

# Essential<sup>®</sup>

Essential Power Direct Vent gas waterheaters are a perfect choice for tight construction or when indoor air quality is a concern

## EFFICIENCY

- .63 - .69 UEF

## PERFORMANCE

- FHR: 67 to 82 gallons
- Recovery: 38.4 to 65.7 GPH at a 90° F rise, depending on model

## SELF-DIAGNOSTIC SYSTEM

- Electronic gas control for improved monitoring and service

## LOW EMISSIONS

- Eco-friendly burner, low NOx design

## FEATURES

- Two pipe system: one pipe pulls in outside air for combustion and the other exhausts combustion gases
- 120 VAC powered blower
- Whisper quiet blower

## FLAMMABLE VAPOR DETECTION SYSTEM

- Disables the heater in the presence of flammable vapor accumulation

## FLEXIBLE VENTING OPTIONS

- Long venting lengths up to 100 feet
- PVC, ABS, or CPVC vent pipe options
- Vertical or horizontal termination
- Concentric vent kit available

## ALTITUDE CERTIFICATION

- Models are certified for applications up to 10,200 feet above sea level

## PLUS...

- Quality anode rod helps protect against tank corrosion
- Temperature and pressure relief valve included
- Low lead compliant
- Durable silicon nitride igniter (HSI)
- Standard replacement parts

## WARRANTY

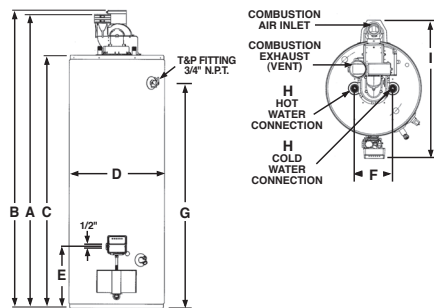
- 6-Year limited tank and parts warranty\*

\*See Residential Warranty Certificate for complete information

Units meet or exceed ANSI requirements and have been tested according to D.O.E. procedures. Units meet or exceed the energy efficiency requirements of NAECA, ASHRAE standard 90, ICC Code and all state energy efficiency performance criteria.



*Essential*  
Power Direct Vent  
40 and 50-Gallon Capacities  
Up to 65,000 BTU/h  
Natural and LP Gas



LEED Point = 1

TYPE	DESCRIPTION			FEATURES						ROUGHING IN DIMENSIONS (SHOWN IN INCHES)								ENERGY INFO.		
	NOMINAL GALLON CAPACITY	RATED GALLON CAPACITY	MODEL NUMBER	GAS INPUT IN THOUS. BTU/H		RECOVERY IN G.P.H. 90° F RISE		FIRST HR. DELIVERY G.P.H.		HT. TO TOP OF VENT A	HT. TO TOP OF AIR INLET B	TANK HEIGHT C	DIAM. D	HT. TO GAS CONN. E	WATER CONN. CENTER F	HT. TO SIDE T&P VALVE G	WATER CONN. SIZE H	FRONT TO BACK I	SHIP WEIGHT (LBS)	UNIFORM ENERGY FACTOR (UEF)
				NAT.	LP	NAT.	LP	NAT.	LP											
Tall	40	38	6G40PDV-40	40	-	40.4	-	67	-	68-1/2	69-1/4	60-1/4	19-3/4	14	8	53-3/4	3/4	29-1/2	180	0.63
Tall	40	38	6G40PDVP-38	-	38	-	38.4	-	67	68-1/2	69-1/4	60-1/4	19-3/4	14	8	53-3/4	3/4	29-1/2	180	0.63
Tall	50	48	6G50PDV-40	40	-	40.4	-	82	-	67-5/8	67-7/8	59-3/8	22-1/8	14	8	52-3/4	3/4	31-1/2	205	0.69
Tall	50	48	6G50PDVP-40	-	40	-	40.4	-	82	67-5/8	67-7/8	59-3/8	22-1/8	14	8	52-3/4	3/4	31-1/2	205	0.69
Tall	50	48	6G50PDV-65†	65	-	65.7	-	76	-	67-5/8	68-3/8	59-3/8	21-3/4	14	8	52-3/4	3/4	31-1/2	210	0.63
Tall	50	48	6G50PDVP-50†	-	47	-	47.5	-	76	67-5/8	68-3/8	59-3/8	21-3/4	14	8	52-3/4	3/4	31-1/2	210	0.63

Uniform Energy Factor and rated gallon capacity based on Department of Energy (DOE) requirements.  
† These models feature side water connections for space heating applications.

Air-Inlet and Venting Information on back.

# Essential<sup>®</sup>

## Power Direct Vent Air-Inlet and Venting Information

MODEL NUMBER	VENT & COMBUSTION AIR-INLET SYSTEM DIAMETER (INCHES)	MIN. ALLOWED EQUIVALENT VENT & COMBUSTION AIR-INLET LENGTHS – EACH PIPE RUN (FT.)	MAX. ALLOWED EQUIVALENT VENT & COMBUSTION AIR-INLET LENGTHS – EACH PIPE RUN (FT.)	VENT AND COMBUSTION AIR-INLET SYSTEM TERMINATION(S)	
<b>FROM SEA LEVEL THROUGH 5,999 FT. ABOVE SEA LEVEL</b>					
6G40PDV	2	7	30	90° Elbows	Concentric*
6G40PDV	3	7	60	90° Elbows	–
6G40PDV	3	7	50	–	Concentric*
6G50PDV	2	7	30	90° Elbows	Concentric*
6G50PDV	3	7	60	90° Elbows	–
6G50PDV	3	7	50	–	Concentric*
<b>FROM 6,000 FT. ABOVE SEA LEVEL THROUGH 7,700 FT. ABOVE SEA LEVEL</b>					
6G40PDV	2	7	15	90° Elbows	–
6G40PDV	2	7	30	–	Concentric*
6G40PDV	3	7	60	90° Elbows	–
6G40PDV	3	7	50	–	Concentric*
6G50PDV	2	7	15	–	Concentric*
6G50PDV	3	7	60	90° Elbows	–
6G50PDV	3	7	50	–	Concentric**
<b>FROM 7,701 FT. ABOVE SEA LEVEL THROUGH 10,200 FT. ABOVE SEA LEVEL</b>					
6G40PDV	2	7	15	–	Concentric*
6G40PDV	3	7	60	90° Elbows	–
6G40PDV	3	7	50	–	Concentric*
6G50PDV	3	7	60	90° Elbows	–
6G50PDV	3	7	50	–	Concentric*

MODEL NUMBER	VENT & COMBUSTION AIR-INLET SYSTEM DIAMETER (INCHES)	MIN. ALLOWED EQUIVALENT VENT & COMBUSTION AIR-INLET LENGTHS – EACH PIPE RUN (FT.)	MAX. ALLOWED EQUIVALENT VENT & COMBUSTION AIR-INLET LENGTHS – EACH PIPE RUN (FT.)	VENT AND COMBUSTION AIR-INLET SYSTEM TERMINATION(S)	
<b>FROM SEA LEVEL THROUGH 2,000 FT. ABOVE SEA LEVEL</b>					
6G50PDV-65	3	7	50	90° Elbows	–
6G50PDV-65	3	7	40	–	Concentric*
6G50PDV-65	4	7	100	90° Elbows	–
<b>FROM 2,001 FT. ABOVE SEA LEVEL THROUGH 5,999 FT. ABOVE SEA LEVEL</b>					
6G50PDV-65	3	7	50	90° Elbows	–
6G50PDV-65	3	7	40	–	Concentric*
6G50PDV-65	4	7	100	90° Elbows	–
<b>FROM 6,000 FT. ABOVE SEA LEVEL THROUGH 7,700 FT. ABOVE SEA LEVEL</b>					
6G50PDV-65	3	7	50	90° Elbows	–
6G50PDV-65	3	7	40	–	Concentric*
6G50PDV-65	4	7	100	90° Elbows	–
<b>FROM 7,701 FT. ABOVE SEA LEVEL THROUGH 10,200 FT. ABOVE SEA LEVEL</b>					
6G50PDV-65	3	7	25	90° Elbows	–
6G50PDV-65	3	7	20	–	Concentric*
6G50PDV-65	4	7	100	90° Elbows	–

One 90° elbow is approximately equivalent to 5 feet of pipe. One 45° elbow is approximately equivalent to 2.5 feet of pipe.  
 \* Use only Richmond 3 inch concentric termination.