

LNVx

Suspended Warm Air Unit Heater
Natural Gas & LPG Fired Options



Overview

The Powrmatic LNVx is a ErP compliant warm air suspended natural gas/LPG heater supplied with a high-low burners as standard. The LNVx is a compact and efficient heater which provides climate control for many industrial and commercial application.

Models Available

- LNVx F - Axial Fan Crossflow Units
- LNVx CCF - Centrifugal Close Coupled Fan Units
- LNVx V - Axial Fan Downflow Units
- LNVx D - Ducted No Fan Unit
- LNVx Duo - Axial Fan Bi-Directional Units

Product Features

- Widest range of sizes, twelve capacities from 15 to 140kW
- Standard axial fan heater throws up to 45m.
- Compact space saving dimensions, designed to be room sealed or power flued with vertical or horizontal options
- Most comprehensive model range including Axial Fan, Centrifugal Fan (with or without fan plenum), Axial fan downflow, Bi-Directional and Duct Package.
- Low NOx and high energy output with highest efficiency without condensing, simple and efficient high - low burner control.
- Designed for strength, rigidity and long service life with minimal noise levels.
- 409 and 316 stainless steel heat exchanger upgrades available for harsh environments.

Specification

- LNVx heat exchanger will be manufactured as standard from aluminised steel tube with swaged and expanded connections into a combustion gas collection box, no welding is used to minimise stress on components.
- The four pass tubular heat exchanger can be specified with upgrade to 409 and 316 stainless steel.
- Individual in shot burners per heat exchanger tube to be fitted with Resistohm Helical Low NOx inserts capable of maximum continual 1300°c operation.
- Heaters will be capable of use with G20 Natural Gas or G31 LPG with injector change.
- LNVx will be supplied with a high-low burner gas valve assembly as standard, modulation can be specified as an option.
- To achieve designed coverage and throw the supply fan airflow will remain constant through the high-low fire operation.
- The casing will be designed for rigidity and low noise, anti-vibration mounts will be utilized to secure the main fan assemblies.
- There will be six top suspension points for ease of installation and additional security.
- Units will be complete with easy access swing out burner wiring panels.
- NOx Levels will be less than 96mg/kWhr and Useful efficiency will be more than 90%.
- Heater casing will be protected by epoxy powder coat stove baked paint RAL 7015.
- Controlled by Powrmatic MC200 Optimised Start Control.

Technical Performance

LNVx

| Model | | | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 60 | 70 | 90 | 120 | 140 | |
|--|------------------------|-------------|-----------|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|----------|
| Output (nominal) | High Fire (max) | kW | 14.5 | 19.0 | 24.0 | 30.0 | 34.0 | 37.5 | 44.0 | 50.5 | 60.0 | 70.0 | 90.0 | 118.5 | 137.0 | |
| | Low Fire (min) | kW | 8.6 | 12.7 | 16.3 | 19.8 | 23.8 | 25.5 | 29.8 | 33.9 | 40.8 | 46.7 | 65.3 | 83.5 | 93.3 | |
| Input (nett CV) | High Fire (max) | kW | 15.5 | 20.5 | 26.0 | 32.5 | 36.5 | 40.5 | 47.0 | 54.5 | 66.0 | 74.0 | 97.5 | 127.0 | 146.0 | |
| | Low Fire (min) | kW | 9.53 | 14.07 | 18.16 | 22.4 | 26.08 | 28.17 | 32.46 | 37.41 | 45.07 | 51.67 | 71.65 | 90.83 | 101.16 | |
| NOx Seasonal (Gross) | | mg/kWh | <96.0 | <96.0 | <96.0 | <96.0 | <96.0 | <96.0 | <96.0 | <96.0 | <96.0 | <96.0 | <96.0 | <96.0 | <96.0 | |
| Seasonal Space Heating Energy Efficiency | | % hs,h | 72.4% | 72.1% | 72.1% | 72.3% | 74% | 72.8% | 74.4% | 72.8% | 74.4% | 72.1% | 72.1% | 73.7% | 73.7% | |
| Airflow Volume | LNVx F/CCF/V | m³/s | 0.42 | 0.56 | 0.78 | 0.97 | 1.11 | 1.18 | 1.51 | 1.51 | 1.83 | 1.94 | 2.81 | 3.56 | 3.75 | |
| | | Min | m³/s | 0.42 | 0.56 | 0.78 | 0.97 | 1.11 | 1.18 | 1.51 | 1.51 | 1.83 | 1.94 | 2.81 | 3.56 | 3.75 |
| | LNVx D | Max | m³/s | 0.46 | 0.62 | 0.86 | 1.20 | 1.22 | 1.30 | 1.67 | 1.67 | 2.02 | 2.14 | 3.09 | 3.91 | 4.13 |
| Airflow | Throw | LNVx F | m | 10.0 | 14.0 | 20.0 | 23.0 | 28.0 | 30.0 | 35.0 | 35.0 | 38.0 | 42.0 | 44.0 | 45.0 | 45.0 |
| | Fan Static | LNVx CCF | Pa | 220 | 320 | 220 | 220 | 200 | 150 | 250 | 250 | 250 | 250 | 180 | 290 | 250 |
| Electrics | Supply | Standard | V/ph/Hz | 230/1/50 | | | | | | | | | | | | |
| | | Optional* | V/ph/Hz | 400/3/50 *on Centrifugal Units Only. 3Ph units shown in brackets () | | | | | | | | | | | | |
| | LNVx F | Run | amp | 0.40 | 0.45 | 0.52 | 0.65 | 1.14 | 0.85 | 1.53 | 1.57 | 2.30 | 2.20 | 3.06 | 4.35 | 4.45 |
| | LNVx CCF | Start | amp | 5.0 | 8.5 | 13.3 | 13.3 | 15.6 | 18.0 | 26.3 | 26.3 | 29(16.5) | 38(18) | 31.0 | 40(14.9) | 44(16.8) |
| Run | | amp | 2.0 | 3.1 | 4.2 | 4.3 | 4.7 | 5.8 | 7.6 | 7.6 | 10(4.8) | 11(5.3) | 12.8 | 17(4.6) | 20(4.9) | |
| Fuel | Connection | | BSP/Rc | ¾" | | | | | | | | | | | 1" | |
| | Nominal Inlet Pressure | Nat Gas | mbar | 20.0 | | | | | | | | | | | | |
| | | LPG | mbar | 37.0 | | | | | | | | | | | | |
| | Consumption | Nat Gas | m³/h | 1.64 | 2.17 | 2.75 | 3.44 | 3.86 | 4.29 | 4.97 | 5.77 | 6.98 | 7.83 | 10.32 | 13.44 | 15.45 |
| LPG | | m³/h | 0.63 | 0.83 | 1.06 | 1.06 | 1.52 | 1.66 | 1.90 | 2.20 | 2.65 | 3.16 | 4.01 | 5.10 | 5.90 | |
| Mounting Height | LNVx F/Duo Crossflow | Min | m | 2.5 | | | | | 3.0 | | | | | | | |
| | | Max | m | 3.0 | | | | 3.5 | | 5.0 | | | | | | |
| | LNVx V Downflow | Min | m | 2.5 | 4.0 | | | | 5.0 | | | | 6.0 | | | |
| | | Max | m | 3.0 | 6.0 | | | 7.0 | | 8.0 | | | 10.0 | 12.0 | | |
| Overall Dims | LNVx F | Height | mm | 430 | 500 | 570 | 670 | 532 | 720 | 684 | 684 | 760 | 912 | 810 | 975 | 1140 |
| | | Width | mm | 997 | 997 | 997 | 997 | 1325 | 997 | 1325 | 1325 | 1325 | 1325 | 1950 | 1950 | 1950 |
| | | Depth | mm | 800 | 869 | 819 | 834 | 918 | 839 | 938 | 938 | 915 | 915 | 938 | 915 | 915 |
| Install Clearance | LNVx F | Top | mm | 200 | | | | | | | | | | | | |
| | | LH Side | mm | 200 | | | | | | | | | | | | |
| | | RH Side | mm | 1000 | | | | | | | | | | | | |
| | | Rear | mm | 400 | | | | | | | | | | | | |
| Flue | Diameter | | mm Ø | 80 | 80 | 80 | 100 | 100 | 100 | 100 | 100 | 130 | 130 | 130 | 130 | 130 |
| | Max Length | Flue Only | m | 12 | | | | | | | | | | | | |
| | | Room Sealed | m | 6 | | | | | | | | | | | | |
| Combustion Air Spigot | | mm Ø | 80 | 80 | 80 | 100 | 100 | 100 | 100 | 100 | 130 | 130 | 130 | 130 | 130 | |
| Noise Levels | LNVx F | dB(A) | 48 | 47 | 47 | 50 | 50 | 58 | 59 | 59 | 60 | 60 | 63 | 64 | 64 | |
| | LNVx CCF | dB(A) | 55 | 55 | 54 | 54 | N/A | 60 | 60 | 61 | 62 | 62 | 66 | 67 | 67 | |
| Nett Weight | LNVx F | kg | 59.5 | 73.0 | 76.5 | 81 | 84.0 | 103 | 122 | 122 | 135 | 149 | 202 | 238 | 286 | |
| | LNVx CCF | kg | 71.0 | 83.6 | 86.4 | 94 | N/A | 122 | 143 | 143 | 170 | 213 | 329 | 364 | 430 | |
| Model | | | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 60 | 70 | 90 | 120 | 140 | |

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