

Tankless Gas Water Heater

# NPN Series Tankless Water Heaters Specification Sheet

- Certified design according to ANSI Z21.10.3 CSA 4.3-2017 standards for both indoor or outdoor installations (with optional Outdoor Vent Kit or Recess Box)
- Compatible with 3/5" Category III Concentric vent up to 43 ft\*\* (\*\*with no elbows)
- Designed for use in Residential and Commercial applications (see below for available models and warranty terms)
- Gas Input Range

**NPN-160(U,E)** - 160,000 to 10,700 BTU/h **NPN-180(U,E)** - 180,000 to 10,700 BTU/h **NPN-199(U,E)** - 199,900 to 10,700 BTU/h

• Hot Water Flow Rate Capacity (\*based on 45°F temperature rise)

**NPN-160(U,E)** - 5.8 GPM **NPN-180(U,E)** - 6.6 GPM **NPN-199(U,E)** - 7.4 GPM

- Stainless Steel Heat Exchanger for optimum efficiency and durability
- Built-in Control Panel allows adjustment of temperature settings and displays the operating status and error codes
- Temperature Options available temperature settings for various applications range from 98°F up to 140°F
- Ready-Link Cascade Compatible for up to 2 units for increased hot water production
- 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 NPN-160(U,E) 0.81 UEF

NPN-180(U,E) - 0.81 UEF

NPN-199(U,E) - 0.81 UEF

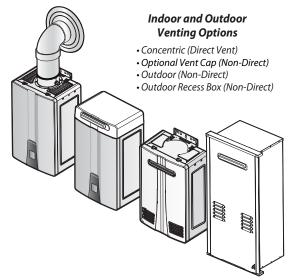
- Models available for use with Natural Gas (NG) or Propane (LPG)\*\*\*
   (\*\*\* can be field converted with optional Conversion Kit installed by a qualified service agency)
- Approved for Installations on Mobile/Manufactured Homes
- Certified by CSA, NSF 5/Low Lead, AHRI, SCAQMD (Rule 1146.2 Type 1 Complies with 14 ng/J or 20 ppm NOx @ 3% 02)
- 15-Year Heat Exchanger and 5-Year Parts Warranty (Residential)\*\*\*\*
  5-Year Heat Exchanger and 5-Year Parts Warranty (Commercial)\*\*\*\*
  (\*\*\*\* includes 1-Year Labor warranty see Navien Limited Warranty)
- Optional accessories are available (see below)







**EXTERIOR - Non-Direct Vent**OUTDOOR use only









ob Name:	



**Plumb Easy Valve Set** (3/4") (30009323A - Lead Free) (30012581A - for Pipe Cover)



Outdoor Vent Kit (30023991A)



Recess Box (Outdoor Only) (30023550A)



**Pipe Cover** (30024017A)



NaviLink™ Wi-Fi Control (PBCM-AS-001)



Remote Controller NR-21DU (30022717A)



Ready-Link Communication Cable (GXXX000546)



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#### **Dimensions**

## Connection Size A Exhaust Gas Vent Ф3" Air Intake Φ5" Condensate Drain Φ 5/8" 1 in (26 mm) 24.9 in (633 mm) 23 in (583 mm) 68 mm) (80.1 mm) (124.1 mm 14 in (356 mm) Connection Size Hot Water Outlet Φ 3/4" Cold Water Inlet Ф 3/4" Gas Inlet

#### **Specifications**

MODEL		IN	DOOR or OUTDO	OR	OUTDOOR				
		NPN-160U	NPN-180U	NPN-199U	NPN-160E	NPN-180E	NPN-199E		
Heat Capacity	Min (Btu/h) (NG & LP)	10,700	10,700	10,700	10,700	10,700	10,700		
	Max (Btu/h) (NG & LP)	160,000	180,000	199,900	160,000	180,000	199,900		
Efficiency	UEF (NG & LP)	0.81	0.81	0.81	0.81	0.81	0.81		
Flow Rate (LPM)	35°F (19°C) Temp. Rise	7.6 GPM (28.8)	8.5 GPM (32.2)	9.5 GPM (36.0)	7.6 GPM (28.8)	8.5 GPM (32.2)	9.5 GPM (36.0)		
	45°F (25°C) Temp. Rise	5.8 GPM (22.3)	6.6 GPM (25.0)	7.4 GPM (28.0)	5.9 GPM (22.3)	6.6 GPM (25.0)	7.4 GPM (28.0)		
(=:,	67°F (37°C) Temp. Rise	4.0 GPM (15.1)	4.5 GPM (17.0)	5.0 GPM (18.9)	4.0 GPM (15.1)	4.5 GPM (17.0)	5.0 GPM (18.9)		
Mounting Applications		Indoor or Outdoor Wall-Hung (Optional Vent Kit for Outdoor)			Outdoor Wall-Hung Only				
Weight		55.0 lbs (25 kg)	60.0 lbs (27 kg)	60.0 lbs (27 kg)	55.0 lbs (25 kg)	60.0 lbs (27 kg)	60.0 lbs (27 kg)		
Dimensions		14.0 ln(W) X 23.0 in(H) X 9.3 in(D)							
	Ignition	Electronic Ignition							
Wa	ter Pressure	15-150 PSI							
Natural G	as Supply Pressure	3.5 in WC - 10.5 in WC							
Propane 0	Gas Supply Pressure	8 in WC - 13 in WC							
Natural Gas Manifold Pressure		0.7 - 2.8 in WC	0.5 - 2.3 in WC	0.5 - 2.8 in WC	0.7 - 3.2 in WC	0.5 - 2.4 in WC	0.5 - 3.0 in WC		
Propane Gas Manifold Pressure		1.4 - 5.9 in WC	1.3 - 5.3 in WC	1.3 - 6.6 in WC	1.4 - 6.3 in WC	1.3 - 5.4 in WC	1.3 - 6.6 in WC		
Minimum Flow Rate		0.5 GPM (1.9 LPM)							
Connection Sizes	Cold Water Inlet	3/4 in NPT							
	Hot Water Outlet	3/4 in NPT							
	Gas Inlet	3/4 in NPT							
	Main Supply	120V AC, 60Hz							
	Normal	90 W	88W	120W	90W	88W	120W		
Power Supply	Standby	4 W							
	Anti-Frost	114 W							
	External Pump	< 150W, 1.5 A							
	Fuse	5.0 A							
Materials	Casing	Cold Rolled Carbon Steel							
Heat Exchanger		Stainless Steel							
Venting		Concentric No Venting (Outdoor Installation Only)							
	fety Device	Flow Adjustment Valve  Flame Rod, APS, Overheat Protection, Ignition Operation Detector, Temperature High Limit Switch,  Power Surge Fuse							

Gas-fired, tankless, non-condensing, wall-mounted water heater(s) shall be direct vent NPN Series models as manufactured by Navien, Inc. and are certified by CSA Group to the latest edition of ANSI standard Z21.10.3/CSA 4.3. Water heater(s) is designed for both Residential and Commercial applications and shall have a 15-year limited Heat Exchanger warranty and 5-year limited Parts warranty (5-year Heat Exchanger and 5-year Parts for Commercial use) with a 1-year Labor warranty per Navien Limited Warranty. Unit(s) shall be designed to use natural gas and can be for use with propane when a Field Conversion Kit is installed. Water heater(s) shall have a nominal fow rate capacity of GPM/GPH at\_ \_°F rise with rated input of \_\_  $\_$  BTU/hr. Water heater(s) shall be vented with 3/5" concentric vent pipe at a distance not to exceed 43' (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, stainless steel heat exchanger, power burner, gas valve, air pressure sensor, 3/4" inlet gas connection, 3/4" brass inlet/outlet water connections, water holding capacity of 0.5 gallons for the NPN-160, 0.7 gallons for NPN-180 model, 0.9 gallons for NPN-199. The NPN-160 weighs 55.0 lbs, and the NPN-180/NPN-199 models weigh 60.0 lbs. Unit(s) shall include features such as an adjustment for installations at high elevation, temperature lockout, and temperature options from 98-140°F in 1°F intervals (36°C-60°C in 0.5°C intervals). 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 in conjunction with the combustion 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. 2-unit cascade applications shall be installed by connecting the units using cable-only connections (Ready-Link). The water heater(s) exceeds the energy efficiency requirements of ASHRAE 90.1-2013 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.