



Fully Automatic Freeze-thaw Testing Machine

The simulated product is subjected to high-low temperature alternating durable deformation test on the pattern in a specific temperature environment. During the test, the air, spraying medium (water) and sample temperature in the test box are automatically subjected to temperature alternating cycle test with reference to the preset time-temperature relationship axis to conduct limit assessment experiments to verify the deformation performance of the tested pattern.

The equipment is composed of air temperature, spray medium temperature and electric control device, which can meet the needs of other tasks in the coverage of temperature and mobility of the equipment while taking into account the conventional heat and humidity test.

Function & Meet the standard

In the control aspect, the intelligent control scheme of PLC+ touch screen man-machine interface is adopted for management, the man-machine exchange is friendly, and the ergonomic design of the operation position is reasonable. During the operation of the equipment, the cabin temperature and water tank temperature parameters are monitored in real time and the data are saved. Historical data and historical curves of various parameters during operation can be queried and viewed in real time, and can also be downloaded and saved to a computer through mobile storage equipment for data analysis, viewing and archiving.

The design of thermal system is reasonable, the balance heat source is directly adjusted by compression heat and electric heating of refrigeration system, and the cooling mode of refrigeration unit is air-cooled, which has high reliability, no need for customers to provide the cooling tower and its complicated maintenance work in the later period, and its performance is stable and economical.

The wide temperature/humidity setting range in the balance box meets the detection requirements of various customers' styles, and widens the diversified needs of users in pattern pretreatment.

The equipment can meet the requirements of ISO 10545-12:1995 "Test Methods for Ceramic Tiles Part 12: Determination of Frost Resistance" .



Technical Specification

Name	Fully Automatic Freeze-thaw Testing Machine
Type	XDTH-020WAF
Studio Size	inside measurement: W800×H800×D800mm Internal product: 512L Outer Dimensions: W1000×H1000×D1650mm
Temperature range in the box	-5℃（customized-20℃）~+35℃
Water tank temperature range	3℃~RT
Instrument resolution	Temperature: 0.1℃; Humidity: 0.1%RH;
Temperature fluctuation	≤±0.5℃
Temperature uniformity	≤±2℃
Temperature fluctuation of spray medium	≤±1.5℃
Air cooling rate	<20℃/h
Box bearing	>200Kg
Sample placement mode	Vertical vertical placement
Sample interval	>50mm
Sample loading quantity	10 blocks
Noise	≤65db; There will be no resonance sound between the box door and the equipment door;

