

Trane® High Efficiency Gas-Fired Unit Heater

Trane's high efficiency unit heaters bring leading edge condensing heat exchanger technology to Trane's successful unit heater product offering.

Trane's high efficiency unit heaters bring tomorrow's technologies to today's products. Engineered for performance Trane's high efficiency unit heaters incorporate leading edge control and combustion technologies to customers across North America.

Trane's high efficiency unit heater's tri-metal condensing heat exchanger, state-of-the-art control platform and proprietary fully modulating pre-mix burner design safely provide industry leading operating efficiencies of up to 99%!

Available in 6 sizes - 50, 100, 150, 200, 300 and 400 MBH, in both natural gas and LP gas, Trane's high efficiency unit heaters can be vented through PVC and CPVC for application flexibility. All units are field convertible to separated combustion.

STATE-OF-THE-ART CONTROL PLATFORM

- 3:1 Turndown - Self Modulating
- Outdoor/Indoor Reset Settings
- BMS Communication (2-10 VDC/4-20 mA Input)
- Modbus Standard
- LED Diagnostic Lights (External)
- Single Thermostat or Outdoor Sensor can Control Multiple Units

APPLICATION FLEXIBILITY

- NG/LP Single Orifice Field Conversion
- PVC/CPVC Vent Compatible
- Field Convertible to Separated Combustion
- Multiple Voltage Configurations
- OSHA Fan Guards
- Durable Brushed Stainless Steel Cabinet
- Condensate Float Switch and Trap Standard
- Optional Condensate Pump and Condensate Neutralizer
- Single or 2-Stage Capable Gas Valve
- Residentially Certified for use as a Utility Heater

ELECTRONICALLY AIR/FUEL COUPLED

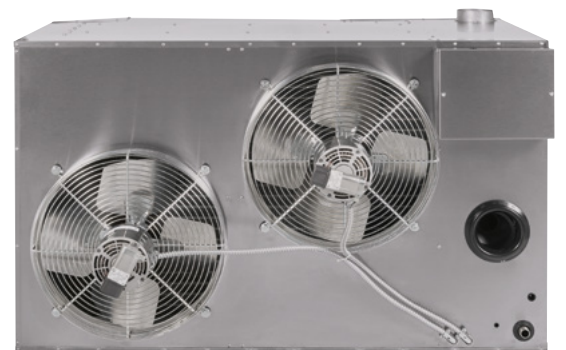
- Proprietary Design for Optimal Efficiency
- Unique Premix Burner Technology
- 3:1 Full Turndown Modulation
- Maximum Efficiency through Precision Modulation
- SafeSense Blocked Inlet and Flue Sensing Technology
- Auto-adjusts for Altitude Requiring no Field Modifications
- Maintains Fuel/Air Ratio with Partial Blockage without Decreasing Performance until Safety Trip

TRI-METAL HYBRID HEAT EXCHANGER

- Full Condensing Efficiencies at all Firing Rates
- Up to 99% Maximum Efficiency (Full Modulation)
- 95% Efficiency (Full Input)
- All Stainless Steel Tube for Enhanced Corrosion Protection
- Brass and Aluminum Fins for Improved Thermal Heat Transfer



100 MBH



400 MBH



PROJECT: _____

UNIT TAG: _____

Trane High Efficiency Gas-Fired Unit Heater



| Unit Capacity (MBH) | | 50 | 100 | 150 | 200 | 300 | 400 |
|--|---------------------|------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| PERFORMANCE DATA† | | | | | | | |
| Input - | BTU/Hr. (kW) | 50,000 (14.6) | 100,000 (29.3) | 150,000 (43.9) | 200,000 (58.6) | 300,000 (87.9) | 400,000 (117.2) |
| Output - | BTU/Hr. (kW) | 48,600 (14.2) | 96,000 (28.1) | 143,000 (41.8) | 192,000 (56.3) | 285,000 (83.5) | 384,000 (112.5) |
| Thermal Efficiency | (%) | 97 | 96 | 95 | 96 | 95 | 96 |
| Turn Down Ratio | | 3:1 | 3:1 | 3:1 | 3:1 | 3:1 | 3:1 |
| Modulating Control | | YES | YES | YES | YES | YES | YES |
| Free Air Delivery - | CFM (cu. m/s) | 790 (0.373) | 1,616 (0.763) | 2,661 (1.255) | 3,232 (1.525) | 4,848 (2.288) | 6,464 (3.050) |
| Outlet Velocity | FPM | 697 | 977 | 928 | 1,127 | 1,101 | 1,114 |
| Air Temperature Rise - | Deg. F (Deg. C.) | 57 (31.7) | 55 (30.6) | 50 (21.8) | 55 (30.6) | 55 (30.6) | 55 (30.6) |
| Heat Throw @ 20 ft. Mounting Height | ft. | N/A | 150 | N/A | 150 | 150 | 150 |
| Condensate Trap | | YES | YES | YES | YES | YES | YES |
| Condensate Discharge Size | in. | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| Condensate Production | gph | 0.41 | 0.73 | 1.06 | 1.38 | 1.71 | 3.0 |
| Full Load Amps at 120V | | 10.8 | 10.3 | 17.6 | 17.6 | 31.2 | 31.2 |
| Minimum Circuit Amps at 120V | | 11.5 | 11.8 | 19.1 | 19.1 | 33.9 | 33.9 |
| Max Overcurrent Protection at 120V | | 14.1 | 17.8 | 25.1 | 25.1 | 44.9 | 44.9 |
| MOTOR DATA: | Motor HP (Qty) | 1/14 (2) | 1/2 | 1/2 (2) | 1/2 (2) | 1 (2) | 1 (2) |
| | Motor kW | 0.05 | 0.37 | 0.37 | 0.37 | 0.74 | 0.74 |
| | Motor Type, ODP | SP | PSC | PSC | PSC | PSC | PSC |
| | RPM | 1,500 | 1,500 | 1,500 | 1,500 | 1,625 | 1,625 |
| | Amps @ 115V | 5.2 | 6.0 | 12.0 | 12.0 | 22.0 | 22.0 |
| VENTING & GAS CONNECTIONS | | | | | | | |
| Combustion Air Inlet Pipe Dia. - | in. (mm) | 2 (51) | 2 (51) | 2 (51) | 3 (76) | 4 (102) | 4 (102) |
| Combustion Air Intake Material | | PVC/CPVC | PVC/CPVC | PVC/CPVC | PVC/CPVC | PVC/CPVC | PVC/CPVC |
| * Flue Pipe Dia - | in. (mm) | 2 (51) | 2 (51) | 2 (51) | 3 (76) | 4 (102) | 4 (102) |
| Flue Material | | PVC/CPVC | PVC/CPVC | PVC/CPVC | PVC/CPVC | PVC/CPVC | PVC/CPVC |
| Venting Category | | IV | IV | IV | IV | IV | IV |
| Fuel Type | | NG/LP | NG/LP | NG/LP | NG/LP | NG/LP | NG/LP |
| Gas inlet - | in. | 1/2 | 1/2 | 1/2 | 1/2 | 3/4 | 3/4 |
| Min. Gas Pressure Natural | in. W.C. | 5 | 5 | 5 | 5 | 5 | 5 |
| Min. Gas Pressure LP | in. W.C. | 8 | 8 | 8 | 8 | 8 | 8 |
| Max. Gas Pressure Natural / LP | in. W.C. | 14 | 14 | 14 | 14 | 14 | 14 |
| CLEARANCES FOR SERVICE/COMBUSTIBLES | | | | | | | |
| Air Intake Side (Inch) | | 18 | 18 | 18 | 18 | 36 | 36 |
| Access Side (Inch) | | 18 | 18 | 18 | 18 | 18 | 18 |
| Non access side (Inch) | | 2 | 6 | 6 | 6 | 6 | 6 |
| Top (Inch) | | 2 | 6 | 6 | 6 | 6 | 6 |
| Bottom (Inch) | | 2 | 6 | 6 | 6 | 6 | 6 |

† Ratings shown are for unit installations at elevations between 0 and 2,000 feet (0 to 610m). For unit installations in U.S.A. above 2,000 feet (610m), the unit input must be field derated 4% for each 1,000 feet (305m) above sea level; refer to local codes, or in absence of local codes, refer to the latest edition of the National Fuel Gas Code, ANSI Standard Z223.1 (NFPA No. 54).

For installations in Canada, any reference to deration at altitudes in excess of 2,000 feet (610m) are to be ignored. At altitudes of 2,000 feet to 4,500 feet (610 to 1372m), the unit must be field derated and be so marked in accordance with the ETL certification. See HIGH ALTITUDE DERATION section of the installation and operation manual for deration information.

* Field installed PVC fittings provided with unit sizes 200-400 as follows:

- Size 200 units come with a 2" to 3" PVC reducer
- Size 300 units come with a 2" to 4" PVC reducer
- Size 400 units come with a 2" to 4" PVC drain tee fitting

Reducers/drain tee fittings are to be field installed per Venting instructions in the installation and operation manual.

LEGEND: ODP = Open Drip Proof, PSC = Permanent Split Capacitor, SP = Shaded Pole

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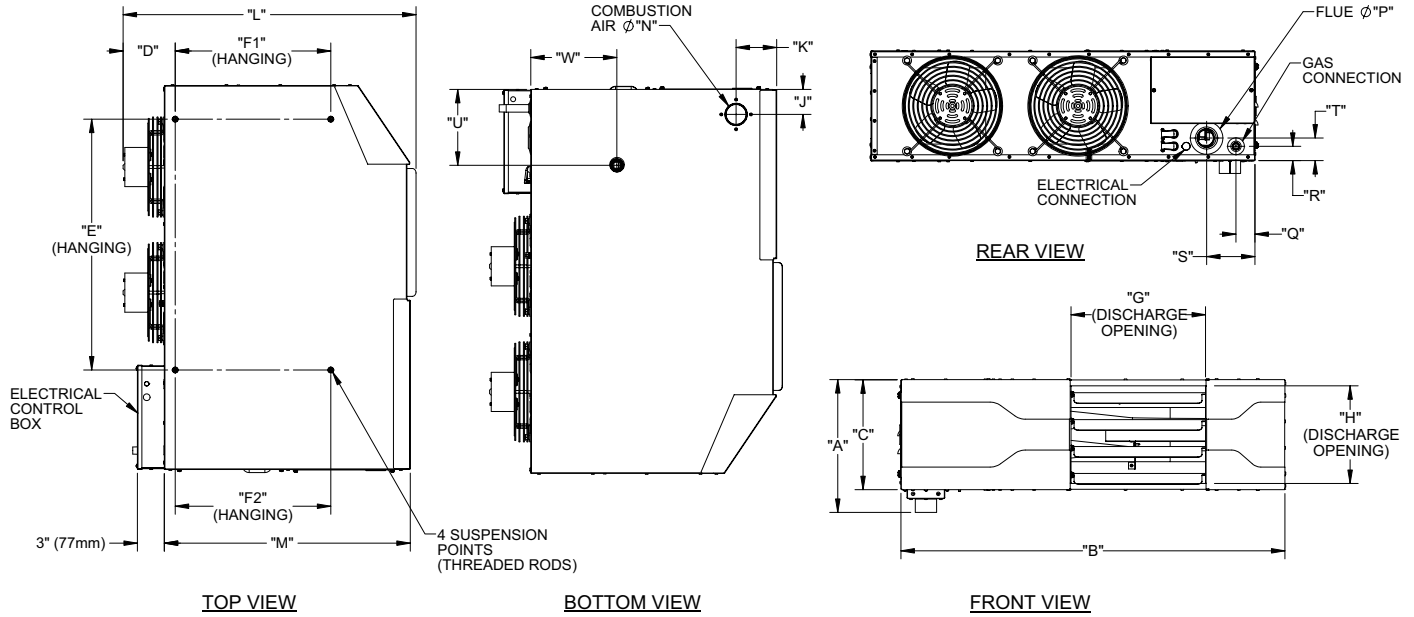


| Unit Capacity (MBH) | | 50 | 100 | 150 | 200 | 300 | 400 |
|--|------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| DIMENSIONAL DATA - inches (mm) | | | | | | | |
| "A" Height to Top of Combustion Air Inlet | | 13-5/8 (346) | 18-3/4 (476) | 18-3/4 (476) | 18-3/4 (476) | 27-1/8 (689) | 34-7/8 (886) |
| "B" Jacket Width of Unit | | 42-13/16 (1087) | 42-13/16 (1087) | 54-13/16 (1392) | 54-13/16 (1392) | 54-13/16 (1392) | 54-13/16 (1392) |
| "C" Unit Height | | 12-1/4 (311) | 17-1/4 (438) | 17-1/4 (438) | 17-1/4 (438) | 25-11/16 (653) | 33-7/16 (850) |
| "D" Depth to Rear of Housing | | 5-3/4 (147) | 11 (279) | 10-5/16 (261) | 11 (279) | 10-7/8 (277) | 11-1/2 (292) |
| "E" Hanging Distance Width | | 28 (710) | 27-15/16 (710) | 38 (965) | 38 (965) | 41-3/4 (1060) | 41-3/4 (1060) |
| "F1" Hanging Distance Depth | | 17-3/8 (440) | 17-1/4 (438) | 21-1/8 (537) | 21-1/4 (540) | 20 (508) | 20 (508) |
| "F2" Hanging Distance Depth | | 17-3/8 (440) | 17-1/4 (438) | 21-1/8 (537) | 21-1/4 (540) | 26 (660) | 26 (660) |
| "G" Discharge Opening Width | | 15 (381) | 15 (381) | 26 (660) | 26 (660) | 26 (660) | 26 (660) |
| "H" Discharge Opening Height | | 10-1/8 (256) | 15-7/8 (403) | 15-7/8 (403) | 15-7/8 (403) | 24-3/8 (619) | 32-1/8 (816) |
| "J" Side Panel to Centerline Combustion Air | | 2-3/4 (70) | 2-13/16 (71) | 3-3/4 (95) | 3-3/4 (95) | 3-3/4 (95) | 3-3/4 (95) |
| "K" Front Panel to Centerline Combustion Air | | 4-1/2 (114) | 4-1/2 (114) | 5-5/16 (135) | 5-5/16 (135) | 5-5/16 (135) | 5-5/16 (135) |
| "L" Overall Unit Depth | | 32-5/8 (829) | 38 (965) | 41 (1040) | 42 (1067) | 42 (1067) | 42 (1067) |
| "M" Side Depth | | 27-7/16 (697) | 27-7/16 (697) | 31-1/4 (794) | 31-1/4 (794) | 31-1/4 (794) | 31-1/4 (794) |
| "N" Combustion Air Inlet Connection Dia. | | 2 (51) | 2 (51) | 2 (51) | 3 (76) | 4 (102) | 4 (102) |
| "P" Flue Connection Diameter | | 2 (51) | 2 (51) | 2 (51) | 3 (76) | 4 (102) | 4 (102) |
| "Q" Side Panel to Centerline Gas Connection | | 2-1/8 (54) | 2-5/8 (67) | 2-5/8 (67) | 2-5/8 (67) | 2-5/8 (67) | 2-5/8 (67) |
| "R" Bottom Panel to Centerline Gas Connection | | 1-1/2 (40) | 2-1/2 (64) | 2-1/2 (64) | 2-1/2 (64) | 2-1/2 (64) | 2-1/2 (64) |
| "S" Side Panel to Centerline Flue | | 5-3/8 (137) | 5-1/8 (130) | 6-1/2 (165) | 6-1/16 (154) | 5-3/8 (137) | 5-3/8 (137) |
| "T" Bottom Panel to Centerline Flue | | 2-1/2 (64) | 4-5/8 (117) | 4-5/8 (117) | 4-5/8 (117) | 8-1/8 (206) | 13-1/8 (334) |
| "U" Side to Centerline Condensate Drain Connection | | 8-1/2 (216) | 8-1/2 (216) | 9-1/2 (241) | 9-1/2 (241) | 9-1/2 (241) | 9-1/2 (241) |
| "W" Rear to Centerline Condensate Drain Connection | | 9-9/16 (243) | 9-9/16 (243) | 10-9/16 (268) | 10-9/16 (268) | 10-1/8 (257) | 10-1/8 (257) |
| Approximate Unit Weight - | lb (kg) | 120 (54.4) | 180 (81.6) | 209 (94.8) | 260 (117.9) | 323 (146.5) | 385 (174.6) |
| Approximate Ship Weight - | lb (kg) | 168 (76.2) | 228 (103.4) | 254 (115.2) | 305 (138.3) | 388 (176.0) | 460 (208.6) |

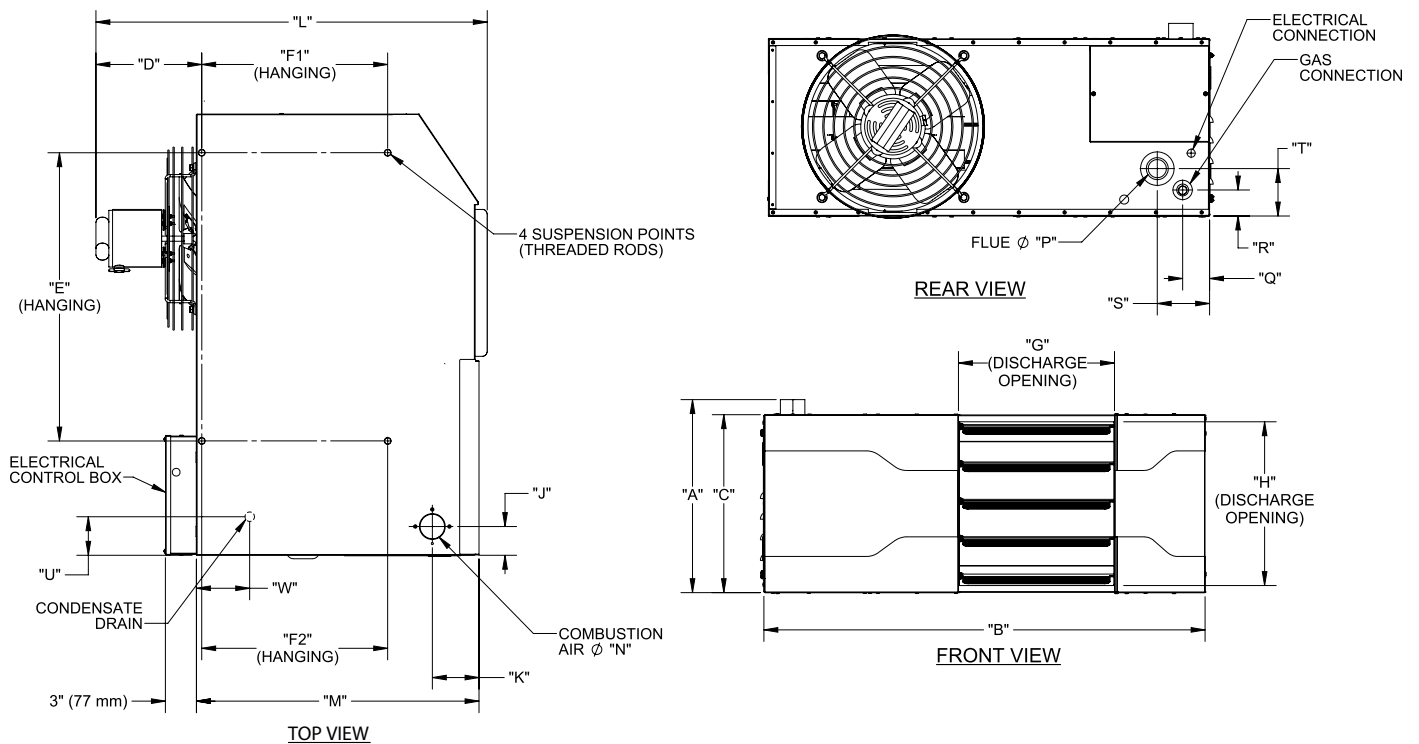
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HI050 Dimensional Data



HI100-HI400 Dimensional Data



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