

**H<sub>2</sub>Air**™

# Combination heating system



An add-on accessory for the Navien NPE-A Series tankless water heater that creates a high efficiency space heating and endless domestic hot water system



# Combination heating and DHW system

Designed for both retrofit and new construction residential applications, Navien's H<sub>2</sub>Air Kit\* allows for space heating and DHW system integration between NPE-A Series tankless water heater models and a hydronic air handler. With H<sub>2</sub>Air you will have a combination appliance that can provide endless domestic hot water and continuous space heating when sized correctly.

H<sub>2</sub>Air is compatible with hydronic air handler models that require W1/W2/R terminals along with single or dual-stage thermostats†. The included Outdoor Reset Sensor provides optimum performance and efficiency for space heating.

Note: H<sub>2</sub>Air is for use with one NPE-A and one AHU only. For detailed information, refer to the AHU manufacturer's literature to determine the proper output capacity.

## Additional features

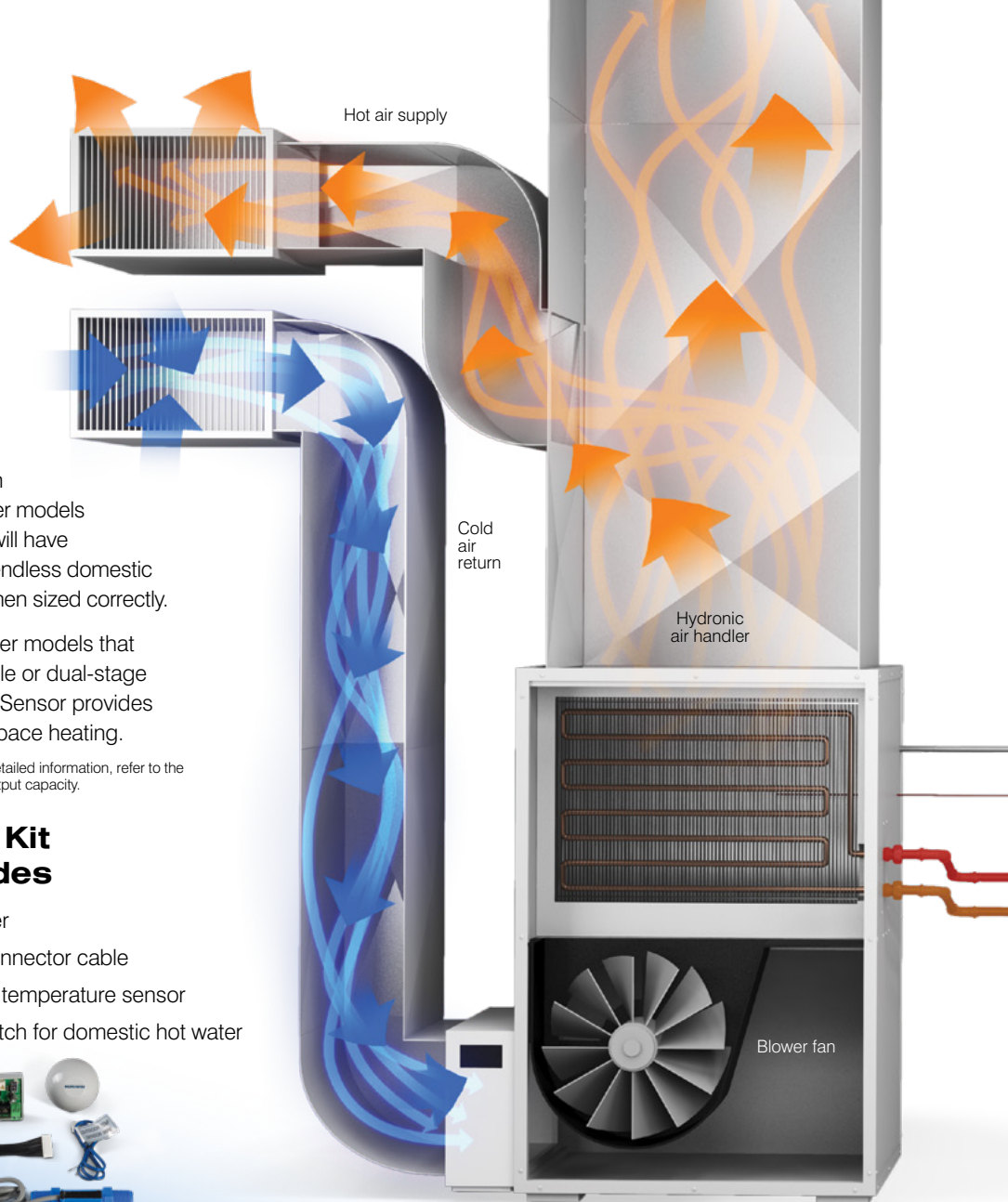
- Domestic hot water priority or simultaneous Domestic hot water and heating‡
- Endless supply of DHW
- Adjustable outdoor temperature reset and heating set points
- Adjustable pump purge timer

## H<sub>2</sub>Air Kit includes

- Controller
- 13-pin connector cable
- Outdoor temperature sensor
- Flow switch for domestic hot water



PNBD-000001



\*Compatible with NPE-A Series units produced on or after May 31, 2014.

†Self-powered thermostats only.

‡The control will automatically pause heating if the simultaneous DHW and heating loads exceed 85% of the water heater's capacity to ensure an uninterrupted supply of domestic hot water.







Navien NPE-A  
Wins 2013 AHR  
Innovation Award

## A new use for the NPE-A's integrated circulator

The H<sub>2</sub>Air Kit utilizes the NPE-A pump to circulate the hot water for the hydronic air handler. This removes the need to purchase an additional circulator for the heating system.

### NPE-A is easy to sell, easy to install

#### Cuts installation time in half

Thanks to using 1/2" gas pipe and 2" PVC venting, you can install a Navien tankless water heater in about half the time as competitive tankless heaters — about the same time as a traditional tank heater.

#### Fewer callbacks, longer life, faster heating

Navien was first to offer dual stainless steel heat exchangers, rather than copper, which extends the life by resisting corrosion.

#### Energy Star highly rated gas water heater

The NPE-A is one of the most energy efficient tankless water heater series in the industry. Our ultra condensing technology delivers cooled exhaust gas and high performance up to 0.96UEF/0.97EF.

1/2" GAS CAPABILITY  
UP TO 24 FT

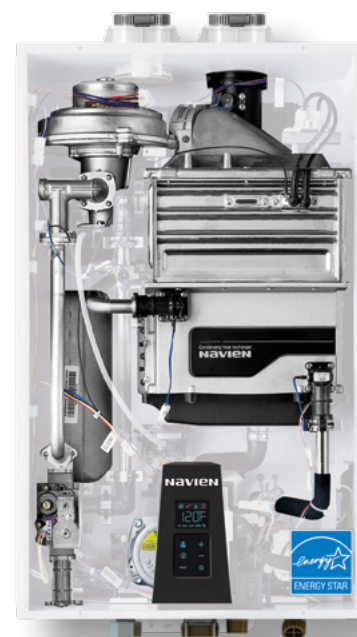
2" PVC VENTING  
UP TO 60 FT

DUAL STAINLESS  
STEEL  
HEAT EXCHANGERS

NG or LP FIELD GAS  
CONVERTIBLE

UP TO  
0.97<sub>UEF</sub>

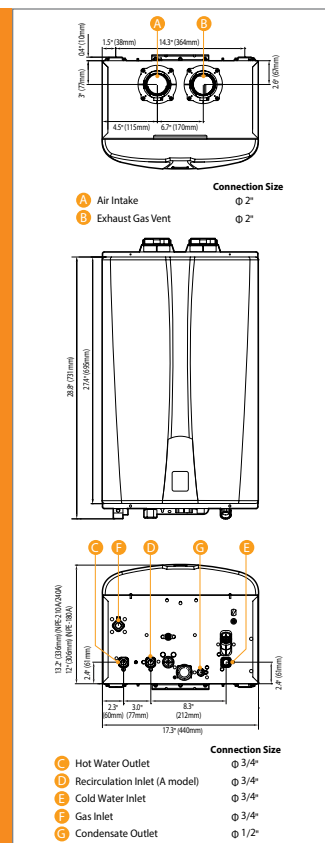
UP TO  
0.96<sub>UEF</sub>



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## Dimensions



## Specifications for NPE-A with H<sub>2</sub>Air™

Item		Model		
		NPE-180A	NPE-210A	NPE-240A
Heat capacity (input)	Natural gas	15,000–150,000 BTU/H	19,900–180,000 BTU/H	19,900–199,900 BTU/H
	Propane gas			
Efficiency ratings	UEF (NG & LP)	0.96	0.96	0.96
	EF (Canada NG & LP)	0.97	0.97	0.97
Flow rate (DHW)	35°F (19°C) temp rise	8.4 GPM (32 L/m)	10.1 GPM (38 L/m)	11.2 GPM (42 L/m)
	45°F (25°C) temp rise	6.5 GPM (25 L/m)	7.8 GPM (30 L/m)	8.7 GPM (33 L/m)
	67°F (36°C) temp rise	4.3 GPM (16 L/m)	5.0 GPM (19 L/m)	5.6 GPM (21 L/m)
Dimensions		17.3"W x 27.4"H x 13.2"D		
Weight		75lbs (34kg)	82lbs (37kg)	82lbs (37kg)
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"–10.5" WC		
Propane gas supply pressure (from source)		8"–13" WC		
Natural gas manifold pressure (min-max)		-0.04" WC to -0.84" WC	-0.05" WC to -0.36" WC	-0.05" WC to -0.58" WC
Propane gas manifold pressure (min-max)		-0.05" WC to -0.50" WC	-0.10" WC to -0.66" WC	-0.10" WC to -0.78" WC
Minimum flow rate		0.5 GPM (1.9 L/m)		
Connection sizes	Cold water inlet	3/4" NPT		
	Hot water outlet	3/4" NPT		
	Gas inlet	3/4" NPT		
Power supply	Main supply	120V AC, 60 Hz		
	Maximum power consumption	200W (max 2A), 350W (max 4A) with external pump connected		
Materials	Casing	Cold rolled carbon steel		
	Heat exchangers	Primary heat exchangers: stainless steel, secondary heat exchangers: stainless steel		
Venting	Exhaust	2" or 3" PVC, CPVC, polypropylene / 2" or 3" special gas vent type BH (Class II, A/B/C)		
	Intake	2" or 3" PVC, CPVC, polypropylene / 2" or 3" special gas vent type BH (Class II, A/B/C)		
	Vent clearances	0" to combustibles		
Safety devices		Flame rod, APS, ignition operation detector, water temperature high limit switch, exhaust temperature high limit sensor, power surge fuse		

Navien reserves the right to change specifications at any time without prior notice. Please refer to [www.navien.com](http://www.navien.com) to verify you have the most current information.

Note: H<sub>2</sub>Air is for use with one NPE-A and one AHU only. For detailed information, refer to the AHU manufacturer's literature to determine the proper output capacity. Internal or external circulation modes typically available on the NPE-A models are no longer available when the H<sub>2</sub>Air application is installed.

## Accessories

	<b>H<sub>2</sub>Air Kit</b> <b>AHU Optimizer</b> PNBD-000001
	<b>Plumb Easy Valve 3/4"</b> <b>with Relief Valve</b> 30012581A
	<b>Residential Neutralizer</b> <b>(1 unit)</b> GXXX001322 <b>Replacement Media</b> GXXX001323

## NPE-A warranty

Commercial or Combi*	Labor	Parts	Heat exchanger
Standard or controlled recirculation	1 year	5 years	8 years
Uncontrolled recirculation	1 year	3 years	3 years

\*"Combi" refers to a combination potable water & space heating application. Water heaters cannot be used in space heating only applications. For full warranty visit [us.navien.com](http://us.navien.com)



## CSA P.9-11 rating

Combi System			CSHE (%)	WHPF	Recovery Efficiency (%)	TPF
Heat Generator	Fan Coil	Model number				
NPE-180A	SunTherm	MMVE0S4NAAA	94	0.96	97	0.94
	Airmax	50e, 50e P2, 50e P3	92	0.94	97	0.93
	Airmax	70e	93	0.94	97	0.93
	Hi-Velocity Systems	HE-Z 70/71H, HE-B 70/71H	91	0.96	98	0.92
	Airmax	50e, 50e P2, 50e P3	90	0.94	97	0.91
	Hi-Velocity Systems	HE-Z 50/51H, HE-B 50/51H	90	0.96	98	0.90
	Ecologix Heating Technologies Inc.	EZPN40-EZ1	90	0.96	97	0.90
	Hi-Velocity Systems	HE-Z 50/51H, HE-B 50/51H	84	0.96	98	0.86
	Hi-Velocity Systems	HE-Z 70/71H, HE-B 70/71H	84	0.96	98	0.86
	Ecologix Heating Technologies Inc.	EZ1	95	0.95	96	0.95
NPE-240A	SunTherm	MMVE0M4NAAA	95	0.95	96	0.95
	Hi-Velocity Systems	HE-Z 100/101H, HE-B 100/101H	93	0.96	98	0.94
	Hi-Velocity Systems	LV-Z 1050H	93	0.96	98	0.93
	Airmax	50e, 50e P2, 50e P3	92	0.94	96	0.92
	ADP	MXV12WNN4C	91	0.95	96	0.92
	Airmax	50e, 50e P2, 50e P3	90	0.94	96	0.90
	Airmax	50e, 50e P2, 50e P3	88	0.94	96	0.89
	Airmax	50e, 50e P2, 50e P3	87	0.94	96	0.88

Refer to Natural Resources Canada's directory for additional combinations.

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