

ECO Cool is an economical high performance TCU, to maintain the temperature of high power devices.
-5C@400W, 5C@500W, 12C@600W, 20C@700W, 30C@800W

ECO Cool
-30°C - 200°C
0°C @ 400W



ECO Cool - Designed with extreme thermal forcing power and flexibility in mind, allowing for customization to test a wide range of very high power device sizes, packages and interfaces, whether socketed or soldered to the board.

With state of the art design and technology, ECO Cool stimulates the DUT to the desired temperature, precisely and consistently by direct contact through a powerful thermal head.

Powerful stand-alone thermal control unit, features:

- Cooling power 0°C @ 400W (Tcase steady state).
- Ramp rate up to 75°C/Min.
- Temperature stability: $\pm 0.3^\circ\text{C}$.
- Temperature range -30°C to 200°C.
- Minor temperature overshooting at high power spikes.
- Fast recovery time at high power spikes.
- Replace LN2, thermostream, chillers and chambers.
- Fully automated testing.

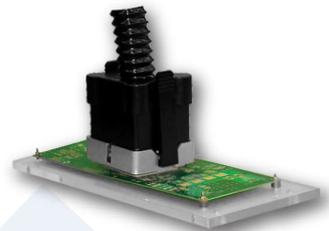
ECO Cool with 'Clip-On Actuator' & Z-axis integrated:

- Robust and small footprint.
- Setup is very fast and convenient using the clip-on connect.
- Fast and simple to attach and detach the thermal head using.
- Controllable and consistent force on DUT.
- Optimum contact and thermal conductivity.
- Adaptable for any soldered and socketed devices.
- Ideal for bench testing, ATE and SLT.

ECO Cool is a stand-alone, real plug&play unit:

- AC Input: 208-240 VAC; 1~ 50Hz /60Hz 10A.
- CDA or nitrogen for condensation free operation during cold testing.

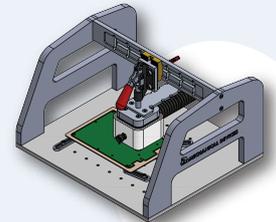
Axial actuator head



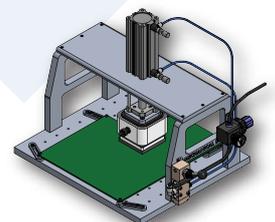
Right angle actuator head

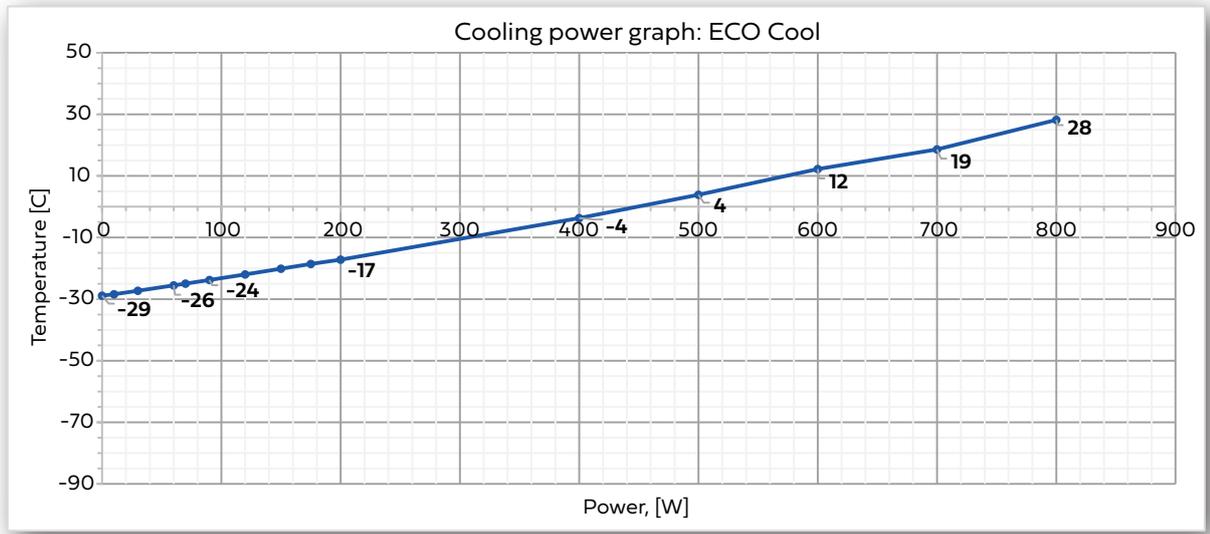


Toggle clamp unit



Manual actuator





Product features:

- Fast time to stable temperature (Tcase)
- Short stabilizing soak time and overshooting
- Temperature stability: $\pm 0.3^{\circ}\text{C}$
- Condensation FREE at cold test
- Maintenance FREE system
- Fully programmable: available drivers LABVIEW, MATLAB, VB, C++, C#, Python and others
- PID overshooting control
- Stand-alone plug and play system
- No external chiller or compressed air is required
- Software controlled transition rates eliminate thermal shock
- Suitable for testing any socketed and soldered DUT up to 100mm size
- Environmentally friendly operation
- Min and Max temperature safety lock
- Thermal stream/chamber/chiller replacement
- High Reliability Testing
- Replace ATE, SLT and Bench

System general

Temperature range (Tcase)	-30°C to +200°C
Temperature accuracy	$\pm 0.1^{\circ}\text{C}$
Temp ramp rate	Up to 75°C/min (controllable)
Temperature sensor	Type K thermocouple ports, Thermal diode K-type thermocouple
DUT dimensions	Up to 100 mm

Mechanical dimensions

System enclosure mm / inch	(L) 495 mm x (W) 450 mm x (H) 310 mm (fits 19" rack cabinet), 7U
System weight	~40 kg
Thermal head size (WxHxD)	Square type: 73mm x 73mm x 40mm
Thermal head weight	~1.5kg
Thermal head hose	~2-meter (6.5ft)

Facilities Requirements

Electrical	208-240VAC, 50/60Hz, 10A
Operating temp.	10°C to 27°C (non-condensing)
Plug	NEMA L6-20/30
Compressed dry air *	0.1-0.2[MPa] dry air / dry Nitrogen

Data / Communications

Ethernet TCP/IP	RJ-45
Touch screen display	7" LCD