

EXCEL-1000

eldrotec

-40°C @ 900W
-70°C to 170°C

High-Power Active Thermal Forcing System

Precision Temperature Control for Next-Gen Semiconductor Validation



-70°C to +170°C



±0.1°C



-40°C @ 900W



Precision Control



Ramping Control



Advanced 7" Touch HMI

The **EXCEL-1000** is specifically engineered for Active Temperature Forcing of high-power devices, such as CPUs, GPUs, and AI accelerators. Unlike standard cooling solutions, our system maintains a rock-solid, stable temperature setpoint even when the DUT operates at peak electrical loads.

- **Massive Load Handling:** Built for the AI era, capable of stabilizing devices with an internal power dissipation of up to 1000W.
- **Active Power Compensation:** Specifically optimized to counteract massive heat loads, maintaining precise stability of ±0.1°C.
- **Extreme Temperature Range:** Reliable performance from -70°C to +170°C.
- **Superior Cooling Efficiency:** Achieving -40°C @ 900W for the most demanding thermal characterization processes.

Performance Analysis & Technical Specifications

Operating

Temperature range	-70°C to +170°C
Temperature stability	±0.1°C
Transition rates	Up to 75°C/min
Temperature sensor types	PT100 thermistor
Programmable Force-Controlled Actuation	Up to 180 Kg Optional Custom

Facilities

Power	3PH 208-230/380-440V AC 50/60Hz
Customer CDA [Recomended] To prevent condensation	<0.5cfm @ 90PSI -70°C dew point
Ambient Operating temperature	-10°C to 35°C

Mechanical Data

System size WxHxL (mm)	560 x 750 x 800
System weight (Kg)	~180
DUT Dimensions (mm)	Optional Up to 100X100
Controller to Thermal Head distance	~2 meter (Optional to custom)

Communication and Control

Ethernet Full Automation	TCP/IP RJ-45
USB	Optional
Touch screen display	Advanced 7" Touch HMI

Programmable Force-Controlled Actuation

- **Integrated CDA-Driven Mechanism:** High-precision pneumatic actuator for consistent and repeatable pressing cycles. Dynamic
- **Coupling Optimization:** Ensures ideal electrical and thermal contact for Socketed Devices and maximizes heat transfer for Soldered Devices.
- **Safety & Precision:** Protects delicate PCBs and semiconductor packages from mechanical stress.

