

Specification Guide

UHRS & UHCM Series







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Efficiency

ADP gas-fired unit heaters deliver between 83% and 82% thermal efficiency. This excellent efficiency sets a new standard when using gas-fired unit heaters.

Reliability

ADP heater designs have proven superior for over a decade and during hundreds of thousands of hours in the toughest winter climates of North America and under extreme conditions in laboratory life cycle testing. ADP unit heaters have been designed to provide a long, trouble free service life.

Quality

Every heater undergoes continuous quality checks at all stages of manufacturing. After assembly, each heater is test fired and functionally tested to provide final assurance that it is performing in accordance with ADP's rigorous quality standards.

Approvals

All ADP heaters are built in the USA in an ISO 9001:2008 facility. The rating plate of each heater carries the mark signifying that the heater is design certified by CSA. In addition, the heater series is listed by the California Energy Commission (CEC).

Warranty

ADP unit heaters feature a standard 2-year limited warranty. For UHRS, and UHCM Series, the warranty provides extended coverage on aluminized heat exchangers for 10 years. For UHCM Series, the warranty provides extended coverage on stainless steel heat exchangers for 15 years.

Power Exhaust

All heaters have a sealed flue collector and a power exhaust system which enable conventional vertical venting or horizontal venting. Power exhaust, when used with horizontal venting, lowers operating cost because it reduces stack losses. It also allows the option of not penetrating the roof, or multiple floors. The versatile power exhaust (on some models) reduces installation cost further by allowing the exhaust to be directed upward, left or right, just by rotating the exhaust assembly.

In Shot Burners

These lightweight aluminized steel burners are maintenance-free and never require adjustment. The burner venturi mixes air and gas in the correct proportion for efficient combustion. The entire burner assembly is removable as one piece for ease of service.

Patented Tubular Heat Exchangers

Constructed of aluminized steel for superior resistance to corrosion and oxidation; for additional protection, some models have an optional stainless steel heat exchanger. The patented curving design provides for complete exposure of the heating surface to the supply air stream. Rounded surfaces minimize air resistance and permit air to surround all heat transfer surfaces for excellent heat transfer. Tubular design means lighter weight and significantly longer service life due to lower thermal-induced stresses.

Direct Spark Ignition

In combination with the 24-volt main gas valve with 100% shutoff for safety, the direct spark ignition control provides positive, reliable and safe main burner ignition. This eliminates the need for a pilot light, improving system efficiency and reliability. A separate flame sensor provides proof of main burner ignition. If loss of main burner flame should occur, the control will reinitiate ignition three times before locking out, thus reducing nuisance service calls. The unit will reinitiate ignition after the one hour lockout. The prepurge operation safety removes all gas and flue products from the system prior to ignition.

Cabinet

Constructed heavy gauge painted steel, each cabinet has a two-point suspension system for easy installation (larger and two-fan models have fourpoint suspensions). The wiring junction box is conveniently located on the side of the cabinet (UHCM only) for easy access and adequate protection.

Product Features

- Residential low profile units. •
- Great for garages & shops. •
- Sidewall venting eliminates roof penetrations. •
- Wiring junction box is located inside of unit.
- 1" clearance from ceiling for easy installation. •
- Now with 30% quitter operation compared to previous models. •
- Heating capacities from 30,000 105,000 BTUH. •
- Up to 85% thermal efficiency. •
- Self-diagnostic board with LED display improves • troubleshooting.
- Power exhaust system allows horizontal venting to 25 ft. •
- Patented tubular heat exchangers made of aluminized steel. •
- Aluminized steel in shot burners provide efficient trouble free operation. •
- Direct drive propeller fans are dynamically balanced for quiet and smooth operation.

Technical Data

| | Model | UHRS -30 [1] | UHRS -45 [1] | UHRS -60 | UHRS -75 | UHRS -90 | UHRS -105 |
|----------------------------|--|-----------------------|-----------------------|---------------------|---------------------|---------------------|---------------------|
| Gas Heating Performance | Heating Capacity Input (BTUH) | 30,000 | 45,000 | 60,000 | 75,000 | 90,000 | 105,000 |
| | NG Heating Output (BTUH) | 25,020 | 37,665 | 50,220 | 62,550 | 75,420 | 87,675 |
| | LP Heating Output (BTUH) | 25,560 | 38,385 | 51,180 | 63,825 | 77,130 | 89,250 |
| | Steady State Efficiency Natural Gas | 83% | 83% | 83% | 83% | 83% | 83% |
| | Steady State Efficiency LPG / Propane | 85% | 85% | 85% | 85% | 85% | 85% |
| | Temp Rise (deg F) | 37 | 52 | 47 | 65 | 43 | 59 |
| Connections | Flue Size Round (in) | 4 [2] | 4 [2] | 4 [2] | 4 ^[2] | 4 [2] | 4 [2] |
| Connections | Gas Piping Size (in, NPT) | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| | Num of Fans | 1 | 1 | 1 | 1 | 1 | 1 |
| | Diameter (in) | 10 | 10 | 14 | 14 | 16 | 16 |
| | Num of Blades | 4 | 4 | 4 | 4 | 4 | 4 |
| Fan Data | Motor Output (hp) | 1/25 | 1/25 | 1/15 | 1/15 | 1/10 | 1/10 |
| Fall Dala | Motor Full Load Amps | 0.45 | 0.45 | 0.9 | 0.9 | 1.5 | 1.5 |
| | Motor RPMs | 1550 | 1550 | 1075 | 1075 | 1075 | 1075 |
| | Air Volume (CFM) | 625 | 665 | 1000 | 1200 | 1600 | 1500 |
| | Throw Ft. | 27 | 29 | 34 | 41 | 46 | 43 |
| Physical Data | Overall Dimensions H x W x D (in) | 12.375 x 29 x 27.5 | 12.375 x 29 x 27.5 | 17.5 x 29 x 27.5 | 17.5 x 29 x 27.5 | 23 x 29 x 28.875 | 23 x 29 x 28.875 |
| | Ship Weight (lbs) | 60 | 65 | 90 | 95 | 120 | 125 |

[1] [2[Sold in pallet quantities of four(4) per model. No mix or match of models.

2 x 4 in. (51 x 102 mm) diameter adaptor is furnished with unit for flue connection.

Note: All models have aluminized steel heat exchanger; all models are 115 V, 60 Hz, 1 phase.



UHRS SERIES

Dimensions







BACK VIEW



| Model | A | ι. | Е | 3 | С | | |
|------------------------|--------|-----|-------|-----|-------|-----|--|
| No. | in. | mm | in. | mm | in. | mm | |
| UHRS-030A UHRS-045A | 12-3/8 | 314 | 6-1/2 | 165 | 3-7/8 | 98 | |
| UHRS-060A UHRS-075A | 17-1/2 | 445 | 6-1/4 | 159 | 6-1/8 | 156 | |
| UHRS-090A UHRS-105A | 23 | 584 | 7-7/8 | 200 | 9-1/8 | 232 | |

UHCM SERIES

Product Features

- Heating capacities from 125,000 400,000 BTUH.
- Up to 85% thermal efficiency.
- Stainless steel heat exchanger is available for longer product life.
- 2-stage models (see chart below) provide improved efficiency and system cycle reduction.
- Patented tubular heat exchangers made of aluminized steel or stainless steel.
- Aluminized steel in shot burners provide efficient trouble free operation.
- Sidewall venting eliminates roof penetrations.
- Now with 30% quitter operation compared to previous models.
- Wiring junction box is located outside of unit.
- Safe direct spark ignition. No standing pilot light.
- Self-diagnostic board with LED display improves troubleshooting efficiency and accuracy.
- 3/8 x 16 rivet nuts are located on the top of cabinet for suspending unit using threaded rod.
- Power exhaust system with a sealed flue collector allows conventional vertical or horizontal venting to 35 ft (depends on unit size).
- Direct drive propeller fans are dynamically balanced for quiet, smooth operation.

Technical Data

| | Model | UHCM -125 | UHCM -150 | UHCM -175 | UHCM -200 | UHCM -250 | UHCM -250-1 | UHCM -300 | UHCM -300-1 | UHCM -350 | UHCM -350-1 | UHCM -400 | UHCM -400-1 |
|------------------|--|------------------|------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | Heating Capacity Input BTUH (High Heat) | 125,000 | 150,000 | 175,000 | 200,000 | 250,000 | 250,000 | 300,000 | 300,000 | 350,000 | 350,000 | 400,000 | 400,000 |
| | Heating Capacity Input BTUH (Low Heat) | - | - | - | - | - | 162,500 | - | 195,000 | - | 225,000 | - | 254,000 |
| Gas Heating | Output Natural Gas (BTUH) | 103,750 | 124,500 | 145,250 | 166,000 | 207,500 | 207,500 | 246,000 | 246,000 | 290,500 | 290,500 | 328,000 | 328,000 |
| Performance | Output LPG/Propane (BTUH) | 106,250 | 127,500 | 148,750 | 170,000 | 212,500 | 212,500 | 252,000 | 252,000 | 294,000 | 294,000 | 336,000 | 336,000 |
| | Steady State Efficien- cy Natural Gas | 83% | 83% | 83% | 83% | 83% | 83% | 82% | 82% | 83% | 83% | 82% | 82% |
| | Steady State Efficien- cy LPG / Propane | 85% | 85% | 85% | 85% | 85% | 85% | 84% | 84% | 84% | 84% | 84% | 84% |
| | Flue Size Round (in) | 4 ^[1] | 4 ^[1] | 5 ^[2] | 6 ^[3] | 6 ^[3] | 6 ^[3] | 6 ^[3] |
| Connections | Gas Piping Size (in, NPT) | 1/2 | 1/2 | 1/2 | 1/2 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| | Number of Fans | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | Diameter (in) | 16 | 16 | 18 | 18 | 16 | 16 | 16 | 16 | 18 | 18 | 18 | 18 |
| | Stages | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | Number of Blades | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 |
| Fan Data | Motor Output (hp) | 1/5 | 1/5 | 1/3 | 1/3 | 1/5 | (2) 1/5 | 1/5 | (2) 1/5 | 1/3 | (2) 1/3 | 1/3 | (2) 1/3 |
| | Motor Full Load Amps | 5 | 5 | 7 | 7 | 8 | 8 | 8 | 8 | 11 | 11 | 11 | 11 |
| | Motor RPMs | 1075 | 1075 | 1075 | 1075 | 1075 | 1075 | 1075 | 1075 | 1075 | 1075 | 1075 | 1075 |
| | Air Volume (CFM) | 1950 | 1950 | 2350 | 2650 | 3400 | 4000 | 4000 | 4000 | 4500 | 5500 | 4750 | 5500 |
| | Throw Ft. | 49 | 49 | 52 | 59 | 60 | 60 | 71 | 71 | 70 | 70 | 78 | 78 |
| Physical Data | Overall Dimensions | 35-1/4 x | | | | | | | 35-1/4 x | | 35-1/4 x | 35-1/4 x | 35-1/4 x |
| | H x W x D (in) | 24 x 42- 1/2 | 24 x 42- 1/2 | 29-1/2 x 42-1/2 | 29-1/2 x 42-1/5 | 41-1/8 x 42-1/2 | 41-1/8 x 42-1/2 | 41-1/8 x 42-1/2 | 41-1/8 x 42-1/2 | 51-1/2 x 42-1/2 | 51-1/2 x 42-1/2 | 51-1/2 x 42-1/2 | 51-1/2 x 42-1/2 |
| | Ship Weight (lbs) | 167 | 177 | 190 | 200 | 310 | 310 | 330 | 330 | 340 | 340 | 380 | 380 |

1] 2-1/8 x 4 in. (54 x 102 mm) diameter adaptor is furnished with unit for flue connection.

[2] 2-1/4 x 2-3/4 in. (57 x 70 mm) rectangular to 5 in. (127 mm) round adaptor is furnished with unit for flue connection.

[3] 2-1/4 x 2-3/4 in. (57 x 70 mm) rectangular to 6 in. (152 mm) round adaptor is furnished with unit for flue connection.

All models are 115 volts, 60 Hz, 1 phase.

Note: UHCM unit heaters are not approved for residential applications.



UHCM SERIES

Commercial Unit Heaters

Dimensions

NOTE: Single fan model shown. UHCM models 250, 300, 350 and 400 have two fans.







| | | FRONT VIEW | SIDE VIEW | | | | | |
|----------------------|--------|------------|-----------|-----|--------|-----|-------|-----|
| Model | A | \ | E | 3 | (| 2 | D | |
| No. | in. | mm | in. | mm | in. | mm | in. | mm |
| UHCM-125 UHCM-150 | 19-1/2 | 495 | 18-1/2 | 470 | 12-1/4 | 311 | 4-3/4 | 121 |
| UHCM-175 UHCM-200 | 25 | 635 | 23-3/4 | 603 | 9-1/2 | 241 | 3 | 76 |

| | A | ۸ | В | | С | | |
|----------------------|--------|------|---------|------|---------|-----|--|
| Model No. | in. | mm | in. | mm | in. | mm | |
| UHCM-250 UHCM-300 | 37-5/8 | 956 | 36- 1/2 | 927 | 15- 7/8 | 403 | |
| UHCM-350 UHCM-400 | 47 | 1194 | 45- 3/4 | 1162 | 20-1/2 | 521 | |



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2140 Lake Park Boulevard Richardson, TX 75080 www.adpnow.com