

## THERMOELECTRIC COOLERS INDOOR/OUTDOOR



Unshrouded  
60, 100 and 200 Watts



Shrouded  
60, 100 and 200 Watts

### INDUSTRY STANDARDS

UR, cUR Recognized; Type 12, 3R, 4, 4X; File No. SA6453

CE  
IP 65

### APPLICATION

Thermoelectric Coolers minimize downtime and component loss by removing heat around critical components within an enclosure. These compact, low-profile coolers using the Peltier effect allow for cooling of small indoor and outdoor enclosures. No condensers, compressors or filters are required making it a reliable solution for demanding low-maintenance environments.

### FEATURES

- DC Powered operation for 24V and 48V applications
- Low profile design allows for mounting vertically and horizontally on any enclosure to avoid interference with internal components
- Filterless design reduces maintenance requirements
- Contains no refrigerant, making it earth friendly
- Prewired with simple terminal block for easy wiring connections
- Operates on the Peltier effect for cooling or heating
- Compressor-free air conditioning for demanding indoor and outdoor applications
- Shrouded and unshrouded models included in standard packages
- Operating temperature range -40 C (-40 F) to 55 C (131 F)
- Partial recess mount

### SPECIFICATIONS

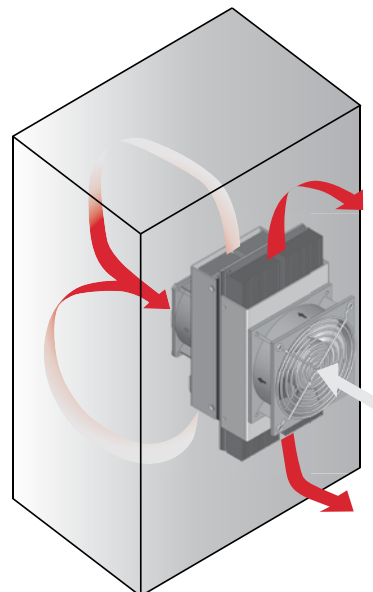
- Models
  - 60 Watt, 24 Volt
  - 100 Watt, 24/48 Volt
  - 200 Watt, 24/48 Volt

### FINISH

- Shrouded finish includes both powder coat paint RAL 7035 light gray standard and stainless steel 304

### ACCESSORIES

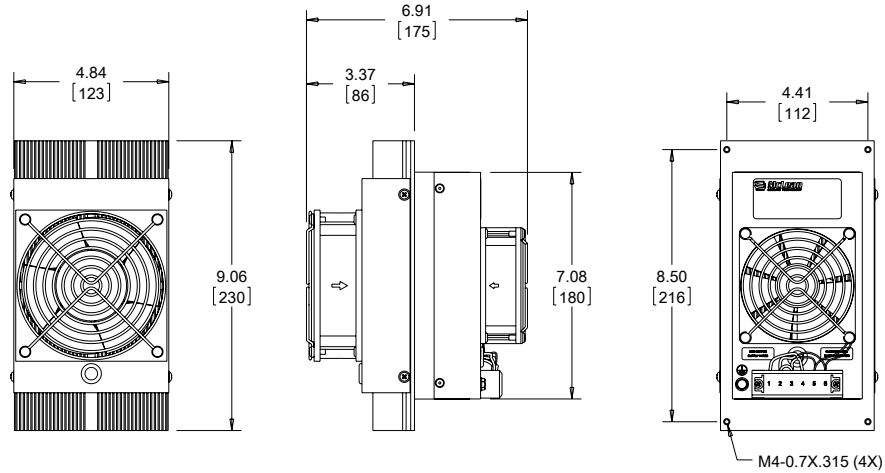
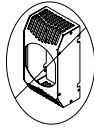
Thermoelectric Temperature Controller  
Thermoelectric Condensate Manager



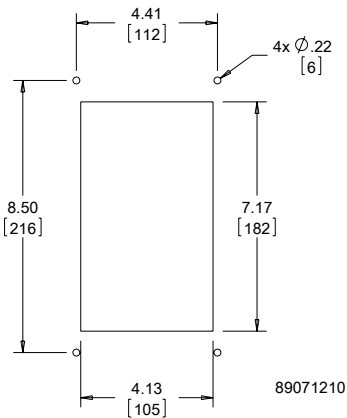
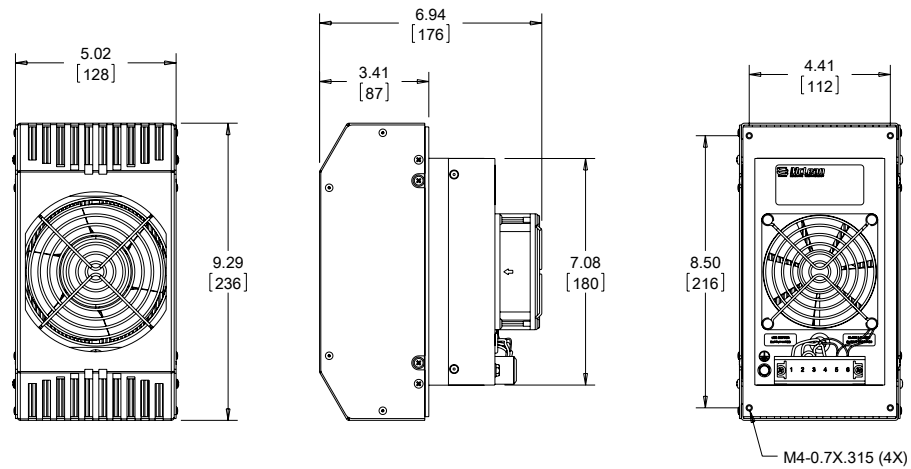
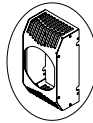
Performance Data **TE09 60W 204 BTU/Hr. (24 V)**

| CATALOG NUMBERS                                 |                          |                                                                        |                          |
|-------------------------------------------------|--------------------------|------------------------------------------------------------------------|--------------------------|
| Description                                     | 24V w/o shroud           | 24V w/ painted shroud                                                  | 24V w/ SS shroud         |
| Catalog Number                                  | TE090624020              | TE090624010                                                            | TE090624011              |
| COOLING PERFORMANCE                             |                          |                                                                        |                          |
| BTU/Hr.                                         | 178                      | 178                                                                    | 178                      |
| Watts                                           | 52                       | 52                                                                     | 52                       |
| Operating Temperature Range:                    |                          |                                                                        |                          |
| Maximum (°C / °F)                               | 55 / 131                 | 55 / 131                                                               | 55 / 131                 |
| Minimum (°C / °F)                               | -40 / -40                | -40 / -40                                                              | -40 / -40                |
| Air Flow at 0 Static Pressure:                  |                          |                                                                        |                          |
| Internal loop (CFM / M <sup>3</sup> /Hr.)       | 24 / 41                  | 24 / 41                                                                | 24 / 41                  |
| External loop (CFM / M <sup>3</sup> /Hr.)       | 80 / 136                 | 80 / 136                                                               | 80 / 136                 |
| Nominal Heating Watts                           | 64                       | 64                                                                     | 64                       |
| ELECTRICAL DATA                                 |                          |                                                                        |                          |
| Input DC Voltage                                |                          |                                                                        |                          |
| Nominal (VDC)                                   | 24                       | 24                                                                     | 24                       |
| Minimum (VDC)                                   | 18                       | 18                                                                     | 18                       |
| Maximum (VDC)                                   | 27.6                     | 27.6                                                                   | 27.6                     |
| Power Consumption 95 F / 95 F (35 C / 35 C) (W) | 89                       | 89                                                                     | 89                       |
| Rated Current (Amps) at 131 F/131 F (55 C/55 C) | 4.4                      | 4.4                                                                    | 4.4                      |
| Agency Approvals                                | UR, cUR Recognized<br>CE | UR, cUR Recognized<br>CE                                               | UR, cUR Recognized<br>CE |
| Power Input Description                         | Terminal Block           | Terminal Block                                                         | Terminal Block           |
| ENCLOSURE PROTECTION                            |                          |                                                                        |                          |
| UL Type / IP Rating                             | Type 12,3R,4,4X / IP 65  | Type 12,3R,4 / IP 65                                                   | Type 12,3R,4,4X / IP 65  |
| SOUND LEVEL                                     |                          |                                                                        |                          |
| At 1.5 Meters                                   | 65 dBA                   | 65 dBA                                                                 | 65 dBA                   |
| UNIT CONSTRUCTION                               |                          |                                                                        |                          |
| Heat Sink Material                              | Anodized Aluminum        | Anodized Aluminum                                                      | Anodized Aluminum        |
| Shroud Material                                 | N/A                      | Galvanized Steel                                                       | Stainless Steel          |
| Shroud Finish                                   | N/A                      | RAL 7035 light-gray,<br>semi-textured<br>powder-coat<br>paint standard | No. 4 Brushed Finish     |
| UNIT DIMENSIONS                                 |                          |                                                                        |                          |
| Height (in. / mm)                               | 9.06/230                 | 9.29/236                                                               | 9.29/236                 |
| Width (in. / mm)                                | 4.84/123                 | 5.02/128                                                               | 5.02/128                 |
| Depth (in. / mm)                                | 6.91/176                 | 6.94/176                                                               | 6.94/176                 |
| Weight (lb. / kg)                               | 6.00/2.70                | 7.80/3.60                                                              | 7.80/3.60                |

60 W 24 V



60 W 24 V



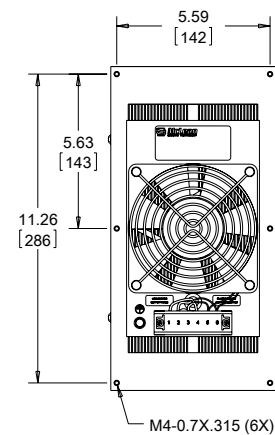
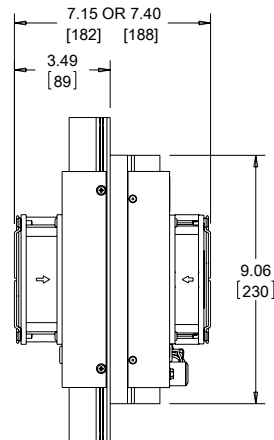
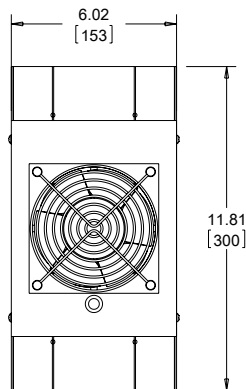
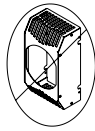
Cutout Dimensions

Visit [nVent.com/HOFFMAN](http://nVent.com/HOFFMAN) to download 2D and 3D CAD drawings into the overall design of your electrical system.

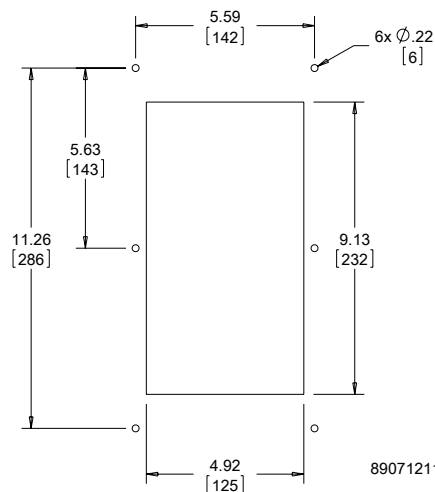
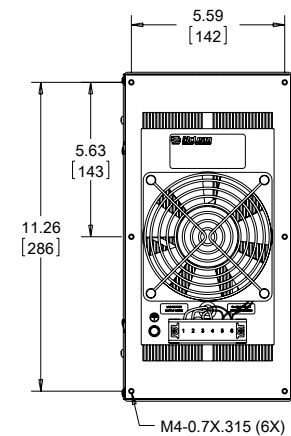
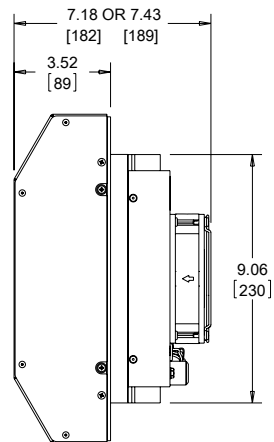
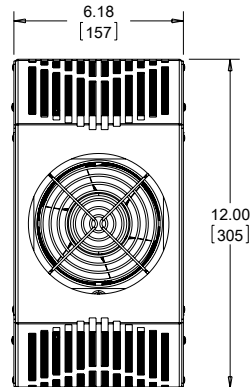
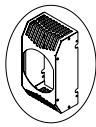
Performance Data **TE12 100W 341 BTU/Hr. (24/48 V)**

| CATALOG NUMBERS                                    |                                  |                                                                        |                                  |                                  |                                                                        |
|----------------------------------------------------|----------------------------------|------------------------------------------------------------------------|----------------------------------|----------------------------------|------------------------------------------------------------------------|
| Description                                        | 24V w/o shroud                   | 24V w/ painted shroud                                                  | 24V w/ SS shroud                 | 48V w/o shroud                   | 48V w/ painted shroud                                                  |
| Catalog Number                                     | TE121024020                      | TE121024010                                                            | TE121024011                      | TE121048020                      | TE121048010                                                            |
| COOLING PERFORMANCE                                |                                  |                                                                        |                                  |                                  |                                                                        |
| BTU/Hr.                                            | 321                              | 321                                                                    | 321                              | 321                              | 321                                                                    |
| Watts                                              | 94                               | 94                                                                     | 94                               | 94                               | 94                                                                     |
| Operating Temperature Range:                       |                                  |                                                                        |                                  |                                  |                                                                        |
| Maximum (°C / °F)                                  | 55 / 131                         | 55 / 131                                                               | 55 / 131                         | 55 / 131                         | 55 / 131                                                               |
| Minimum (°C / °F)                                  | -40 / -40                        | -40 / -40                                                              | -40 / -40                        | -40 / -40                        | -40 / -40                                                              |
| Air Flow at 0 Static Pressure:                     |                                  |                                                                        |                                  |                                  |                                                                        |
| Internal loop (CFM / M <sup>3</sup> /Hr.)          | 62 / 105                         | 62 / 105                                                               | 62 / 105                         | 62 / 105                         | 62 / 105                                                               |
| External loop (CFM / M <sup>3</sup> /Hr.)          | 86 / 146                         | 86 / 146                                                               | 86 / 146                         | 86 / 146                         | 86 / 146                                                               |
| Nominal Heating Watts                              | 94                               | 94                                                                     | 94                               | 94                               | 94                                                                     |
| ELECTRICAL DATA                                    |                                  |                                                                        |                                  |                                  |                                                                        |
| Input DC Voltage                                   |                                  |                                                                        |                                  |                                  |                                                                        |
| Nominal (VDC)                                      | 24                               | 24                                                                     | 24                               | 48                               | 48                                                                     |
| Minimum (VDC)                                      | 18                               | 18                                                                     | 18                               | 40                               | 40                                                                     |
| Maximum (VDC)                                      | 27.6                             | 27.6                                                                   | 27.6                             | 56.7                             | 56.7                                                                   |
| Power Consumption<br>95 F / 95 F (35 C / 35 C) (W) | 162                              | 162                                                                    | 162                              | 162                              | 162                                                                    |
| Rated Current (Amps)<br>at 131 F/131 F (55 C/55 C) | 8.5                              | 8.5                                                                    | 8.5                              | 4.4                              | 4.4                                                                    |
| Agency Approvals                                   | UR, cUR Recognized<br>CE<br>GOST | UR, cUR Recognized<br>CE<br>GOST                                       | UR, cUR Recognized<br>CE<br>GOST | UR, cUR Recognized<br>CE<br>GOST | UR, cUR Recognized<br>CE<br>GOST                                       |
| Power Input Description                            | Terminal Block                   | Terminal Block                                                         | Terminal Block                   | Terminal Block                   | Terminal Block                                                         |
| ENCLOSURE PROTECTION                               |                                  |                                                                        |                                  |                                  |                                                                        |
| UL Type / IP Rating                                | Type 12,3R,4,4X / IP 65          | Type 12,3R,4 / IP 65                                                   | Type 12,3R,4,4X / IP 65          | Type 12,3R,4,4X / IP 65          | Type 12,3R,4 / IP 65                                                   |
| SOUND LEVEL                                        |                                  |                                                                        |                                  |                                  |                                                                        |
| At 1.5 Meters                                      | 68 dBA                           | 68 dBA                                                                 | 68 dBA                           | 68 dBA                           | 68 dBA                                                                 |
| UNIT CONSTRUCTION                                  |                                  |                                                                        |                                  |                                  |                                                                        |
| Heat Sink Material                                 | Anodized Aluminum                | Anodized Aluminum                                                      | Anodized Aluminum                | Anodized Aluminum                | Anodized Aluminum                                                      |
| Shroud Material                                    | N/A                              | Galvanized Steel                                                       | Stainless Steel                  | N/A                              | Galvanized Steel                                                       |
| Shroud Finish                                      | N/A                              | RAL 7035 light-gray,<br>semi-textured<br>powder-coat<br>paint standard | No. 4 Brushed Finish             | N/A                              | RAL 7035 light-gray,<br>semi-textured<br>powder-coat<br>paint standard |
| UNIT DIMENSIONS                                    |                                  |                                                                        |                                  |                                  |                                                                        |
| Height (in. / mm)                                  | 11.81/300                        | 12.00/305                                                              | 12.00/305                        | 11.81/300                        | 12.00/305                                                              |
| Width (in. / mm)                                   | 6.02/153                         | 6.18/157                                                               | 6.18/157                         | 6.02/153                         | 6.18/157                                                               |
| Depth (in. / mm)                                   | 7.40/188                         | 7.43/189                                                               | 7.43/189                         | 7.40/188                         | 7.43/189                                                               |
| Weight (lb. / kg)                                  | 8.50/3.90                        | 11.00/5.00                                                             | 11.00/5.00                       | 8.50/3.90                        | 11.00/5.00                                                             |

100 W 24/48 V



100 W 24/48 V



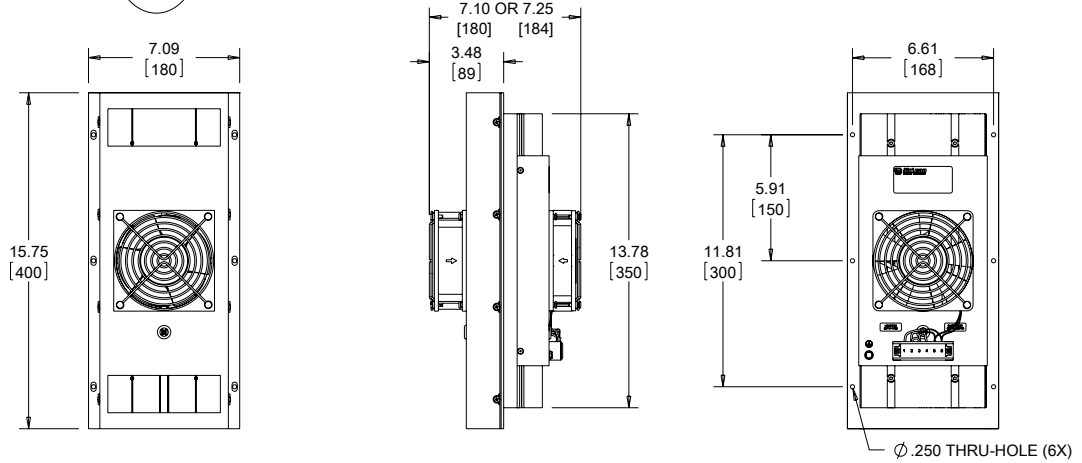
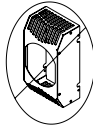
Cutout Dimensions

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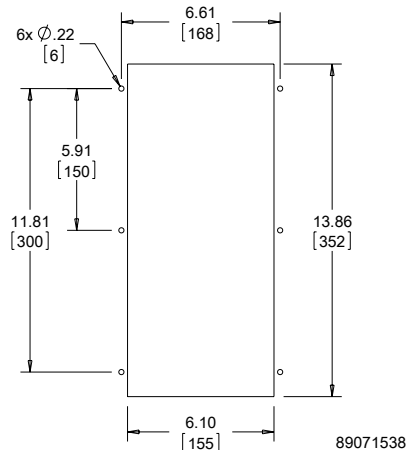
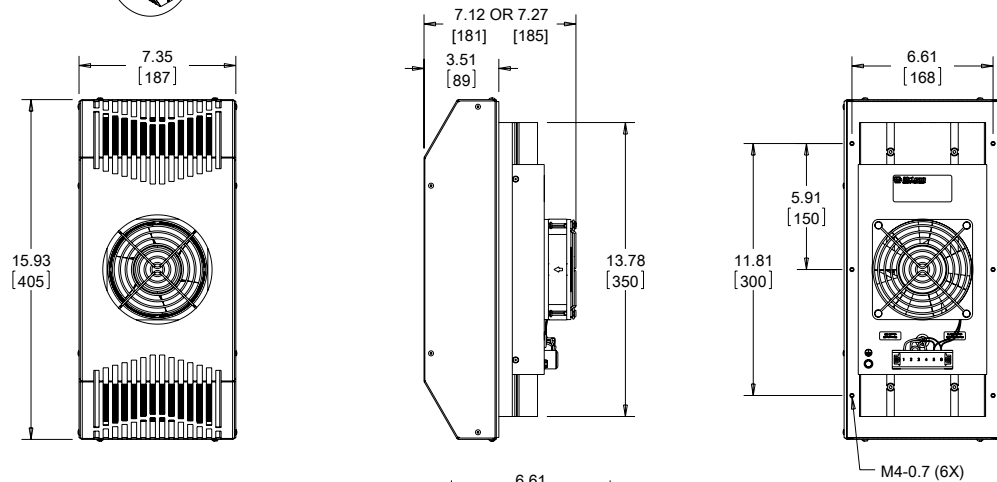
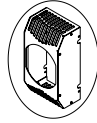
Performance Data **TE16 200W 682 BTU/Hr. (24/48 V)**

| CATALOG NUMBERS                                    |                                  |                                                                        |                                  |                                  |                                                                        |
|----------------------------------------------------|----------------------------------|------------------------------------------------------------------------|----------------------------------|----------------------------------|------------------------------------------------------------------------|
| Description                                        | 24V w/o shroud                   | 24V w/ painted shroud                                                  | 24V w/ SS shroud                 | 48V w/o shroud                   | 48V w/ painted shroud                                                  |
| Catalog Number                                     | TE162024020                      | TE162024010                                                            | TE162024011                      | TE162048020                      | TE162048010                                                            |
| COOLING PERFORMANCE                                |                                  |                                                                        |                                  |                                  |                                                                        |
| BTU/Hr.                                            | 567                              | 567                                                                    | 567                              | 567                              | 567                                                                    |
| Watts                                              | 166                              | 166                                                                    | 166                              | 166                              | 166                                                                    |
| Operating Temperature Range:                       |                                  |                                                                        |                                  |                                  |                                                                        |
| Maximum (°C / °F)                                  | 55 / 131                         | 55 / 131                                                               | 55 / 131                         | 55 / 131                         | 55 / 131                                                               |
| Minimum (°C / °F)                                  | -40 / -40                        | -40 / -40                                                              | -40 / -40                        | -40 / -40                        | -40 / -40                                                              |
| Air Flow at 0 Static Pressure:                     |                                  |                                                                        |                                  |                                  |                                                                        |
| Internal loop (CFM / M <sup>3</sup> /Hr.)          | 62 / 105                         | 62 / 105                                                               | 62 / 105                         | 62 / 105                         | 62 / 105                                                               |
| External loop (CFM / M <sup>3</sup> /Hr.)          | 86 / 146                         | 86 / 146                                                               | 86 / 146                         | 86 / 146                         | 86 / 146                                                               |
| Nominal Heating Watts                              | 146                              | 146                                                                    | 146                              | 146                              | 146                                                                    |
| ELECTRICAL DATA                                    |                                  |                                                                        |                                  |                                  |                                                                        |
| Input DC Voltage                                   |                                  |                                                                        |                                  |                                  |                                                                        |
| Nominal (VDC)                                      | 24                               | 24                                                                     | 24                               | 48                               | 48                                                                     |
| Minimum (VDC)                                      | 18                               | 18                                                                     | 18                               | 40                               | 40                                                                     |
| Maximum (VDC)                                      | 27.6                             | 27.6                                                                   | 27.6                             | 56.7                             | 56.7                                                                   |
| Power Consumption<br>95 F / 95 F (35 C / 35 C) (W) | 295                              | 295                                                                    | 295                              | 295                              | 295                                                                    |
| Rated Current (Amps)<br>at 131 F/131 F (55 C/55 C) | 14.7                             | 14.7                                                                   | 14.7                             | 7.6                              | 7.6                                                                    |
| Agency Approvals                                   | UR, cUR Recognized<br>CE<br>GOST | UR, cUR Recognized<br>CE<br>GOST                                       | UR, cUR Recognized<br>CE<br>GOST | UR, cUR Recognized<br>CE<br>GOST | UR, cUR Recognized<br>CE<br>GOST                                       |
| Power Input Description                            | Terminal Block                   | Terminal Block                                                         | Terminal Block                   | Terminal Block                   | Terminal Block                                                         |
| ENCLOSURE PROTECTION                               |                                  |                                                                        |                                  |                                  |                                                                        |
| UL Type / IP Rating                                | Type 12,3R,4,4X / IP 65          | Type 12,3R,4 / IP 65                                                   | Type 12,3R,4,4X / IP 65          | Type 12,3R,4,4X / IP 65          | Type 12,3R,4 / IP 65                                                   |
| SOUND LEVEL                                        |                                  |                                                                        |                                  |                                  |                                                                        |
| At 1.5 Meters                                      | 68 dBA                           | 68 dBA                                                                 | 68 dBA                           | 68 dBA                           | 68 dBA                                                                 |
| UNIT CONSTRUCTION                                  |                                  |                                                                        |                                  |                                  |                                                                        |
| Heat Sink Material                                 | Anodized Aluminum                | Anodized Aluminum                                                      | Anodized Aluminum                | Anodized Aluminum                | Anodized Aluminum                                                      |
| Shroud Material                                    | N/A                              | Galvanized Steel                                                       | Stainless Steel                  | N/A                              | Galvanized Steel                                                       |
| Shroud Finish                                      | N/A                              | RAL 7035 light-gray,<br>semi-textured<br>powder-coat<br>paint standard | No. 4 Brushed Finish             | N/A                              | RAL 7035 light-gray,<br>semi-textured<br>powder-coat<br>paint standard |
| UNIT DIMENSIONS                                    |                                  |                                                                        |                                  |                                  |                                                                        |
| Height (in. / mm)                                  | 15.75/400                        | 15.93/405                                                              | 15.93/405                        | 15.75/400                        | 15.93/405                                                              |
| Width (in. / mm)                                   | 7.09/180                         | 7.35/187                                                               | 7.35/187                         | 7.09/180                         | 7.35/187                                                               |
| Depth (in. / mm)                                   | 7.25/184                         | 7.27/185                                                               | 7.27/185                         | 7.25/184                         | 7.27/185                                                               |
| Weight (lb. / kg)                                  | 14.80/6.70                       | 18.60/8.40                                                             | 18.60/8.40                       | 14.80/6.70                       | 18.60/8.40                                                             |

200 W 24/48 V

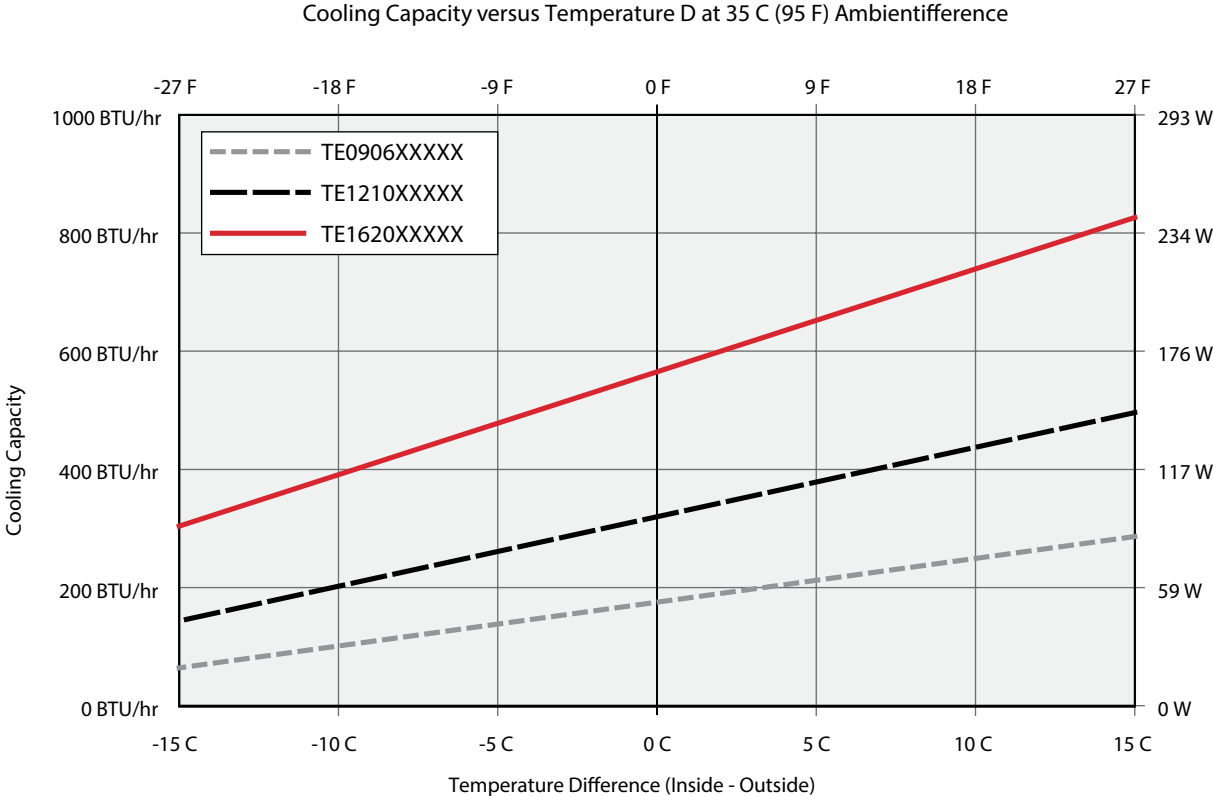


200 W 24/48 V

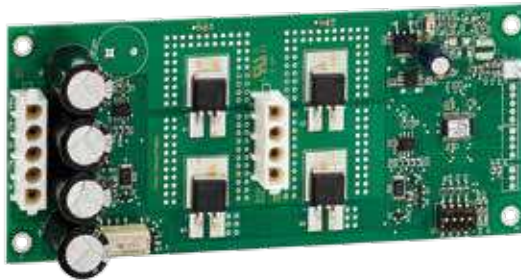


Cutout Dimensions

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## THERMOELECTRIC TEMPERATURE CONTROLLER



### INDUSTRY STANDARDS

UL Recognized; File No. E351017

### FEATURES

- Provides PWM regulation of cooling and heating output for TEC units
- Automatically switches between cooling and heating
- 4 cooling temperature set points range from 22.5 C to 35 C (35 C Factory Setting)
- 3 heating temperature set points range from -5 C to 15 C (15 C Factory Setting)
- Heating function can be easily disabled if desired
- On-board LEDs indicate low temp, high temp alarm, and overall system status
- Dry contact relay output provides for external alarm indication

### Performance Data

| CATALOG NUMBERS                |                                                                                                                                                                                            |                                                                                                                                                                                            |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                | TEC24VCNTRLN                                                                                                                                                                               | TEC48VCNTRLN                                                                                                                                                                               |
| ELECTRICAL DATA                |                                                                                                                                                                                            |                                                                                                                                                                                            |
| Rated Voltage (VDC)            | 24                                                                                                                                                                                         | 48                                                                                                                                                                                         |
| Operating Range (VDC)          | 18 to 30                                                                                                                                                                                   | 40 to 60                                                                                                                                                                                   |
| Current @ Rated Voltage (Amps) | 17.2                                                                                                                                                                                       | 8.6                                                                                                                                                                                        |
| Operating Temperature Range    |                                                                                                                                                                                            |                                                                                                                                                                                            |
| Maximum (°F/°C)                | 131 / 55                                                                                                                                                                                   |                                                                                                                                                                                            |
| Minimum (°F/°C)                | -40 / -40                                                                                                                                                                                  |                                                                                                                                                                                            |
| Temperature Accuracy (°F/°C)   | ± 3.6 / 2.0                                                                                                                                                                                |                                                                                                                                                                                            |
| Alarm Contact Rating           | 1) 0.5 A max @ 24 VDC - from same source of power as unit, SELV, non-power limited (greater than 15 W);<br>OR<br>2) 0.5 A max @ 24 VAC - from, SELV, Class 2 safety isolating transformer. | 1) 0.5 A max @ 48 VDC - from same source of power as unit, SELV, non-power limited (greater than 15 W);<br>OR<br>2) 0.5 A max @ 24 VAC - from, SELV, Class 2 safety isolating transformer. |
| UNIT DIMENSIONS                |                                                                                                                                                                                            |                                                                                                                                                                                            |
| PCB Dimensions                 |                                                                                                                                                                                            |                                                                                                                                                                                            |
| Height (in/mm)                 | 1.20 / 30                                                                                                                                                                                  |                                                                                                                                                                                            |
| Width (in/mm)                  | 2.88 / 73                                                                                                                                                                                  |                                                                                                                                                                                            |
| Length (in/mm)                 | 6.50 / 165                                                                                                                                                                                 |                                                                                                                                                                                            |
| Weight (lb./kg)                | 0.21 / 0.10                                                                                                                                                                                |                                                                                                                                                                                            |
| Mounting Bracket Dimensions    |                                                                                                                                                                                            |                                                                                                                                                                                            |
| Height (in/mm)                 | 0.50 / 13                                                                                                                                                                                  |                                                                                                                                                                                            |
| Width (in/mm)                  | 3.19 / 91                                                                                                                                                                                  |                                                                                                                                                                                            |
| Length (in/mm)                 | 6.50 / 165                                                                                                                                                                                 |                                                                                                                                                                                            |
| Weight (lb./kg)                | 0.29 / 0.13                                                                                                                                                                                |                                                                                                                                                                                            |
| Accessories                    |                                                                                                                                                                                            |                                                                                                                                                                                            |
| Input Supply Harness           | 60-in. (1525mm) long Supply Harness<br>Catalog Number TECSUPPLYHARNESS                                                                                                                     |                                                                                                                                                                                            |
| Board to TEC Harness           | 36-in. (915mm) long Control Harness<br>Catalog Number TECCONTROLHARNESS                                                                                                                    |                                                                                                                                                                                            |

THERMOELECTRIC CONDENSATE MANAGER



INDUSTRY STANDARDS

Maintains UL/cUL Type 3R, 12, 4 and 4X rating when properly installed

FEATURES

- Includes all required hardware and vent drain
- Maintains the integrity of Type 4 or Type 4X enclosure
- Drains condensation to bottom of enclosure via vent drain (vent drain included with package)
- Utilizes existing mounting holes and fasteners of thermoelectric cooler that requires no additional mounting

FINISH

- Pan Material Galvanized steel polyester powder coat paint with RAL 7035
- Vent drain material options include stainless steel or non-metallic

Performance Data

| CATALOG NUMBERS     |                                                               |              |                 |              |                 |              |
|---------------------|---------------------------------------------------------------|--------------|-----------------|--------------|-----------------|--------------|
|                     | TEC60WCMSS4                                                   | TEC60WCMNM   | TEC100WCMSS4    | TEC100WCMNM  | TEC200WCMSS4    | TEC200WCMNM  |
| Fits TEC Unit Model | All TE09                                                      | All TE09     | All TE12        | All TE12     | All TE16        | All TE16     |
| UNIT CONSTRUCTION   |                                                               |              |                 |              |                 |              |
| Pan Material        | Galvanized Steel                                              |              |                 |              |                 |              |
| Pan Finish          | RAL 7035 light-gray, semi-textured powder-coat paint standard |              |                 |              |                 |              |
| Vent Drain Material | Stainless Steel                                               | Non-Metallic | Stainless Steel | Non-Metallic | Stainless Steel | Non-Metallic |
| UNIT DIMENSIONS     |                                                               |              |                 |              |                 |              |
| Height (in./mm)     | .75/19                                                        | .75/19       | .75/19          | .75/19       | .75/19          | .75/19       |
| Width (in./mm)      | 5.50/140                                                      | 5.50/140     | 6.25/159        | 6.25/159     | 7.44/189        | 7.44/189     |
| Depth (in./mm)      | 2.50/64                                                       | 2.50/64      | 2.50/64         | 2.50/64      | 2.50/64         | 2.50/64      |