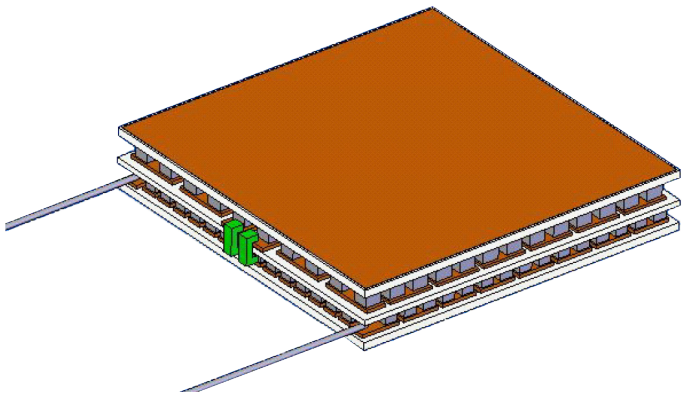
# MULTI-STAGE THERMOELECTRIC COOLER NL2070

## Multi-Stage Thermoelectric Module



## FEATURES

- RoHS EU Compliant
- Rated operating temperature of 85°C
- Maximum processing temperature of 120°C
- Ceramic material: Aluminum Oxide
- Superior nickel diffusion barriers on elements
- High strength for rugged environment
- Pretinned metallized ceramic surface 117°C solder option available
- Ideal for large temperature differentials (ΔT) and large heat pumping applications

COHERENT

### Nominal Performance Nitrogen

| | | |
|---|---|---|
| Hot Side Temperature (°C) | 27 | 50 |
| Δ Tmax (°C) | 81 | 91 |
| Qmax (watts) | 45.0 | 50.0 |
| Imax (amps) | 7.2 | 7.2 |
| Vmax (vdc) | 15.5 | 17.2 |
| AC Resistance (ohms) | 1.92 | -- |

### Nominal Performance Vacuum

| | | |
|---|---|---|
| Hot Side Temperature (°C) | 27 | 50 |
| Δ Tmax (°C) | 88 | 100 |
| Qmax (watts) | 46.0 | 51.0 |
| Imax (amps) | 7.2 | 7.2 |
| Vmax (vdc) | 15.5 | 17.2 |
| AC Resistance (ohms) | 1.92 | -- |

### Ordering Options

| Model Number | Description |
|---|---|
| NL2070-01AC | TEM, Top and Base metallized exterior |
| NL2070-02AC | TEM, Base metallized exterior |
| NL2070-03AC | TEM, no metallized exterior |
| NL2070-04AC | -02AC with hot side pretinned with 117°C solder |

### Operation Cautions

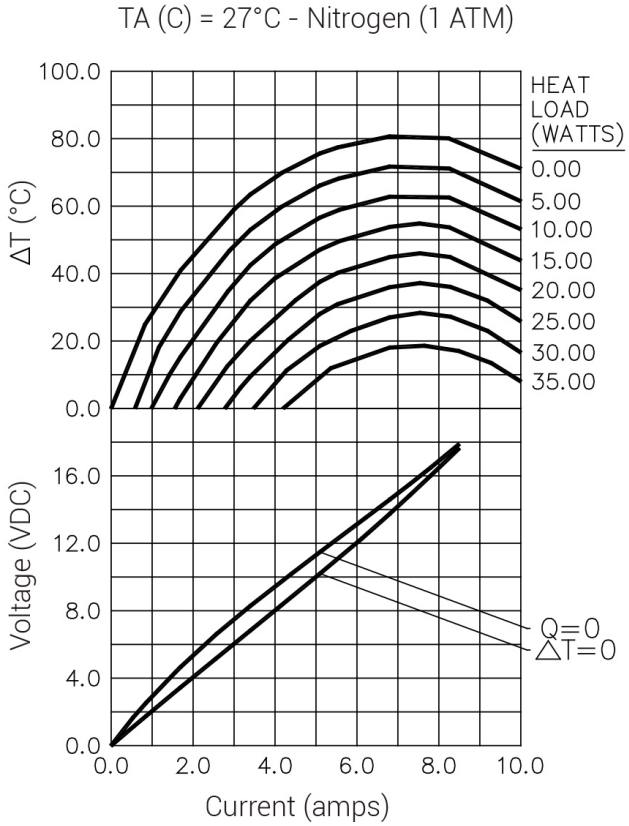
For maximum reliability, storage and operation below 85°C in a non-condensing environment is recommended. To minimize thermal stress, use linear/proportional temperature control or a similar method rather than an ON/OFF method.

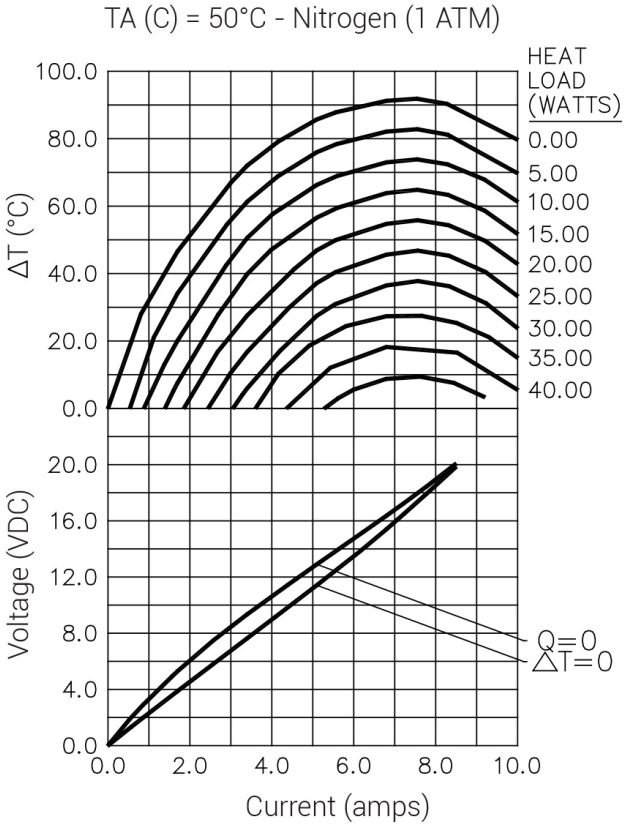
### Installation

Recommended mounting method: Clamp with uniform pressure to a flat surface with thermal interface material. For additional information, please refer to our TEC Installation Guide.

### Typical Performance Curves

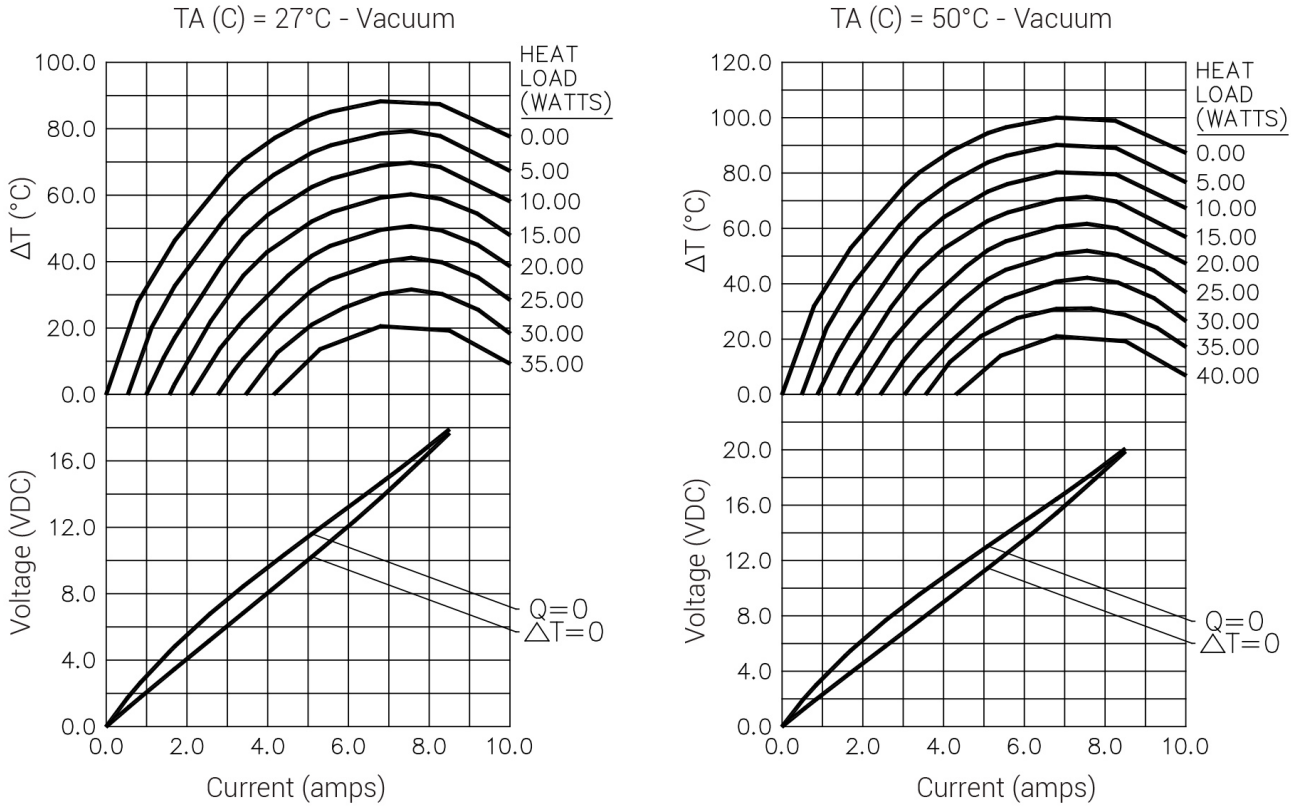
Environment: Nitrogen



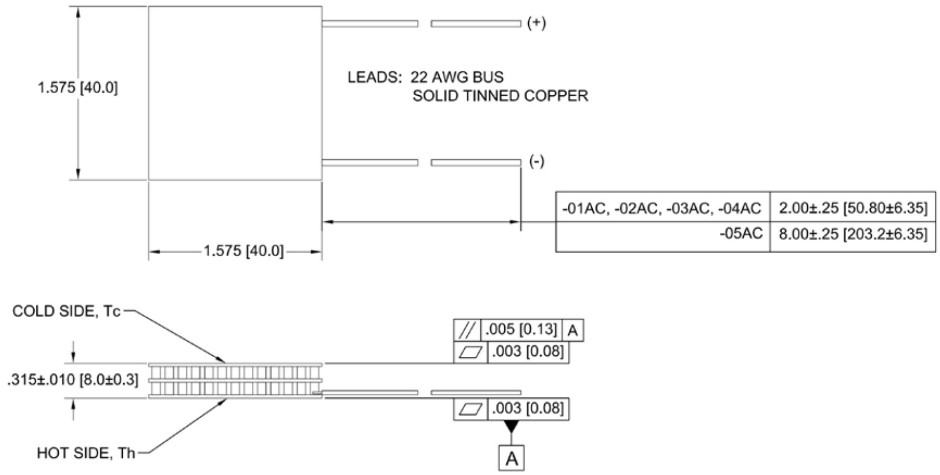
## Typical Performance Curves

Environment: Vacuum




For performance information in a vacuum or with hot side temperatures other than 27°C or 50°C, please contact us.

## Mechanical Characteristics




Dimensions shown are inches [millimeters].



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