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 or 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 application's (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 NPE-150 52

11.2 GPM 6.8 GPM

- TDR (Turn Down Ratio) up to 15:1
- Dual Primary and Secondary Stainless Steel Heat Exchangers for optimum efficiency and durability
- Buit-In Advanced Multi-Lines Control Panel with setup wizard allows ad ustment of temperature settings and displays of operating status and error codes
- Comfort Flow 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 NaviEnk. 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)
- 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 Nav en Limited Warranty)
- · Optional accessories are available (see below)

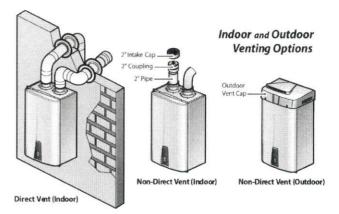
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Built-In Control Panel with Diagnostics





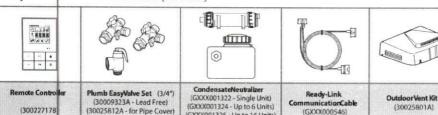




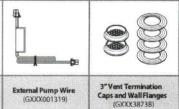




Job Name:	
Location:	
Engineer:	
Wholesaler:	
Contractor:	
Model No.:	
Submitted to:	



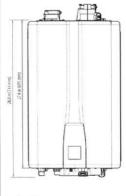
(GXXX001325 - Up to 16 Units

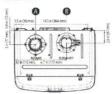




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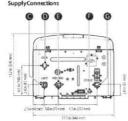
NPE-2 Series Tankless Water Heaters **Specification Sheet**





NPE-180A2/210A2/240A2

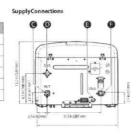
	Description	Diameter			
A	Air Intake	2 in			
В	Exhaust Gas Vent	2 in			
C	Hot Water Outlet	7/4 in			
D	Gas Inlet	7/4 in			
E	Recirculation Inlet	1/4 in			
F	Condensate Outlet	1/2 in			
G	Cold Water Inlet	Vilin			



NPE-15052/18052/21052/24052

Supp	lyConnections	
	Description	Diam

	Description	Diameter		
A	Air Intake	2 in		
В	Exhaust Gas Vent	2 in		
C	Hot Water Outlet	V ₄ in		
D	Gas Inlet	∜₄in		
E	Condensate Outle 1/2 in			
F	Cold Water Inlet	1/4 in		



ltem		NPE-150S2	NPE-180A2	NPE-180S2	NPE-210A2	NPE-21052	NPE-240A2	NPE-240S2
Heat Capacity (Input)	Natural Gas, Propane Gas	18,000-120,000 BTU/H	Control Process		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	7.4 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	2	Indoor or Outd	oor Wall-Hung)				
Venting Type		Forced Draft Di	rect Vent					
Ignition		Electronic Ignition						
Water Pressure		15-150 PSI			va = 11.0000000000000000000000000000000000			
Natural Gas Sup (from source)	ply Pressure	3.5 in WC-10.5 in WC						
Propane Gas Su (from source)	ppły Pressure	8 in WC-13in WC						
Natural Gas Manifold Pressure (min-max)		-0.04 in WC - -0.40 in WC	-0.03 in WC0.55 in WC -0.03 in WC0.76 in WC		-0.03 in WC0.96 in WC			
Propane Gas Manifold Pressure (min-max)		-0.03 in WC - -0.40 in WC	-0.02 in WC0.55 in WC -0.02 in WC0.76 in WC		-0.02 in WC0.96 in WC			
Minimum Flow	Rate	0.5 GPM (1.9 L/m), < 0.01 GPM (0.04 L/m) option for "A2" models*						
	Cold Water Inlet	³/s in NPT						
Connection Sizes	Hot Water Outlet	³J₂ in NPT						
	Gas Inlet	3/4 in NPT	³/₄ in NPT					
	Main Supply	120 V AC, 60 Hz						
Power Supply	Advisor .							
	Casing	Cold Rolled Carbon Steel						
Materials	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	learances 0 in to combustibles						
High Elevation	10,100 feet for bo	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% 02.

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