

# ELECTRONIC CHIP TEMPERATURE CONTROL UNIT

## ENVISYS TECHNOLOGIES

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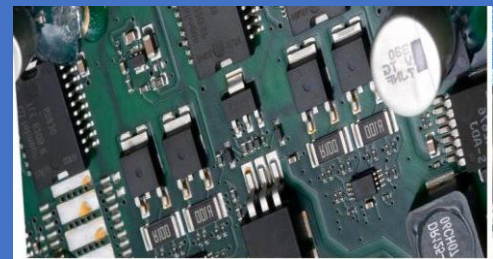
AN ISO 9001-2015 CERTIFIED

## ELECTRONIC CHIP - TEMPERATURE CONTROL UNIT

A micro cooling unit designed to simulate the various working temperature conditions on the electronic chip board

### Stated Power Cooling Capabilities:

- Cool power: 30°C @ 500W, -40°C @ 200W
- Temperature range: -40°C to 30°C
- Temperature accuracy: +/- 2-3°C
- Cooling: Two stage air cooled refrigeration to achieve -40°C
- Single Set Point PID Controller
- 8-Channel Datalogger for Pressure and compressor temperature.



## Space Saving & Cost Competitive ....

### FEATURES:

- Precise Temperature Accuracies with Reliable Test Results
- Temperature Limits: -40 °C to 30 °C
- Temperature Accuracies:  $\pm 2-3^{\circ}\text{C}$
- Temperature Rate of Change: 20-25 deg /min (Non-linear)
- Maintenance Free Access to The System
- Self-Sufficient System
- Compact with small footprints suitable for any space constraint laboratories
- Low decibel system
- Suitable for testing electronic chips / devices
- Environmental friendly refrigerants
- Efficient heating
- Microprocessor based single set point PID temperature controller with data logging
- Flexible hose up to 2.5-3.0m
- Interchangeable heads according to chip size.
- Inbuilt electrical control panel with switchgear system

### REFRIGERATION SYSTEM:

Mechanical Cascade refrigeration system with hermetic compressor/s.

Hermetic compressor/s are mounted on vibration-free compression spring/rubber bush tightened with desired torque level.

Eco friendly Non-CFC refrigerants of R-404a & R-23 air-cooled refrigeration system (**Optional water cooled**)



Specimen dimensions: Variable from W 35MM X D 35MM to 60 x 60mm  
Cooling head dimensions: Interchangeable according to dimensions.  
Number of specimens: 1 Numbers tested at a time.



### TEMPERATURE LIMITS

Temperature	-40 °C to 30 °C
Rate of Change	20-25 K /MIN (NON-LINEAR)
<b>Accuracy</b>	<b><math>\pm 2.0^{\circ}\text{C}</math></b>

# GENERAL SPECIFICATION - RANGE – SCOPE - STANDARDS

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## System General

Maximum Temperature +40°C

Minimum Temperature -40°C

Temperature Accuracy < 2.0° C

Typical Transition Rates 25°C to 0°C in, < 2-3 minutes

Temperature Sensor T-type thermocouple

DB Rating 63-65 d BA

## System Requirements

Electrical/230/240 VAC ±10%  
50/60 Hz, single phase, 12A Max.



Ambient Temperature 5°C to 25 °C (40 to 77°F)

Ambient Humidity 20% to 95% RH

### Mechanical Dimensions

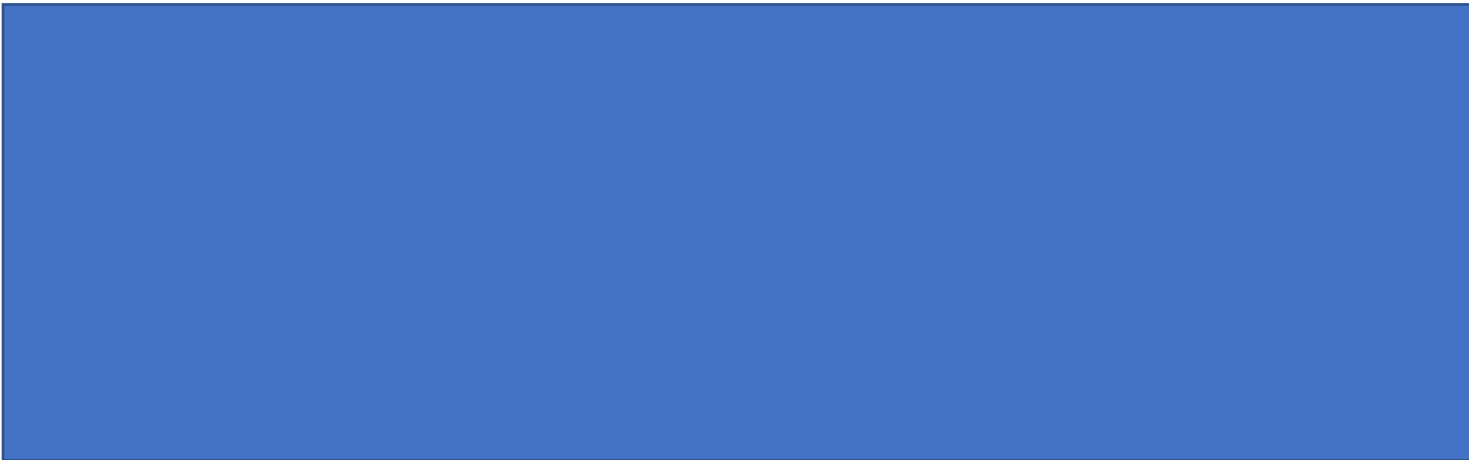
System Dimensions: L700mm x W 500 mm x H 650mm Approx.

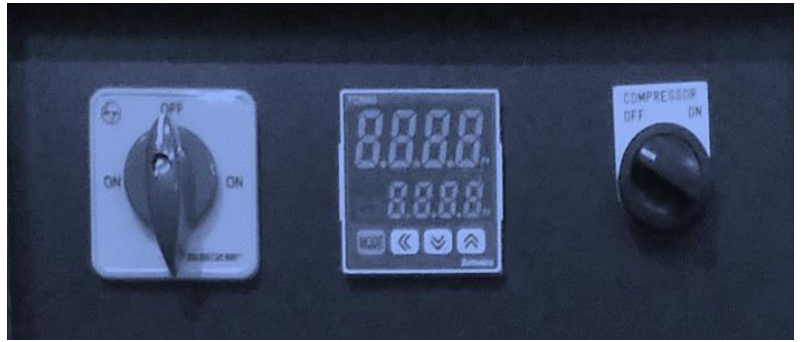
System Weight: 95-100 KG

Thermal Head (mm): Interchangeable

Thermal Head Hose: 2.5 -3.0 meter.

## THREE AXIS VIEW-----





- Hot and Cold temperature and humidity control system with either Single Set Point or Dual Loop controllers of Autonics make as per customer choice and preference
- Microprocessor based PID controller with precise temperature and humidity control
- Heating will be controlled through zero-crossing relay control system



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