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
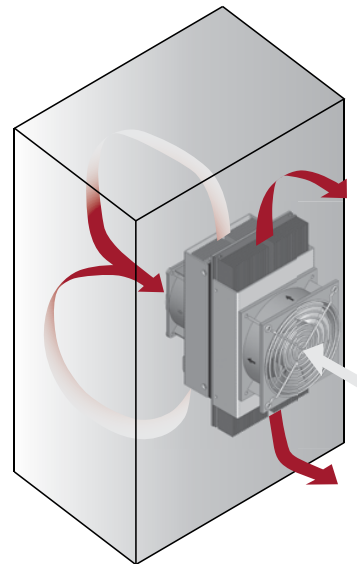   - 200 Watt, 24/48 Volt

FINISH

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

ACCESSORIES

- Optional thermolelectric temperature controller regulates cooling and heating automatically
- Optional thermoelectric condenser manager helps direct condensation to the bottom of the enclosure

NOTES

Visit www.PentairProtect.com to download 2D and 3D CAD drawings into the overall design of your electrical system.
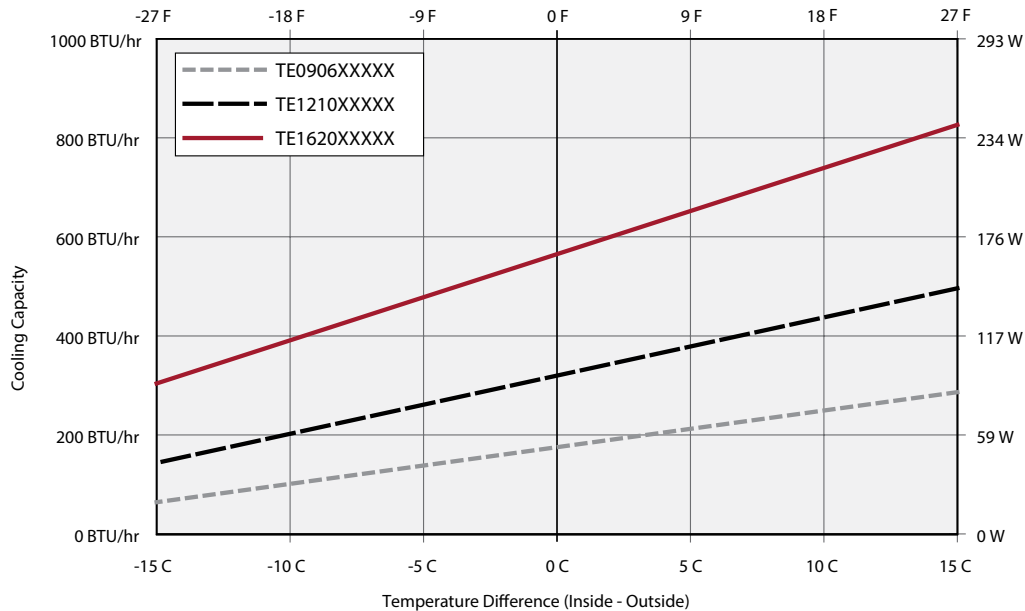
2301 S. Highway 77, Pauls Valley, OK 73075
T: (800) 753-8459 • F: (877) 220-7236
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ISO 9001 Certified
CSA Certified
Cage Code 385Y5

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

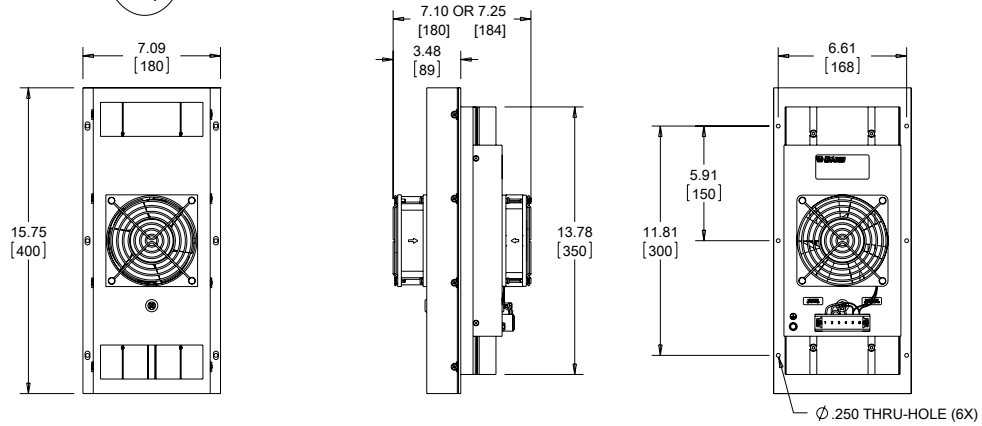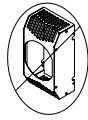| CATALOG NUMBERS					
Description	24V w/o shroud	24V w/ painted shroud	24V w/ SS shroud	48V w/o shroud	48V w/ painted shroud
Catalog Number	TE162024020	TE162024010	TE162024011	TE162048020	TE162048010
COOLING PERFORMANCE					
BTU/Hr.	**567**	**567**	**567**	**567**	**567**
Watts	**166**	**166**	**166**	**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^3/Hr.)	62 / 105	62 / 105	62 / 105	62 / 105	62 / 105
External loop (CFM / M^3/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 95 F / 95 F (35 C / 35 C) (W)	295	295	295	295	295
Rated Current (Amps) at 131 F/131 F (55 C/55 C)	14.7	14.7	14.7	7.6	7.6
Agency Approvals	UR, cUR Recognized CE GOST	UR, cUR Recognized CE GOST	UR, cUR Recognized CE GOST	UR, cUR Recognized CE GOST	UR, cUR Recognized CE 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, semi-textured powder-coat paint standard	No. 4 Brushed Finish	N/A	RAL 7035 light-gray, semi-textured powder-coat 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

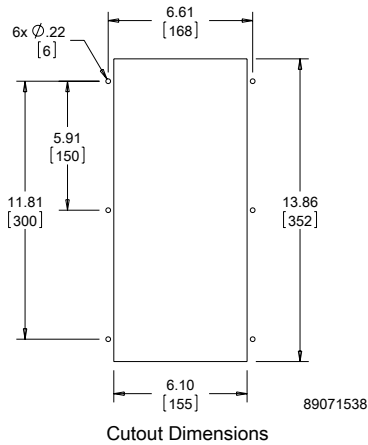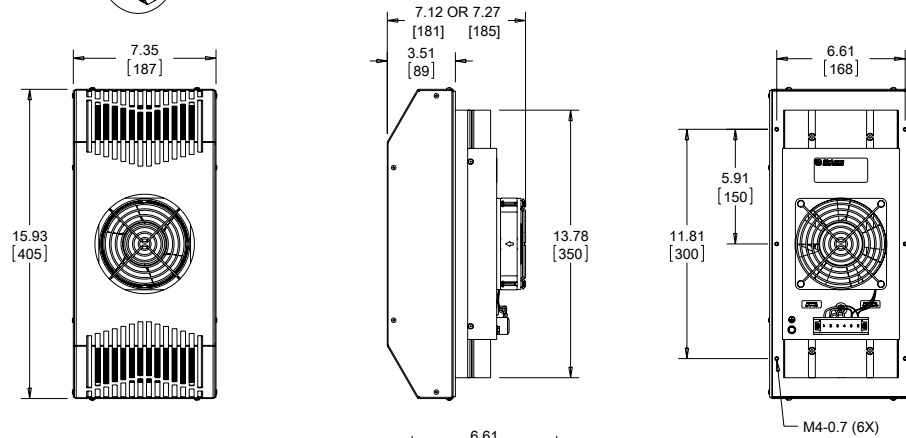Cooling Capacity versus Temperature D at 35 C (95 F) Ambientifference

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200 W 24/48 V

7.09 [180]

15.75 [400]

7.10 OR 7.25 [180] [184]

3.48 [89]

13.78 [350]

11.81 [300]

6.61 [168]

5.91 [150]

⌀ .250 THRU-HOLE (6X)

200 W 24/48 V

7.35 [187]

15.93 [405]

7.12 OR 7.27 [181] [185]

3.51 [89]

13.78 [350]

11.81 [300]

6.61 [168]

5.91 [150]

M4-0.7 (6X)

6x ⌀ .22 [6]

6.61 [168]

5.91 [150]
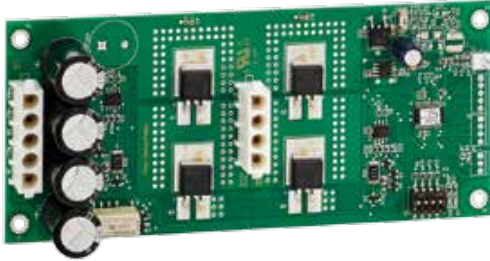
11.81 [300]

13.86 [352]

6.10 [155]

89071538

Cutout Dimensions

Visit www.PentairProtect.com to download 2D and 3D CAD drawings into the overall design of your electrical system.

THERMOELECTRIC TEMPERATURE CONTROLLER

INDUSTRY STANDARDS

UL Recognized; File No. 60730

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		
	TEC24VCNTLRN	TEC48VCNTLRN
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); OR 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); OR 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 Catalog Number TECSUPPLYHARNESS	
Board to TEC Harness	36-in. (915mm) long Control Harness Catalog Number TECCONTROLHARNESS	