NAVIEN
THE LEADER IN CONDENSING TECHNOLOGY

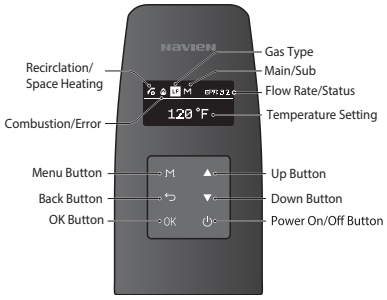
NPE-2 Series Tankless Water Heaters
Specification Sheet

Premium Condensing
Tankless Gas Water Heater

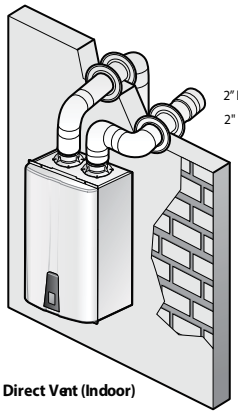
- Certified design according to **ANSI Z21.10.3 - CSA 4.3 latest** standards for both indoor or outdoor installations (with optional Outdoor Vent Kit)
- Compatible with **1/2" gas pipe up to a length of 24 ft*** (*see Installation Manual for additional information)
- Compatible with **2" PVC vent up to 75 ft**** and **150 ft**** **using 3" PVC vent** (**with no elbows)
- Designed for use in **Residential** and **Commercial** applications (see below for available models and warranty terms)
- Gas Input Ranges
  - **NPE-180A2/S2 - 150,000 to 10,000 BTU/h**
  - **NPE-210A2/S2 - 180,000 to 12,000 BTU/h**
  - **NPE-240A2/S2 - 199,900 to 13,300 BTU/h**
  - **NPE-150S2 - 120,000 to 18,000 BTU/h**
- Hot Water Flow Rate Capacity (*based on 35°F temperature rise)
  - **NPE-180A2/S2 8.4 GPM**
  - **NPE-210A2/S2 10.1 GPM**
  - **NPE-240A2/S2 11.2 GPM**
  - **NPE-150 S2 6.8 GPM**
- **TDR** (Turn Down Ratio) up to15:1
- **Dual Primary and Secondary Stainless Steel Heat Exchangers** for optimum efficiency and durability
- **Buit-In - Advanced Multi-Lines Control Panel with setup wizard** allows adjustment of temperature settings and displays of operating status and error codes
- ComfortFlow™ **Technology- "A2"** models come included with built-in 0.5 gallon **Buffer Tank** and **Recirculation Pump** to provide maximum comfort
- **INTELLIGENT Preheating** - recognizes hot water usage patterns to intelligently provide hot water when needed **(optional for "S" models)**
- **Temperature Options** - available temperature settings for *Residential* applications range from 97°F up to 140°F with high temperature *Commercial* mode capable of up to 185°F
- **Ready-Link Cascade Compatible** for up to 32 units for increased hot water production

  Common Vent Compatible - allows for cascade systems to use a single exhaust and/or intake pipe for up to 12 units with the use of the Common Vent Backflow Damper Collar Kit (#30014367A)
- Compatible with NaviLink™ **Wi-Fi** Control (#PBCM-AS-001)
- **Freeze Protection** - maintains normal operation during freezing ambient temperatures down to -5°F (standard on all models)
- **Uniform Energy Factor Ratings** for NG and LP units
  - **NPE-180A2/210A2/240A2 - 0.95 UEF**
  - **NPE-180S2/210S2/240S2 - 0.96 UEF**
  - **NPE-150S2 - 0.93 UEF**
- Compatible with **Natural Gas (NG)** and **Propane (LPG)***** (*** requires installation of included Field Conversion Kit by a qualified gas servicer)
- Approved for Installations on **Manufactured Homes**
- Optional **NaviCirc** Crossover Valve Compatible
- Certified by **CSA, NSF 5, AHRI, AB1953** CA Low Lead**, SCAQMD** *(Rule 1146.2 Type 1 - Complies with 14 ng/J or 20 ppm NOx @ 3% O2)*
- **15-Year** Heat Exchanger and **5-Year** Parts Warranty (Residential)****
  8-Year Heat Exchanger and **5-Year** Parts Warranty (Commercial)****
  (** see Navien Limited Warranty)**
- **Optional accessories** are available *(see below)*

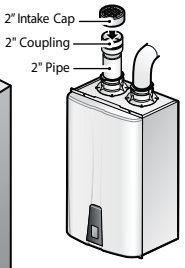
Sleek Design
Compatible with
2" PVC and ***1/2" Gas Pipe***



Built-In Control Panel with Diagnostics



Direct Vent (Indoor)



Non-Direct Vent (Indoor)

Non-Direct Vent (Outdoor)

Indoor and Outdoor Venting Options

ENERGY STAR | NSF | DESIGN CERTIFIED® | CERTIFIED®

AHRI CERTIFIED® www.ahridirectory.org

Job Name: _____

Location: _____

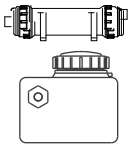
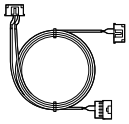
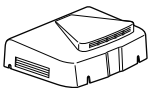
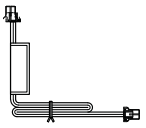
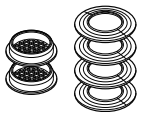
Engineer: _____

Wholesaler: _____

Contractor: _____

Model No.: _____

Submitted to: _____

						
Remote Controller (30022717B)	**Plumb EasyValve Set** (3/4") (30009323A - Lead Free) (30025812A - for Pipe Cover)	**CondensateNeutralizer** (GXXX001322 - Single Unit) (GXXX001324 - Up to 6 Units) (GXXX001325 - Up to 16 Units)	**Ready-Link CommunicationCable** (GXXX000546)	**OutdoorVent Kit** (30025801A)	**External Pump Wire** (GXXX001319)	**3" Vent Termination Caps and Wall Flanges** (GXXX3873B)

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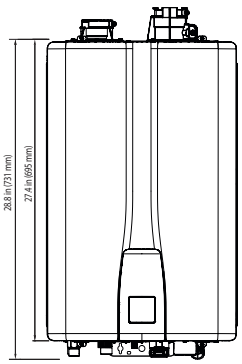
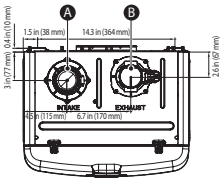


Overhead View

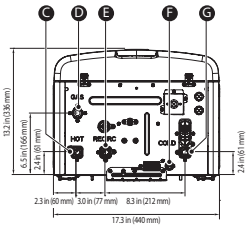


NPE-180A2/ 210A2/240A2

Supply Connections

	Description	Diameter
A	Air Intake	2 in
B	Exhaust Gas Vent	2 in
C	Hot Water Outlet	3/4 in
D	Gas Inlet	3/4 in
E	Recirculation Inlet	3/4 in
F	Condensate Outlet	1/2 in
G	Cold Water Inlet	3/4 in

Supply Connections

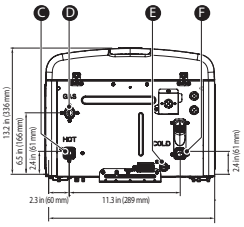


NPE-150S2/180S2/210S2/240S2

Supply Connections

	Description	Diameter
A	Air Intake	2 in
B	Exhaust Gas Vent	2 in
C	Hot Water Outlet	3/4 in
D	Gas Inlet	3/4 in
E	Condensate Outlet	1/2 in
F	Cold Water Inlet	3/4 in

Supply Connections



Item		NPE-150S2	NPE-180A2	NPE-180S2	NPE-210A2	NPE-210S2	NPE-240A2	NPE-240S2
Heat Capacity (Input)	Natural Gas, Propane Gas	18,000-120,000 BTU/H	10,000-150,000 BTU/H		12,000-180,000 BTU/H		13,300-199,900 BTU/H	
Uniform Energy Factor	UEF (for NG & LP)	0.93	0.95	0.96	0.95	0.96	0.95	0.96
Flow Rate (DHW)	35 °F (19 °C) Temp Rise	6.8 GPM (25.8 L/m)	8.4 GPM (32 L/m)		10.1 GPM (38 L/m)		11.2 GPM (42 L/m)	
	45 °F (25 °C) Temp Rise	5.3 GPM (20 L/m)	6.5 GPM (25 L/m)		7.8 GPM (30 L/m)		8.7 GPM (33 L/m)	
	67 °F (36 °C) Temp Rise	3.4 GPM (13 L/m)	4.3 GPM (16 L/m)	4.4 GPM (17 L/m)	5.1 GPM (19 L/m)	5.3 GPM (20 L/m)	5.6 GPM (21 L/m)	5.8 GPM (22 L/m)
Dimensions		17.3 in (W) x 27.4 in (H) x 13.2 in (D)						
Weight		62 lbs (28 kg)	73 lbs (33 kg)	68 lbs (31 kg)	77 lbs (35 kg)	73 lbs (33 kg)	77 lbs (35 kg)	73 lbs (33 kg)
Installation Type		Indoor or Outdoor Wall-Hung						
Venting Type		Forced Draft Direct Vent						
Ignition		Electronic Ignition						
Water Pressure		15-150 PSI						
Natural Gas Supply Pressure (from source)		3.5 in WC-10.5 in WC						
Propane Gas Supply Pressure (from source)		8 in WC-13in WC						
Natural Gas Manifold Pressure (min-max)		–0.04 in WC - –0.40 in WC	–0.03 in WC - –0.55 in WC		–0.03 in WC - –0.76 in WC		–0.03 in WC - –0.96 in WC	
Propane Gas Manifold Pressure (min-max)		–0.03 in WC - –0.40 in WC	–0.02 in WC - –0.55 in WC		–0.02 in WC - –0.76 in WC		–0.02 in WC - –0.96 in WC	
Minimum Flow Rate		0.5 GPM (1.9 L/m), < 0.01 GPM (0.04 L/m) option for "A2" models*						
Connection Sizes	Cold Water Inlet	3/4 in NPT						
	Hot Water Outlet	3/4 in NPT						
	Gas Inlet	3/4 in NPT						
Power Supply	Main Supply	120 V AC, 60 Hz						
	Maximum Power Consumption	200 W (max 2 A), 350 W (max 4 A) with external pump connected						
Materials	Casing	Cold Rolled Carbon Steel						
	Heat Exchangers	Primary Heat Exchanger: Stainless Steel Secondary Heat Exchanger: Stainless Steel						
Venting	Exhaust	2 in or 3 in PVC, CPVC, Approved Polypropylene and stainless steel 2 in or 3 in Special Gas Vent Type BH (Class II, A/B/C)						
	Intake	2 in or 3 in PVC, CPVC, Approved Polypropylene and stainless steel 2 in or 3 in Special Gas Vent Type BH (Class II, A/B/C)						
	Vent Clearances	0 in to combustibles						
High Elevation		10,100 feet for both NG or LP gas. Please refer to Installation Manual for additional details and instructions.						
Safety Devices		Flame Rod, APS, Ignition Operation Detector, Water Temperature High Limit Switch, Exhaust Temperature High Limit Sensor, Power Surge Fuse, Burner High Limit Fuse, Vent Installation Detector (VID)						

* Available for "A2" models configured in an optional ComfortFlow recirculation mode. Energy consumption will increase when the system is configured for recirculation.

Gas-fired, tankless, condensing, wall-mounted water heater(s) shall be direct vent NPE-2 Series models as manufactured by Navien, Inc. and are certified by CSA International to the latest edition of ANSI standard Z21.10.3/CSA 4.3. Water heater(s) shall have a 15(5)-year limited Heat Exchanger warranty and 5(3)-year limited Parts warranty (8(5)-year Heat Exchanger and 5(3)-year Parts for Commercial use) per Navien Limited Warranty. Unit(s) shall be designed to burn natural gas and can be for use with propane when a Field Conversion Kit is installed. _____ (qty) NPE water heater(s) shall have a nominal flow rate capacity of _____ GPM/GPH at _____°F rise with rated input of _____ BTU/hr. Water heater(s) shall be vented with 2" Schedule 40/80 PVC/CPVC, approved polypropylene and stainless steel vent pipe at a distance not to exceed 75' (or equivalent) with each elbow equal to 8' of pipe length or 3" Schedule 40/80 PVC/CPVC, approved polypropylene and stainless steel vent pipe at a distance of 150' (or equivalent) with each elbow equal to 5' of pipe length. Water heater(s) is rated for 150 PSI working water pressure and 300 PSI test pressure. Gas supply pressure shall be 3.5" to 10.5" WC for natural gas and 8.0" to 13.0" WC for propane. Unit(s) shall have a steel case, dual stainless steel heat exchangers, eco premixed burner, negative pressure gas valve, dual venturi, 3/4" inlet gas connection, 3/4" brass inlet/outlet water connections, water holding capacity of 0.6 gallon for the NPE-150S2, 1.0 gallon for the NPE-180A2 model (0.7 gallons for NPE-180S2 model), 1.2 gallons for the NPE-210A2/NPE-240A2 models (0.7 and 0.9 gallons for NPE-210S2 and NPE-240S2 models respectively), and a condensate collector. The NPE-180A2 model weighs 73 lbs (NPE-180S2 weighs 68 lbs), and the NPE-210A2/NPE-240A2 models weigh 77 lbs (NPE-210S2 and NPE-240S2 weigh 73 lbs) and The NPE-150S2 weigh 62lbs. Unit(s) shall include features such as an adjustment for installations at high elevation, temperature lockout, and temperature options from 97-120°F in 1°F intervals and 120-140°F in 1°F intervals. The unit(s) shall include additional temperature options of 140-185°F in 1°F intervals, for high temperature commercial applications. All NPE "A2" models shall include an internal circulation pump and 0.5-gallon buffer tank. The water heater(s) shall be controlled by an internal circuit board that monitors the inlet and outlet temperatures with installed thermistors, sensing and controlling flow rate to set point temperature with air-fuel ratio controls in order to maintain thermal combustion efficiency. Unit(s) shall include safety features such as flame sensor system, high limit sensors, overheat prevention device, freeze protection mode, and fan motor rotation detector. Multi-system (cascade) applications that require 2 to 32 units shall be installed by connecting the units using cable only connections (Ready Link). The water heater(s) exceeds the energy efficiency requirements of ASHRAE 90.1-2010 and is listed by SCAQMD rule 1146.2 (Type 1) for Low NOx that complies with 14 ng/J or 20 ppm NOx requirements @ 3% O2.

Navien reserves the right to change specifications at any time without prior notice