



LAARS[®] **NEOTHERM[®]**

**High Efficiency Modulating
Volume Water Heaters**

PACKED WITH FEATURES

- Large Color Touch Screen
- Less than 10ppm NOx
- 6 Models, 285 to 850 MBH
- Vent up to 100 Feet, Horizontal or Vertical
- Meets Low Lead Requirements

LAARS[®] 
Heating Systems Company

LAARS[®] NEOTHERM[®]

Volume Water Heater



NeoTherm is a direct vent, sealed combustion, condensing volume water heater with ultra-high thermal efficiency that modulates with a 5 to 1 turndown.



Low NO_x emissions (<10ppm) and meets low lead installation requirements for a package that's easy to use and easy on the environment.



Available as model 285 MBH for natural gas or propane, and five models (399-850 MBH) for propane. These models are offered with a selection of factory mounted options making them suitable for a broad variety of residential and commercial applications.

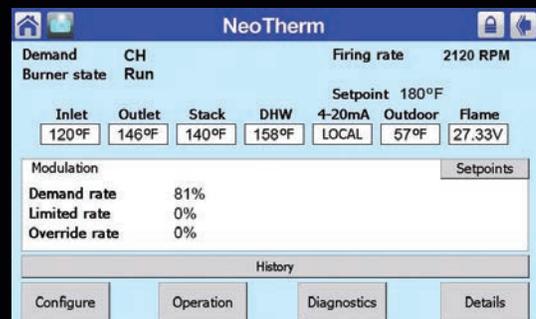


The heater features an ASME stainless steel heat exchanger, direct spark ignition system, optional heater pump and LAARS integrated control system.



NEOTHERM[®] INTEGRATED CONTROLS FEATURES:

- Large, easy to navigate color touch screen
- Easy to use menus for login, quick start, advanced setup, tests and diagnostics
- Integrated PID temperature and ignition control
- Accepts 4-20mA or 0-10VDC input for modulation
- Lead Lag with up to 8 other NeoTherm volume water heaters
- Quick start feature for easy one boiler setups
- Complete diagnostics for analog and digital inputs
- Test feature allows for forced min and max firing
- Display holds, alerts and errors in clear text form
- Password protected parameters for installer use
- Modbus capable



LAARS® NEOTHERM® VOLUME WATER HEATER FEATURES



NeoTherm Features:

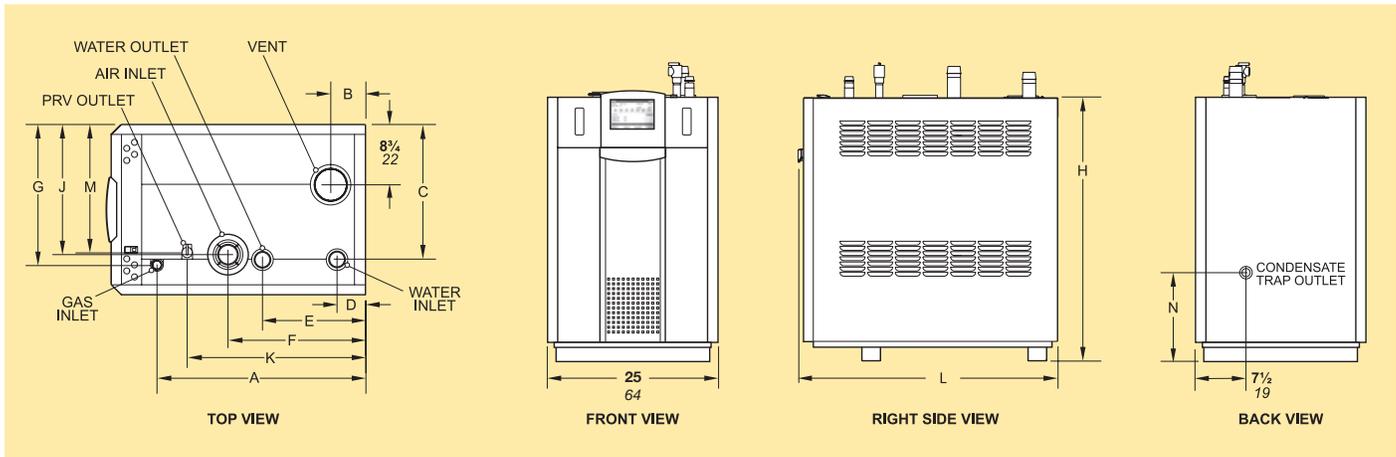
- All connections are on top of unit
- Easy to service
- Low NOx system
- LAARS Integrated Control System™
- Integrates with Building Automation Systems
- Meets NSF/ANSI-372 Low Lead Content Certification (MT2V)

Standard Equipment:

- High condensing efficiency
- Horizontal or vertical direct vent
- 5:1 turndown
- Vent and air pipe lengths of up to 100 equivalent feet (each)
- Built-in condensate trap
- Spark ignition system
- Sensor for domestic water tank
- 160 psi maximum working pressure
- Stainless steel heat exchanger with welded construction (no gaskets)
- Optional pumps (sized to model) available for field installation
- ASME "H" stamp
- Water flow switch (399 & 850)
- 125 psi (861 kPa) ASME rated pressure relief valve
- Temperature & pressure gauge
- Drain valve
- Alarm output
- On/off toggle switch
- Manual reset high limit
- Burner sight glass
- Zero clearance to combustible surfaces for alcove and closet installations
- 8 year limited warranty

| Size | Natural Gas | Size | Input | | Output | |
|---------|-------------|------|-------|-------|--------|-------|
| | | | MBH | kW | MBH | kW |
| NTV 285 | X | X | 285 | 83.5 | 270.8 | 79.3 |
| NTV 399 | N/A | X | 399 | 116.8 | 383.0 | 112.3 |
| NTV 500 | N/A | X | 500 | 146.4 | 480.0 | 141.1 |
| NTV 600 | N/A | X | 600 | 175.7 | 582.0 | 170.5 |
| NTV 750 | N/A | X | 750 | 219.6 | 705.0 | 206.7 |
| NTV 850 | N/A | X | 850 | 248.9 | 816.0 | 239.1 |

Dimensional Data



Laars NeoTherm®

| Size | A | | B | | C | | D | | E | | F | | G | | H | | J | | K | | L | | M | | N | | Shipping Weight | | Connections | |
|---------|--------|-----|-------|----|--------|----|-------|----|--------|----|--------|-----|--------|----|--------|----|--------|----|--------|----|--------|-----|--------|----|-------|----|-----------------|-----|-------------|-------|
| | in | cm | in | cm | in | cm | in | cm | in | cm | in | cm | in | cm | in | cm | in | cm | in | cm | in | cm | in | cm | in | cm | lbs | kg | Gas | Water |
| NTV 285 | 20 1/4 | 52 | 7 1/4 | 19 | 19 3/4 | 50 | 4 1/4 | 16 | 11 1/4 | 29 | 13 1/2 | 34 | 14 | 36 | 38 3/4 | 97 | 15 | 38 | 17 | 43 | 26 3/4 | 68 | 18 3/4 | 48 | 13 | 33 | 299 | 136 | 3/4NPT | 2NPT |
| NTV 399 | 25 | 64 | 5 1/4 | 13 | 19 3/4 | 50 | 4 1/4 | 11 | 14 3/4 | 37 | 18 1/2 | 47 | 19 1/4 | 49 | 38 3/4 | 97 | 16 1/2 | 42 | 21 3/4 | 55 | 31 1/2 | 80 | 18 3/4 | 48 | 13 | 33 | 364 | 165 | 3/4NPT | 2NPT |
| NTV 500 | 30 1/4 | 77 | 5 1/4 | 13 | 19 3/4 | 50 | 4 1/4 | 11 | 15 1/4 | 38 | 20 | 51 | 20 1/2 | 52 | 38 3/4 | 97 | 19 | 48 | 26 | 66 | 37 3/4 | 96 | 18 3/4 | 48 | 13 | 33 | 419 | 190 | 1NPT | 2NPT |
| NTV 600 | 29 3/4 | 76 | 5 | 13 | 19 1/2 | 50 | 4 1/4 | 11 | 15 | 38 | 20 | 51 | 3 | 8 | 38 3/4 | 97 | 19 | 48 | 26 | 66 | 37 3/4 | 96 | 18 3/4 | 48 | 8 1/4 | 21 | 426 | 193 | 1NPT | 2NPT |
| NTV 750 | 35 1/2 | 90 | 6 | 15 | 19 1/2 | 50 | 5 1/4 | 13 | 19 | 48 | 40 1/2 | 103 | 3 1/4 | 8 | 38 3/4 | 97 | 19 | 48 | 30 3/4 | 78 | 51 | 130 | 18 3/4 | 48 | 8 1/4 | 21 | 481 | 218 | 1 1/2NPT | 2NPT |
| NTV 850 | 39 3/4 | 101 | 6 | 15 | 19 1/2 | 50 | 5 1/4 | 13 | 19 | 48 | 44 1/2 | 114 | 3 1/2 | 9 | 38 3/4 | 97 | 19 | 48 | 35 | 89 | 55 1/4 | 130 | 18 3/4 | 48 | 8 1/4 | 21 | 503 | 228 | 1 1/2NPT | 2NPT |



View our entire product line at www.Laars.com



LAARS[®] 
Heating Systems Company

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