470 Beauty Spot Rd. E Bennettsville, SC 29512

SUBMITTAL SHEET THERMAZONE THIN SERIES

INDUSTRIAL/COMMERCIAL/ **RESIDENTIAL**

INFRARED HEATER

CAPACITIES

Element Type: Flat Panel Emitter Reflection Angles: 60° Symmetrical **Mounting Types**: Brackets included for ceiling mount and wall mount. Can also be hung by chain or threaded rod.

| | | | | | | | | | See Sei | ection Chart for all | Options |
|--------------|-------|---------|-----|------|----------------|--------|---------------|----------|---------------------|----------------------|----------|
| JOB NAME: | | | | | | | | | | | |
| LOCATION: _ | | | | | | | | | | | |
| ARCHITECT: _ | | | | | | | | | | | |
| ENGINEER: | | | | | | | | | | | |
| CONTRACTOR | ₽: | | | | | | | | | | |
| SUBMITTED B | Y: | | | | | | D | ATE: | | | |
| | | | | | | HEATER | | | | | |
| TAG/ITEM | QTY. | CATALOG | NUM | BER | KW | VOLTS | ø | AMPS | REFLECTION ANGLE | FINISH | MOUNTING |
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| | | TAG/IT | ЕМ | QTY. | CATALOG NUMBER | | | BER | DESCRIPTION | | |
| ACCESSO | ORIES | | | | | | | | | | |
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| CONTR | OLS | | | | | | | | | | |
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| CUDMITTER | 27. | | | | DATE | | 7 [| 4 DDD0\" | - D. DV | | DATE |
| SUBMITTED | 5 Y : | | | | DATE | | - | APPROVI | בט או: | | DATE |
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ARCHITECT'S AND ENGINEER'S SPECIFICATIONS*

The electric infrared heater shall be ThermazoneThin as manufactured by BBC Industries, Pacific, MO. The construction and design shall permit it to be ceiling or wall mounted, with the use of the mounting brackets supplied, or chain hung according to supplied instructions. Heaters shall include the features listed below.

HEATING ASSEMBLY: The heating assembly shall be cULus listed under standard 2021 and shall consist of single stranded, non-coiled Ni-Chrome wire embedded in vitrified ceramic fiber and backed with high density, low biopersistent Fiberfrax insulation. The emitting surface is covered with a black-coated high temperature fiberglass cloth.

WIRING: For connection to the power supply, Thermazone heaters will include an indoor/outdoor rate j-box mounted to the heater's raceway.

CONSTRUCTION: The heaters are formed and fastened together out of 16 ga. and 20 ga. CRS or stainless steel. If CRS, the heater must be powder coated with a high temp black finish. Unit may include a Stainless Steel grid on the face of the heater.

*QMark reserves the right to change specifications without prior notice.

How to Order

Example:

| TZ 36 - | 2200 | U | - 240 | - SS |
|--|------|---|-------|------|
| Model: TZ = Thermazone Thin | 2200 | | 240 | |
| Heating Element Length: 18 = 18" 36 = 36" | | | | |
| Approximate Wattage: See table for full wattages | | | | |
| Heater Listing: U = cULus | | | | |
| Voltage: 120 = 120V 240 = 208/240V | | | I | |
| Finish: B = Powder Coated Black SS = Stainless Steel | | | | |

| Approvals: | |
|------------|--|

Models & Specifications:

| ITEM INFORMATION | ELECTRICAL DATA | | | | | | |
|---------------------|-----------------|---------------|-------|-------|------|--|--|
| CATALOG NO. | MODEL | WATTS | PHASE | VOLTS | AMPS | | |
| QR-STT-U18-1091B | 18" | 1091 | 1 | 120 | 9.1 | | |
| QR-STT-U18-1330B | 18" | 1330 | 1 | 120 | 11.1 | | |
| QR-STT-U18-1767B | 18" | 1767 | 1 | 120 | 14.8 | | |
| QR-STT-U18-2161B | 18" | 2161 | 1 | 120 | 18.0 | | |
| | 36" | 2180/1635 | 1 | 208 | 6.8 | | |
| QR-STT-U36-2180V | | | | 240 | 9.1 | | |
| OD CTT 117C 0CC01/ | 36" | 36" 2660/1998 | 1 | 208 | 7.9 | | |
| QR-STT-U36-2660V | | | | 240 | 11.1 | | |
| OD CTT 117C 710 41/ | 70" | 710 4 /0771 | 1 | 208 | 11.2 | | |
| QR-STT-U36-3104V | 36" | 3104/2331 | 1 | 240 | 12.9 | | |
| 00 077 1170 757 117 | 70" | 7574/0005 | | 208 | 12.8 | | |
| QR-STT-U36-3534V | 36" | 3534/2665 | 1 | 240 | 14.8 | | |
| OD CTT 117C 4700V | 70" | 4700/7046 | 1 | 208 | 15.6 | | |
| QR-STT-U36-4322V | 36" | 4322/3246 | l l | 240 | 18.0 | | |

Optional Accessories:

| CATALOG NO. | DESCRIPTION | COMPATIBLE WITH |
|-------------|-------------------|----------------------------|
| 03-104 | 12" x 24" SS Grid | All 12" x 24" Heaters |
| | 12 X 24" 55 Grid | All 1P 12" x 48" Heaters* |
| 03-105 | 12" x 12" SS Grid | All 12" x 12" Heaters |
| 03-106 | 12" x 16" SS Grid | All 3P 12" x 48" Heaters** |

^{*} Requires quantity of 2. ** Requires quantity of 3.

Optional Local Controls:

| CATALOG NO. | DESCRIPTION | SUPPLY | PHASE | AMP | SI | SUITABLE WITH | | |
|-------------|--|---------|-------|--------|-----------------|---------------|-----------|--|
| CATALOG NO. | DESCRIPTION | VOLTAGE | PHASE | RATING | CONTACTOR PANEL | STAND ALONE | SSR PANEL | |
| TZ-REM-PT | Fixed Cycle Controller w/ Adjustable Output | 120/24 | 1 | NA | _ | _ | Yes | |
| TZ-PCT | Adjustable Cycle Controller w/ Adjustable Output | 120/240 | 1 | 28 | Yes | Yes | Yes | |
| TZ-TIMER | 0-60 Min Heavy Duty In-Wall On/Off Timer | 120/240 | 1 | 28 | Yes | Yes | Yes | |
| TZ-TIMER2HR | 0-120 Min Heavy Duty In-Wall On/Off Timer | 120/240 | 1 | 20 | Yes | Yes | Yes | |
| TZ-HUB | App Based Z-Wave Wireless Connection Hub | 120 | 1 | NA | Yes | Yes | Yes | |
| TZ-SWITCH | App Based Z-Wave Wireless Junction Box | 120/240 | 1 | 40 | Yes | Yes | Yes | |

Optional controls suitable for isolated control of your heater(s), or to be paired with QMark's line of control panels to operate banks of heaters together. Options range from adjustable output cycle timers with fixed and adjustable cycle times, to standard on/off timer control, and introducing market leading Z-Wave app based control for easy operation from your phone.

| Α | Approval | S: | | | |
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Dimensions — ThermaZone Thin:

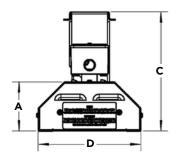
| Model | А | В | C* | D |
|-------|--------|-----|----|----|
| 18" | 3 3/4" | 24" | 9" | 8" |
| 36" | 3 3/4" | 42" | 9" | 8" |

^{*}If using attached bracket

Clearances — ThermaZone Thin:

| | Between Heaters | To Side Walls | To Ceiling |
|----------------------------------|--------------------|------------------|---------------|
| Wall Mounted | 36" | 7" | 7" |
| Ceiling Mounted Vertical | 36" | 36" | 4" |
| Ceiling Mounted Angled Away | 36" | 7" | 7" |
| Ceiling Mounted Angled Toward | 36" | 72" | 4" |

C B



Reflection Angle:



60° Symmetrical

INSTALLATION:

All wiring to this equipment must be connected to the electrical source in strict accordance with National Electrical Code (N. E. C.), Canadian Electrical Code (C.E.C.), international and/or any local codes having jurisdiction.

FOR WALL MOUNTING:

<u>^</u>

Do not install the section closer than:

- 6-7/8 inches below a horizontal surface
- 12 inches to an adjacent vertical surface
- 36 inches to another heater
- 6 feet from the floor

For angle positioning, the heater should not be directed toward any vertical surface closer than 6 feet.

The heater is to be mounted horizontally.

IMPORTANT: For Wall-Mounted heaters, insert the positioning bolts through the slots on both sides of the mounting bracket. DO NOT USE the ceiling mounting hole when mounting a heater on a wall.

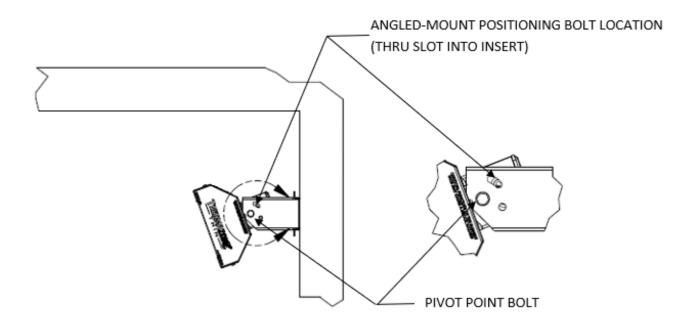


Fig. 1 – ANGLED POSITIONING FOR WALL MOUNTING

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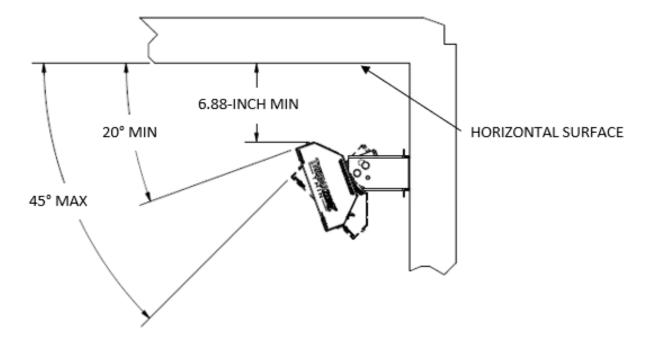


Fig. 2a - WALL MOUNTING

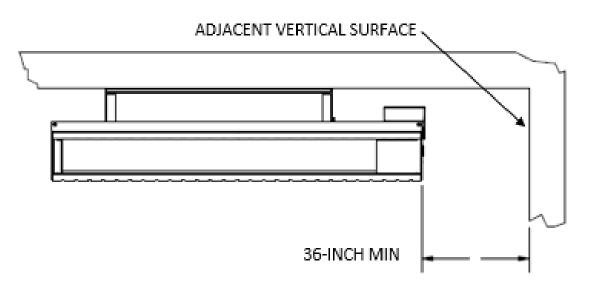


Fig. 2b - WALL MOUNTING

Once the heater is mounted to the wall, position the heater to the desired angle between 20° and 45° downward from the horizontal, limited by the slot length. Tighten the two positioning bolts to secure the heater.

WARNING! Risk of fire. Do not position any heater at an angle not allowed by the slotted hole (20°-45°).

Approvals:

FOR CEILING MOUNTING:

- <u>^</u>
- Do not install the section closer than:
- 36 inches to a vertical surface for vertical mounting
- 6-7/8 inches to a vertical surface for angled ceiling mounting
- 12 inches to an adjacent vertical surface
- 36 inches to another heater
- 6 feet from the floor

Ceiling mounted heaters can be mounted either through the Angled-Mount Positioning Bolt Location or the Ceiling-Mount Only Positioning Bolt Location.

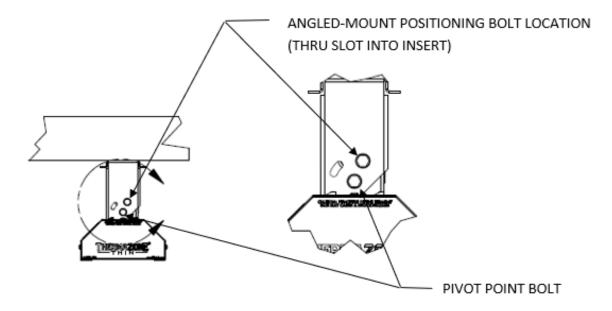


Fig. 3 - CEILING ONLY VERTICAL MOUNTING POSITIONING

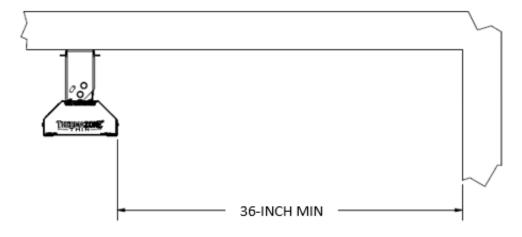


Fig. 4 - CEILING MOUNTING VERTICAL

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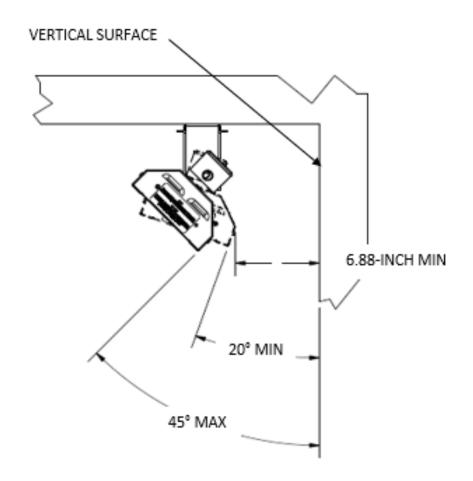


Fig. 5 - CEILING MOUNTING ANGLED AWAY FROM VERTICAL SURFACE

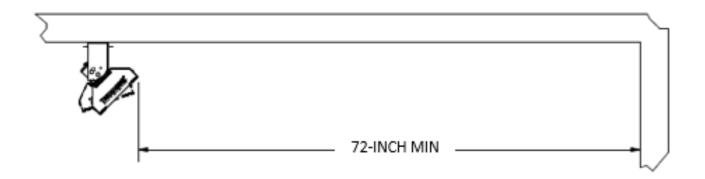


Fig. 6 - CEILING MOUNTING ANGLED TOWARDS VERTICAL SURFACE

FOR PROTECTED AREA MOUNTING:

A Protected Area is defined as "Located in an area that is partially protected from the effects of weathering." Typical protected areas would be the underside of a pavilion with a roof, garage port, and the like.

FOR PROTECTED AREA WALL MOUNTING:

Adhere to all requirements for Wall Mounting listed above. Additionally:

Do not install the section closer than 12 inches to edge of overhang of roof and no more than 8.25 inches (to top of bracket) below the edge.

The heater needs to be installed in a position such that it is protected from rain, snow, and similar outdoor wet areas.

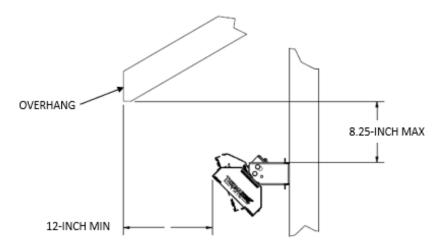


Fig. 7 - PROTECTED AREA WALL MOUNTING

FOR PROTECTED AREA CEILING MOUNTING:

Adhere to all requirements for Ceiling Mounting listed above. Additionally: Do not install the section closer than 12 inches to edge of overhang of roof.

The heater needs to be installed in a position such that it is protected from rain, snow, and similar outdoor wet areas.

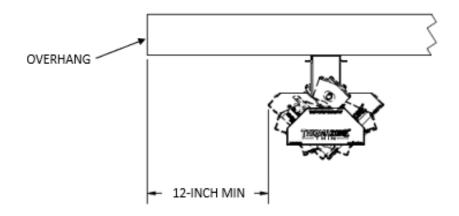


Fig. 8 – PROTECTED AREA CEILING MOUNTING

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For supply connections, use the wire size (or larger) as directed by the chart below. All wires must be suitable for at least 90°C (194°F).

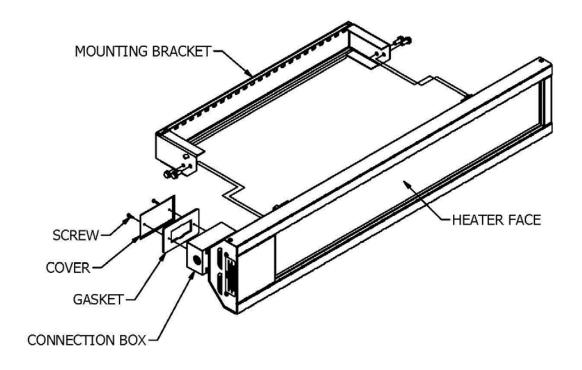
| Model | Watts | 120V | 208V | 240V |
|---------------|-----------|------|------|------|
| QTT-U18-1091B | 1091 | 9.1 | - | - |
| QTT-U18-1330B | 1330 | 11.5 | - | - |
| QTT-U18-1767B | 1767 | 14.8 | - | - |
| QTT-U18-2161B | 2161 | 18.1 | - | - |
| | | | | |
| QTT-U36-1091B | 2180/1635 | 1 | 6.8 | 9.1 |
| QTT-U36-1091B | 2660/2071 | - | 8.6 | 11.5 |
| QTT-U36-1091B | 3104/2328 | - | 9.7 | 12.9 |
| QTT-U36-1091B | 3534/2661 | - | 11.1 | 14.8 |
| QTT-U36-1091B | 4322/3242 | - | 15.6 | 18.1 |

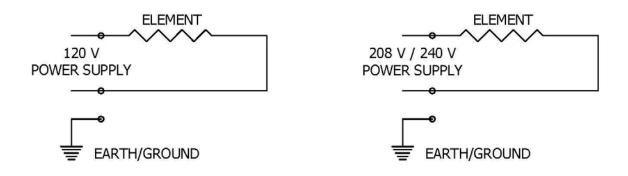
To reduce the risk of fire, do not store or use gasoline or other flammable vapors and liquids in the vicinity of the heater.

CAUTION - High temperature, risk of fire, keep electrical cords, drapery, furnishings, and other combustibles at least 3 feet (0.9 m) from the front of the heater and away from the side and rear.

| Approvals: | | | |
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WIRING DIAGRAM





No matter the industry or application, Marley Engineered Products has a robust portfolio of innovative, reliable, high-performance comfort heating and ventilation solutions for all your heating needs.

For more information or assistance on your next project, contact Technical Services at 800-642-4328

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