

Condensing Gas Hydro-furnace

- Certified design according to the latest edition of **ANSI Z21.47 / CSA 2.3** and **Z21.13 / CSA 4.9**
- Certified by **Intertek, AHRI, ASME, SCAQMD** (Rule 1111 for NOx emissions of 14 ng/J or 20 ppm at 3% O₂), **24 CFR Part 3280** for Manufactured Homes
- Compatible with **Natural Gas (NG)** and **Propane (LP)***
*requires installation of included Field Conversion Kit by qualified installer, servicer, or gas supplier
- **AFUE Ratings - 97% (NG/LP)**

Upflow	NPF700-060U3BH / NPF700-080U3BH / NPF700-100U5CH
Horizontal	NPF700-060H3BH / NPF700-080H3BH / NPF700-100H5CH
Downflow	NPF700-060D3BH / NPF700-080D3BH / NPF700-100D5CH
- **Variable Capacity Operation** - modulating burner and blower work together to provide an industry leading 15% to 100% firing rate
- **Durable Stainless Steel Combustion Heat Exchanger** - located out of the air stream creates one of the quietest furnaces available on the market
- Compatible with **2" PVC** vent up to 70 ft** and **3" PVC** vent up to 140 ft**
**with no elbows
- **EZNav™** back-lit Control Panel - Startup and Service Wizards provide intuitive configuration. Diagnostics are streamlined for easy access.
- **Low Voltage Terminal Strip** - contacts for 1-2 stage Thermostats, Humidifier, Dehumidifier, Humidistat, Outdoor Reset, Safety Shutdown input and Alarm output
- **Line Voltage Contacts** - for use with field accessories
- **Outdoor Reset Sensor** - optional accessory that adjusts the furnace operation based on outdoor temperature for maximum comfort and efficiency
- **High Altitude Conversion Kit** - factory supplied for installations up to 10,100 ft.
- **Auto-Water Fill** or manual fill provide installation flexibility
- Cleanable **external condensate trap** (upflow) - left or right convertible
- **ECM variable speed blower motor** - provides quiet, efficient operation
- **Flame Rod & Igniter** - located to provide easy access for maintenance
- **Limited Lifetime Combustion Heat Exchanger Warranty** - 10 year Parts / 1 year Labor (must be registered as Residential)
- **Commercial Warranty****** - 10 year Heat Exchanger / 1 year Parts / 1 year Labor
**** see Navien Limited Warranty terms



Optional Accessories



Residential Neutralizer
GXXX002212

Residential Replacement Media
GXXX001323



Outdoor Sensor & Wire
30012950A



Return Air Box
GXXX002427 (for 60/80k)
GXXX002398 (for 100k)

Condensing Gas Hydro-furnace

Specifications (Up/Downflow)

Items		NPF700-060U3BH NPF700-060D3BH	NPF700-080U3BH NPF700-080D3BH	NPF700-100U5CH NPF700-100D5CH
Applications		Residential, Light Commercial, Manufactured/Mobile/Modular Homes		
Installation Type		Up/Downflow		
Venting Type		Forced Draft Direct Vent		
Maximum Vent Length	2 in	70 ft		
	3 in	140 ft		
Ignition		Electronic Ignition		
Natural Gas Supply Pressure (from source)		3.5 in–10.5 in WC		
Propane Gas Supply Pressure (from source)		8.0 in–13.0 in WC		
Natural Gas Manifold Pressure		-0.01 to -0.02 in WC		
Propane Gas Manifold Pressure		-0.01 to -0.02 in WC		
Gas Connection Size		½ in NPT		
Water Connection Size		¼ in NPT		
Condensate Drain Size		¾ in NPT		
Materials	Casing	Painted steel with corrosion resistant coating		
	Combustion Heat Exchanger	Stainless Steel		
	Hydronic Heat Exchanger	Copper & Aluminum		
Venting	Exhaust	2 in or 3 in PVC, CPVC, approved polypropylene* / 2 in or 3 in Special Gas Vent Type BH (Class III, A/B/C) / 2 in or 3 in Stainless Steel		
	Intake	2 in or 3 in PVC, CPVC, polypropylene / 2 in or 3 in Special Gas Vent Type BH (Class III, A/B/C) / 2 in or 3 in Stainless Steel, ABS		
	Vent Clearance	0 in to combustibles		
Safety Devices		Flame Rod, Ignition Operation Detector, Water Temperature High Limit Switch, High Limit Sensor for Exhaust Temperature, Vent Installation Detector (VID), Water Level Sensor, Burner High Limit Sensor, Pressure Relief Valve (PRV)		
Dimensions [in (CM)], WxDxH		17.5x31x34.5 (44.5x78.5x87.7)	17.5x31x34.5 (44.5x78.5x87.7)	21x31x34.5 (53.5x78.5x87.7)
Shipping Weight [LB (kg)]		145.0 (65.8)	145.0 (65.8)	167.6 (76.0)
Power Supply		120V AC, 60Hz		
Max Current (A)		10.9	10.9	14.3
CKT BKR Amps (A)		15	15	20
Wire Size (AWG)		14		



NPF700 Series Hydro-furnace Technical Data Sheet

Condensing Gas Hydro-furnace

Specifications (Horizontal)

items		NPF700-060H3BH	NPF700-080H3BH	NPF700-100H5CH
Installation Type		Horizontal Left		
Venting Type		Forced Draft Direct Vent		
Maximum Vent Length	2 in	70 ft		
	3in	140 ft		
Ignition		Electronic Ignition		
Natural Gas Supply Pressure (from source)		3.5 in–10.5 in WC		
Propane Gas Supply Pressure (from source)		8.0 in–13.0 in WC		
Natural Gas Manifold Pressure		-0.01 to -0.02 in WC		
Propane Gas Manifold Pressure		-0.01 to -0.02 in WC		
Gas Connection Size		½ in NPT		
Water Connection Size		¼ in NPT		
Condensate Drain Size		¾ in NPT		
Materials	Casing	Corrosion resistant baked on pre-painted steel		
	Combustion Heat Exchanger	Stainless Steel		
	Hydronic Heat Exchanger	Copper & Aluminum		
Venting	Exhaust	2 in or 3 in PVC, CPVC, approved polypropylene* / 2 in or 3 in Special Gas Vent Type BH (Class III, A/B/C) / 2 in or 3 in Stainless Steel		
	Intake	2 in or 3 in PVC, CPVC, polypropylene / 2 in or 3 in Special Gas Vent Type BH (Class III, A/B/C) / 2 in or 3 in Stainless Steel, ABS		
	Vent Clearance	0 in to combustibles		
Safety Devices		Flame Rod, Ignition Operation Detector, Water Temperature High Limit Switch, High Limit Sensor for Exhaust Temperature, Vent Installation Detector (VID), Water Level Sensor, Burner High Limit Sensor, Pressure Relief Valve (PRV)		
Dimensions [in (CM)], WxDxH		34.5x31x17.5 (87.7x78.5x44.5)	34.5x31x17.5 (87.7x78.5x44.5)	34.5x31x21 (87.7x78.5x53.5)
Shipping Weight [LB (kg)]		145.0 (65.8)	145.0 (65.8)	167.6 (76.0)
Power Supply		120V AC, 60Hz		
Max Current (A)		10.9	10.9	14.3
CKT BKR Amps (A)		15	15	20
Wire Size (AWG)		14		

Condensing Gas Hydro-furnace

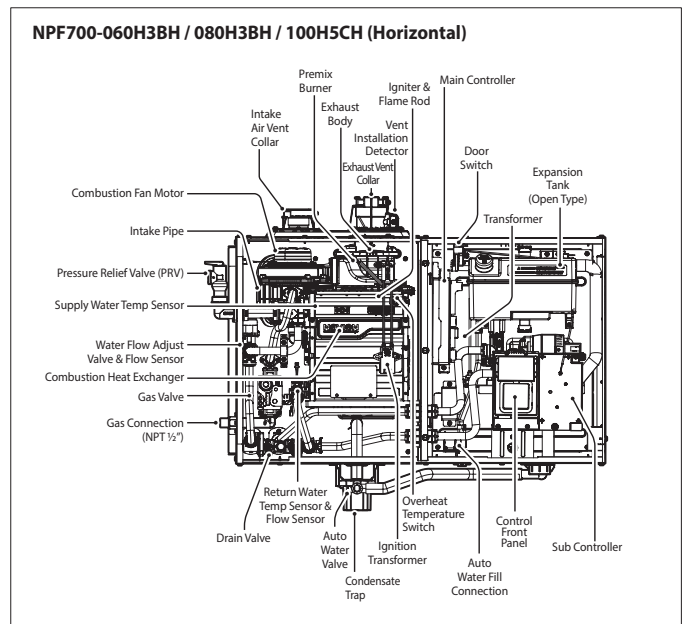
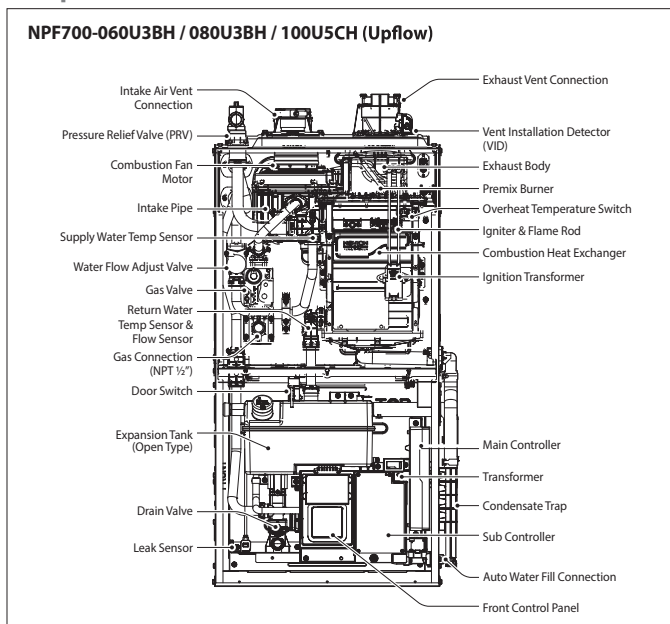
Heating Capacity and Efficiency

Items		NPF700-060U3BH NPF700-060H3BH NPF700-060D3BH	NPF700-080U3BH NPF700-080H3BH NPF700-080D3BH	NPF700-100U5CH NPF700-100H5CH NPF700-100D5CH
Installation Type		Upflow/Horizontal (Left)/Downflow		
Heating (Gas input) Natural/Propane Gas [BTU/H]	Max Heat	60,000	80,000	100,000
	Min Heat	9,000	11,000	14,000
AFUE(%)		97	97	97
Certified Temperature Rise Range [°F(°C)]	Max Heat	45-75 (25-42)		
	Min Heat	5-35 (3-19)	10-40 (6-22)	10-40 (6-22)
Burner Control		Modulating		

Airflow Capacity and Blower Data

Items		NPF700-060U3BH NPF700-060H3BH NPF700-060D3BH	NPF700-080U3BH NPF700-080H3BH NPF700-080D3BH	NPF700-100U5CH NPF700-100H5CH NPF700-100D5CH
Installation Type		Upflow/Horizontal (Left)/Downflow		
External Static Pressure (in.W.C)	Heating	0.1-1.0		
	Cooling			
Airflow Delivery Range [CFM] (Rated ESP)	Max Heat	720-1,200	950-1,400	1,200-2,000
	Min Heat	400	400	500
	Cooling	1,200	1,200	2,000
Nominal Cooling Capacity (TON)	@400CFM	1.5-3.0	1.5-3.0	2.0-5.0
	@350CFM	1.5-3.5	1.5-3.5	2.0-5.5
Circulator Blower	DxW (in)	12x10	12x10	12x12
	Horsepower	1/2	1/2	1
	Motor Full Load Amps	7.6	7.6	11
	Motor Speed & Type	Variable, Electronically Commutated (ECM)		

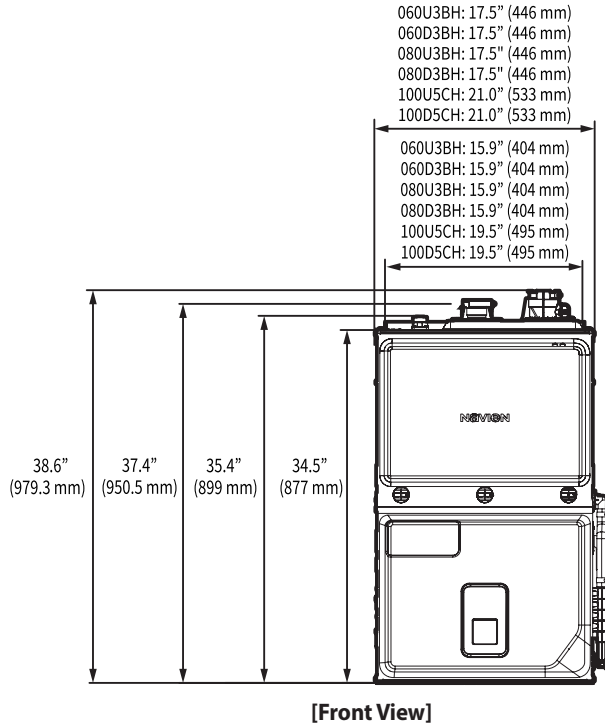
Components



Condensing Gas Hydro-furnace

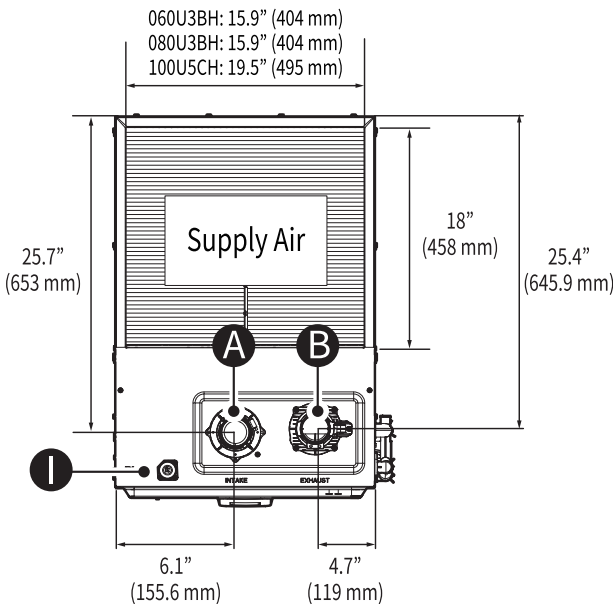
Dimensions

NPF700-060U3BH / 080U3BH / 100U5CH / 060D3BH / 080D3BH / 100D5CH

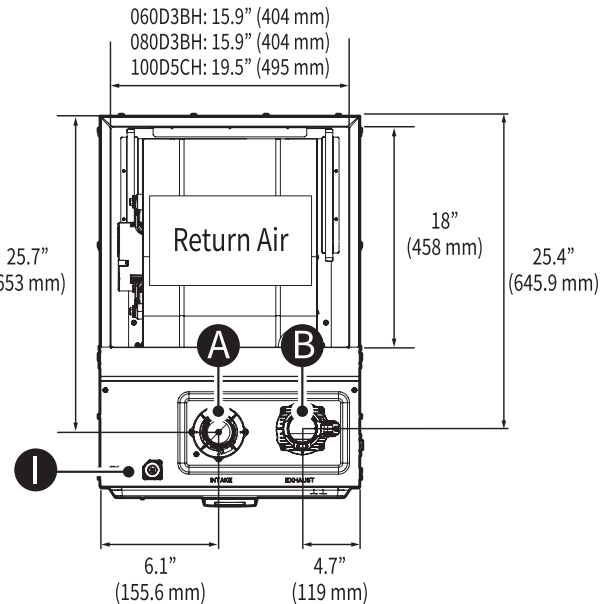


	Description	Diameter
A	Air intake	2 in
B	Exhaust gas vent	2 in
C	Gas connection	1.8 in (NPT ½")
D	Condensate drain	¾ in (Ø19 mm)
E	Overflow connection	1.8 in (Ø44.5 mm)
F	Electrical connection low voltage	0.9 in (Ø22.2 mm)
G	Electrical connection line voltage	0.9 in (Ø22.2 mm)
H	Water supply connection	NPT ¼"

[Connections Size]



[Top View - Upflow]

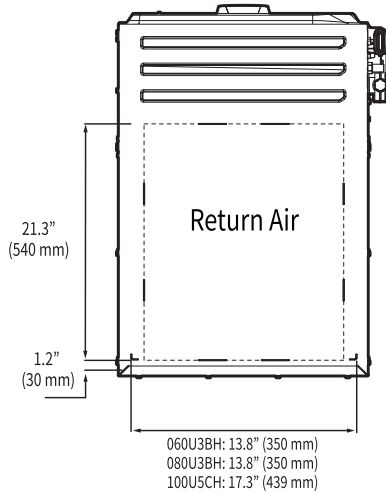


[Top View - Downflow]

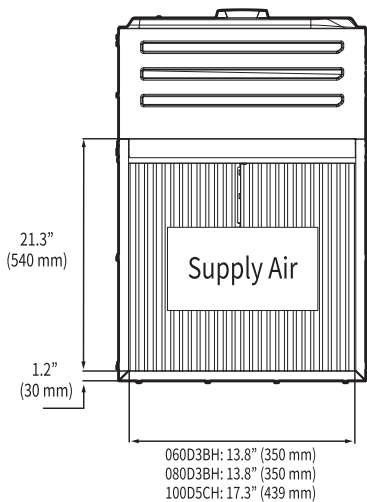
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Dimensions

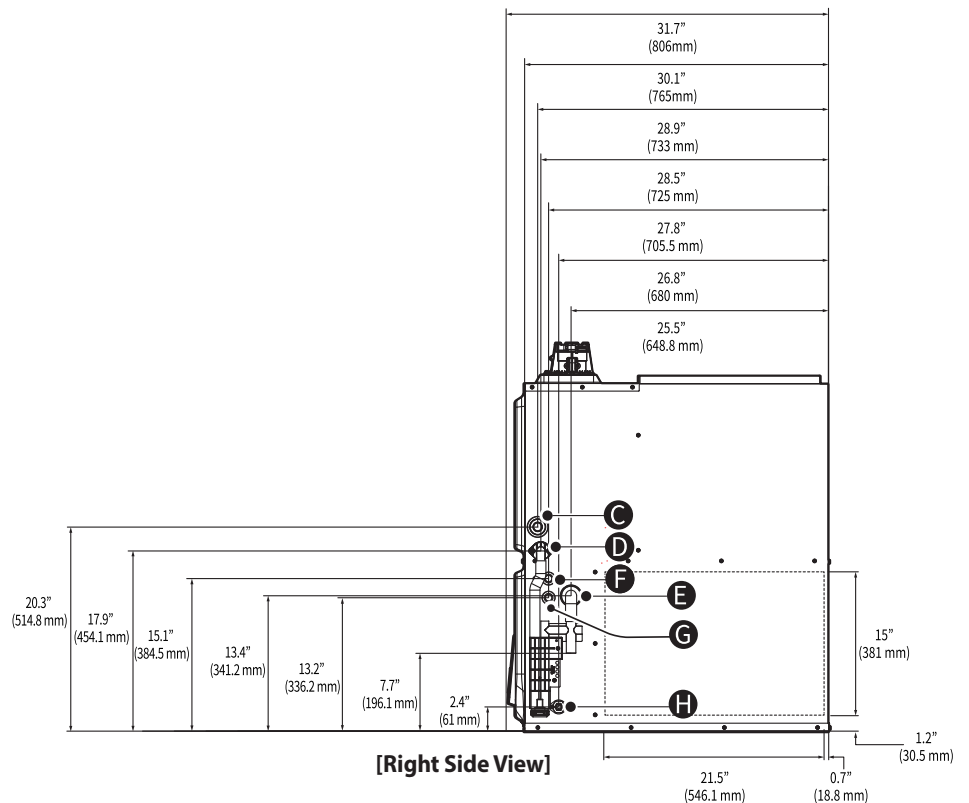
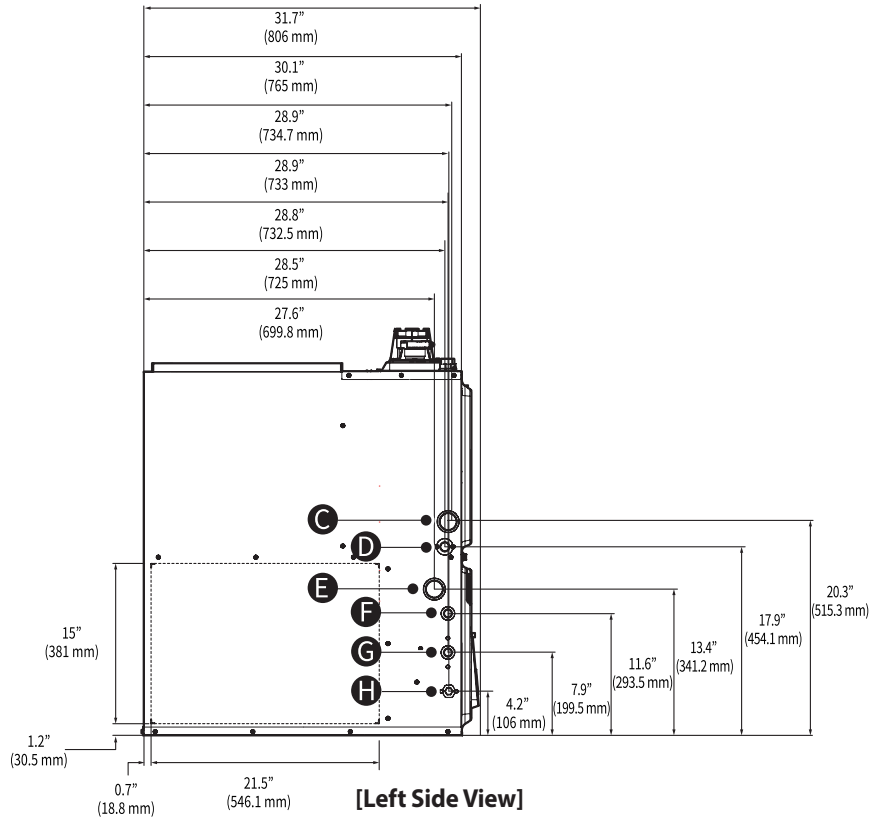
NPF700-060U3BH / 080U3BH / 100U5CH / 060D3BH / 080D3BH / 100D5CH /



[Bottom View - Upflow]



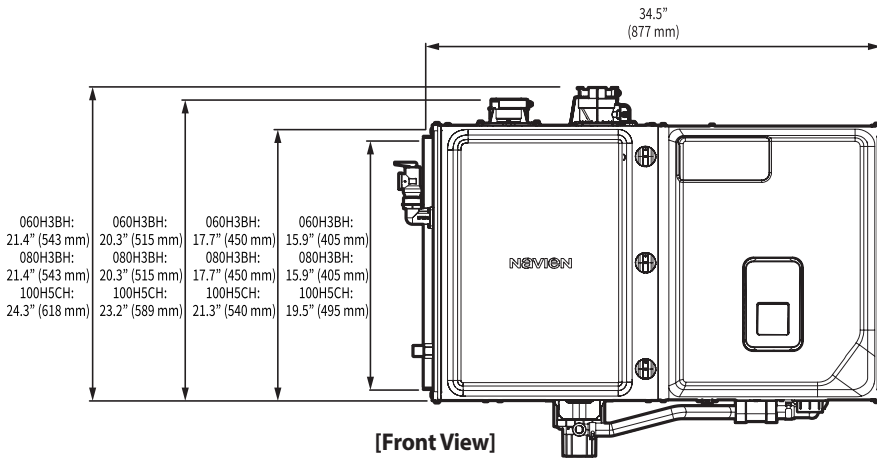
[Bottom View - Downflow]



Condensing Gas Hydro-furnace

Dimensions

NPF700-060H3BH / NPF700-080H3BH



Description	Diameter
A Air intake	2 in
B Exhaust gas vent	2 in
C Gas connection	1.8 in (NPT 1/2")
D Condensate drain	3/4 in (Ø19 mm)
E Overflow connection	1.8 in (Ø44.5 mm)
F Electrical connection low voltage	0.9 in (Ø22.2 mm)
G Electrical connection line voltage	0.9 in (Ø22.2 mm)
H Water supply connection	NPT 1/4"

[Connection Sizes]

