity≤75%RH)				
	Temperature change rate (mechanical cooling)	2/5/10/15℃/min (average under standard load condition over the range of -55℃ to +70℃/85℃ measured at air inlet)				
	Standard load	12.5kg aluminum ingot	15kg aluminum ingot	50kg aluminum ingot	100kg aluminum ingot	200kg steel
Internal dimensions (mm)	W	600	800	1000	1300	2000
	H	700	900	1000	1300	2100
	D	500	700	1000	1400	3000
Power supply		380V (three phase four wire + protective grounding wire)				
Rated power (KW)		W5:19 / A5:20 W10:22 / A10:25 W15:25 / A15:28	W5:25 / A5:25 W10:36 / W15:47	W2:27 / W5:43 W10:56/W15:77	W2:37 / W5:56 W10:85/W15:115	W5:105/W10:160
Condensing method		Air-cooled/water-cooled (Models ending with "A" indicate air-cooled units,while those ending with "W" are water-cooled. For example:QT0270A5 is an air-cooled model,and QT0270W5 is a water-cooled model.)				
Chamber door		Single hinged door				Double hinged doors