



COMMERCIAL PRODUCT POCKET CATALOG

Built to be the Best™



Ambler, PA

Committed to
American Manufacturing and
Professional Installation.

Bradford White Corporation Subsidiary Companies



■ Sales Department

For questions regarding where to purchase water heaters or who your local Bradford White representative is, call:
800-523-2931

■ 24/7 Technical Support

For questions during and after installation, including sequence of operation, diagnosis, and repair assistance.

Phone: 800-334-3393

Email: techserv@bradfordwhite.com

■ Product Support

Pre-Installation support such as product sizing, performance, application, and clarification questions.

Phone: 844-235-4958

Email: products@bradfordwhite.com

■ 24/7 Warranty Support

For questions regarding tank and/or parts warranty and limitations on warranties.

Phone: 800-531-2111

Email: warranty@bradfordwhite.com

To see Bradford White's complete line of products visit: www.bradfordwhite.com

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CPC-0617

www.bradfordwhite.com

Committed to American Manufacturing, Wholesale Distribution, and Professional Installation.

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CPC-0617

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General Information About the Products in this Catalog

- 1. All Gas Water Heaters are design certified by CSA International (formerly AGA and CGA) in accordance with ANSI Z21.10.1 or 10.3 (latest addition). Closed Combustion Manufactured Home Water Heaters, are listed by Intertek (ETL).
- 2. All Electric Water Heaters are listed by Intertek (ETL).
- 3. All Tank Type Water Heaters are certified at 300 PSI test pressure and 150 PSI working pressure (except where noted).
- 4. All Light Duty Water Connections are ¾" NPT on 8" centers (except where noted).
- 5. All Light Duty Gas Models have ½" NPT Gas Connections (except where noted).
- 6. MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,682,666; 7,634,976; 5,660,165; 5,954,492; 6,056,542; 6,935,280; 5,372,185; 5,485,879; 5,574,822; 7,971,560; 7,992,526; 6,684,821; 6,442,178; 7,334,419; 7,866,168; 7,270,087; 7,007,748; 5,596,952; 6,142,216; 7,699,026; 5,341,770; 7,337,517; 7,665,211; 7,665,210; 7,063,132; 7,063,133; 7,559,293; 7,900,589; 5,943,984; 8,082,888; 5,988,117; 7,621,238; 7,650,859; 5,761,379; 7,409,925; 5,277,171; 8,146,772; 7,458,341; 2,262,174. OTHER U.S. AND FOREIGN PATENT APPLICATIONS PENDING. CURRENT CANADIAN PATENTS: 2,314,845; 2,504,824; 2,108,186; 2,143,031; 2,409,271; 2,548,958; 2,112,515; 2,476,685; 2,239,007; 2,092,105; 2,107,012.
- 7. All dimensions are in inches (unless otherwise noted). Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.
- 8. All products manufactured by Bradford White Water Heaters are designed, fabricated, and assembled in Middleville, MI. All raw materials and component parts are sourced from American companies for the highest level of American made content and manufacture, whenever possible.



Air-Conditioning, Heating, and Refrigeration Institute



American Society of Mechanical Engineers Heating Boilers



American Society of Mechanical Engineers Lined Potable Water Heaters



Compliance, Safety, Accountability



CSA International



Intertek



National Board of Boiler and Pressure Vessel Inspectors



Water Quality Association



Underwriters Laboratories

THE SOLUTION

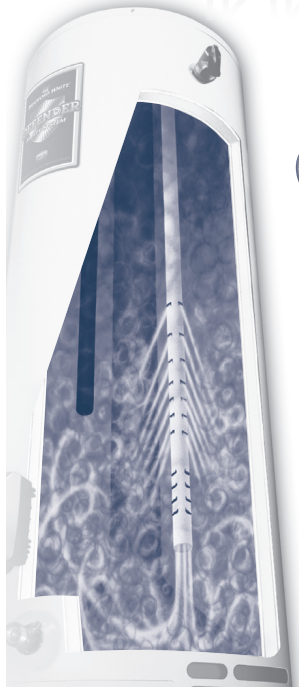
Bradford White's MAGNUM Series® is an extensive line of commercial water heaters that are used by specifiers, architects, engineers, mechanical contractors and building owners for practically every type of commercial installation. This all-inclusive line provides solutions to the multitude of challenges faced when specifying, buying and installing commercial water heating products.

Most importantly, the water heaters showcased in this catalog incorporate features and design characteristics that result in greater durability, more reliable and energy efficient performance, exceptional installation flexibility, and cost savings.

Hotels, motels, restaurants, medical centers, schools, universities, public buildings, apartments, health clubs, stadiums, prisons, office buildings, shopping centers, laundromats and more - no matter what the call for hot water, there's a MAGNUM Series® solution.

page 4

INNOVATION AND RESOURCES



Hydrojet® Sediment Reduction System

The commercial Hydrojet® Sediment Reduction System was designed to block the build-up of harmful sediment in commercial units by increasing turbulence with accelerated water current inside the tank. It incorporates up to two inlet tubes. One is the traditional top connect version and the other is a front connection configuration.

The Defender Safety System® and Eco-Defender Safety System®

The Defender Safety System® and Eco-Defender Safety System® are proven combustion technologies that resist the ignition of flammable vapors outside the water heater. They offer outstanding efficiency and a long service life while providing virtually maintenance free operation. The Eco-Defender uses a radiant burner and an advanced control to cut normal NOx emission by 75% over standard models.



page 5

INNOVATION AND RESOURCES



Bradford White ICON System™ Intelligent Gas Control

Bradford White's exclusive gas control technology offers numerous benefits including Advanced Temperature Control for consistent and accurate water temperature levels, Performance Software for enhanced First Hour Delivery ratings and tighter temperature differentials, Intelligent Diagnostics to assist in troubleshooting, and Pilot-On-Indication. The ICON System™ is another competitive advantage for specifiers, professional installers, and wholesalers. Best of all, it's provided at no extra cost.

Bradford White ICON HD™ Integrated Commercial Control System

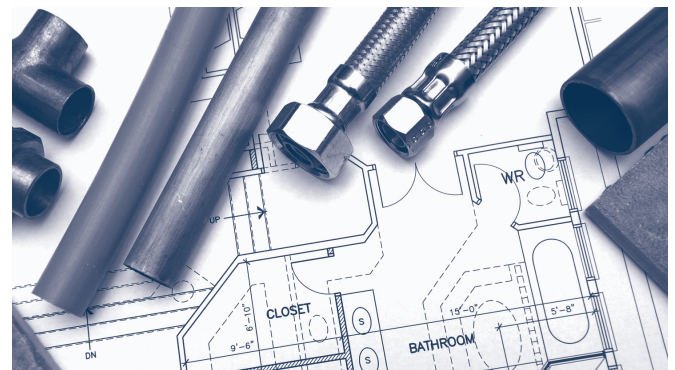
Bradford White's ICON HD is an intelligent integrated control that offers improved reliability and reduced downtime. It combines temperature control, diagnostic codes, and system functions and status into a single digital LCD interface. Available only from Bradford White, it comes standard on our entire line of heavy duty electronic ignition commercial water heaters.



page 6

RightSpec® Commercial Product Sizing Program

When the industry needed a tool to make sure they sized the right water heater for the job, Bradford White brought out the first user-friendly electronic sizing program. It is the most comprehensive and intuitive program of its kind. You get real time solutions to any commercial installation and more. You can feel confident that when you use RightSpec®, you are specifying it right the first time! Specifiers can also find Revit drawings of our commercial products on BIMobject® and SmartBIM®.



Phone Apps

Bradford White's RightSpec® Cross Reference, Warranty Check, and eF Series® Efficiency Calculator Apps are available for both Android™ and iOS platform devices. They are intuitive and easy-to-use and help save valuable time in the field. Visit Bradfordwhite.com for full details and download links.



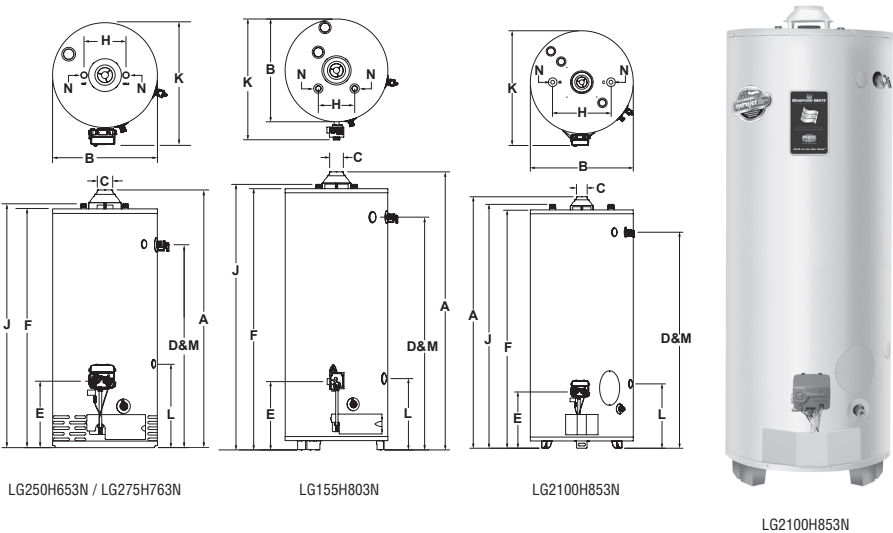
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Commercial Gas

Light Duty Atmospheric Vent High Input Models

8/9

- Bradford White ICON System™
 - Enhanced Performance
 - Advanced Temperature Control System
 - Intelligent Diagnostics
 - Separate Immersed Thermowell
 - Defender Safety System® featuring the patented advanced ScreenLok® Technology flame arrestor design (LG250H653N model only)
 - Resettable Thermal Switch
 - Maintenance-Free
 - Sight Window
 - Pedestal Base
 - Hydrojet 2™ Total Performance System
 - Vitraglas® Lining
- Side Connections—3/4" (19mm) NPT
 - Non-CFC Foam Insulation
 - Water Connections
 - Hand Hole Cleanout
 - Protective Magnesium Anode Rod
 - 4" (107mm) "Snap Lock" Draft Diverter
 - T&P Relief Valve
 - Low Restrictive Brass Drain Valve
 - Thermostatic Mixing Valve (ASSE Approved) (LG155H803N only)



Light Duty Atmospheric Vent High Input Models

DIMENSIONS IN INCHES

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed

NATURAL GAS MODELS						Recovery 100°F Rise*		A	B	C	D	E	F	H	J	K	L	M	N	
Model Number	Nominal Gal. Cap.	DOE Rated Storage Volume	Input BTU/Hr.	1st Hour Rating (Gal.)	Uniform Energy Factor	Nat U.S. GPH	Nat Imp. GPH	Floor to Flue Conn.	Jacket Dia.	Vent Size	Floor to T&P Conn.	Floor to Gas Conn.	Floor to Top of Heater	C/L of Water Conn.	Floor to Water Conn.	Depth	Floor to Space Heating Inlet	Floor to Space Heating Outlet	NPT	Approx. Shipping Weight (lbs)
LG250H653N	48	46	65,000	104	0.63	63	53	60	22	4	49 ¹⁵ / ₁₆	13	56 ⁵ / ₈	11	57 ⁷ / ₈	26	13 ¹ / ₂	49 ¹⁵ / ₁₆	¾	193
LG155H803N	55	55	80,000	117	0.61	78	65	59½	22	4	49 ⁷ / ₈	14 ¹³ / ₁₆	55 ¹⁵ / ₁₆	8	57 ⁷ / ₈	25 ⁷ / ₈	15 ⁷ / ₁₆	49 ⁷ / ₈	¾	207
LG275H763N	75	72	76,000	126	0.59	74	62	62 ⁵ / ₈	24	4	51 ⁷ / ₈	15	59	11	60 ⁷ / ₁₆	27 ¹ / ₄	16 ⁵ / ₈	51 ⁷ / ₈	1	263
LG2100H853N	100	95	85,000	137	0.57	82	69	71½	28¼	4	59 ⁵ / ₁₆	15 ⁷ / ₁₆	65½	16	66 ¹⁵ / ₁₆	31½	17 ¹¹ / ₁₆	50 ⁵ / ₈	1¼	424

Propane models feature a Titanium Stabilized Stainless Steel propane burner. For Propane (LP) models change suffix “N” to “X”.

For 5 year models, change suffix “3” to “5”. *Based on manufacturer’s rated recovery efficiency.

LG2100H853N model features hand hole cleanout.

Uniform Energy Factor and First Hour Rating are based on the latest AHRI directory listings.

NSF kits available.

LP GAS MODELS		Input BTU/Hr.	Recovery 100°F Rise*	
Model Number			LP U.S. GPH	LP Imp. GPH
LG250H653X		61,000	59	49
LG155H803X		78,000	76	63
LG275H763X		76,000	74	62
LG2100H853X		88,000	85	71

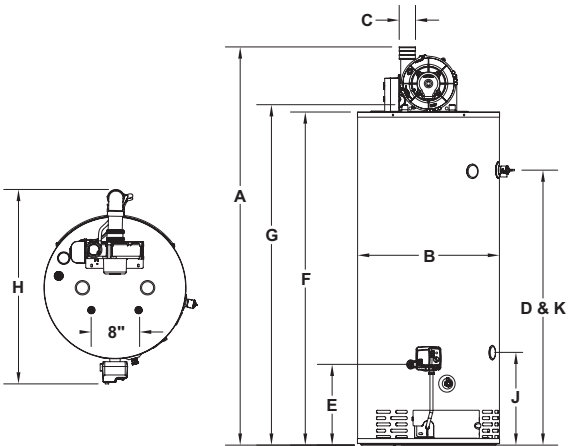
For above models please note recovery changes for LP.

Commercial Gas

Light Duty High Efficiency eF Series® Power Vent Models 90%+ Thermal Efficiency

10/11

- Vertical, Dual-pass Heat Exchanger System
 - Vitraglas® Protection—On both primary and secondary heat exchanger
 - Self-priming Condensate Tee
 - Power Vent
 - Horizontal and Vertical Venting
 - Bradford White ICON System™
 - Enhanced Performance
 - Advanced Temperature Control System
 - Intelligent Diagnostics
 - Hydrojet® Total Performance System
 - Vitraglas® Lining
 - 2" Non-CFC Foam Insulation
 - Pedestal Base
 - Water Connections—3/4" NPT
 - 3/4" NPT Side Connections
 - Heat Traps
 - Two Protective Anode Rods
- T&P Relief Valve
 - Low Restrictive Brass Drain Valve



LC2PV50H763N

Light Duty High Efficiency eF Series® Power Vent Models

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed

NATURAL GAS AND LIQUID PROPANE GAS MODELS							Recovery 90°F Rise*	A	B	C	D	E	F	G	H	J	K	
Model Number	Nominal Gal. Cap.	DOE Rated Storage Volume	Input BTU/Hr.	1st Hour Rating (Gal.)	Uniform Energy Factor	U.S. GPH		Floor to Vent Conn.	Jacket Dia.	Vent Size	Floor to T&P Conn.	Floor to Gas Conn.	Floor to Top of Heater	Floor to Water Conn.	Depth	Floor to Space Heating Inlet	Floor to Space Heating Outlet	Approx. Shipping Weight (lbs)
LC2PV50H763N	50	49	76,000	131	0.79	83		67¼	24	2	46½	13⅝	56¼	57½	27⅜	15⅝	46½	225

Propane models feature a Titanium Stabilized Stainless Steel propane burner. For Propane (LP) models change suffix "N" to "X".
* Based on 90.5% Thermal Efficiency.

LC2PV50H763N	2" Vent Pipe	3" Vent Pipe	4" Vent Pipe
Max. Equivalent Length	†50 ft.	†120 ft.	†180 ft.
Min. Equivalent Length	7 ft.	15 ft.	15 ft.
Number of 90° Elbows	1	45 ft.	115 ft.
	2	40 ft.	110 ft.
	3	35 ft.	105 ft.

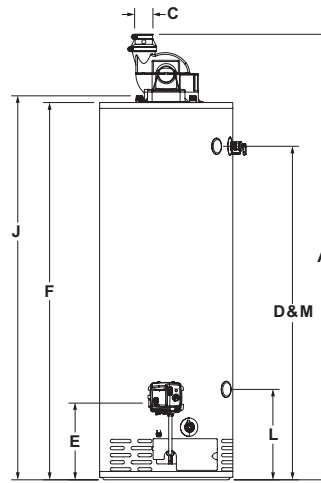
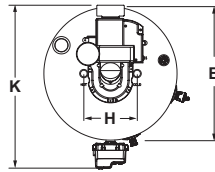
Subtract 5ft. for each additional 90° elbow.
† For high altitude installations, consult the installation instructions.



Commercial Gas Light Duty TTW® Power Vent Models

12/13

- Bradford White ICON System™
 - Enhanced Performance
 - Advanced Temperature Control System
 - Intelligent Diagnostics
 - Separate Immersed Thermowell
- Powerful Blower Motor
 - 10 ft. Power Cord Included (120 VAC)
- Horizontal and Vertical Venting
- Defender Safety System® featuring the patented advanced ScreenLok® Technology flame arrestor design (except models above 75,000 BTU/Hr.)
 - Flammable Vapor Sensor
 - Maintenance-Free
 - Sight Window
 - Pedestal Base
- Hydrojet® Total Performance System
- Vitraglas® Lining
- Non-CFC Foam Insulation
- Water Connections—3/4" NPT
- 3/4" NPT Side Connections
- Heat Traps
- Protective Magnesium Rod
- T&P Relief Valve
- Low Restrictive Brass Drain Valve
- Thermostatic Mixing Valve (ASSE Approved) (LG1PV55)



LG2PV50H653N

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Light Duty TTW® Power Vent Models

DIMENSIONS IN INCHES

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed
80% Recovery Efficiency

NATURAL GAS MODELS						Recovery 100°F Rise*		A	B	C	D	E	F	H	J	K	L	M	Approx. Shipping Weight (lbs)
Model Number	Nominal Gal. Cap.	DOE Rated Storage Volume	Input BTU/Hr.	1st Hour Rating (Gal.)	Uniform Energy Factor	Nat U.S. GPH	Nat Imp. GPH	Floor to Flue Conn.	Jacket Dia.	Vent Size	Floor to T&P Conn.	Floor to Gas Conn.	Floor to Top of Heater	C/L of Water Conn.	Floor to Water Conn.	Depth	Floor to Space Heating Inlet	Floor to Space Heating Outlet	
LG2PV50H653N	48	46	65,000	106	0.71	63	52	66 ¹ / ₈	22	3 or 4	50 ¹ / ₈	11 ³ / ₄	56 ³ / ₈	11	57 ³ / ₄	26 ³ / ₄	13 ¹ / ₂	50 ¹ / ₈	186
LG1PV55H783N	55	55	78,000	118	0.61	76	63	64 ³ / ₁₆	22	3 or 4	47 ¹⁵ / ₁₆	11 ¹ / ₂	54 ⁵ / ₈	8	56	26 ¹ / ₂	13 ³ / ₈	47 ¹⁵ / ₁₆	253
LG2PV75H763N	75	72	76,000	126	0.59	74	62	69 ⁷ / ₁₆	26	3 or 4	51 ¹ / ₂	13 ¹ / ₂	59 ¹ / ₂	11	60 ³ / ₄	30 ¹ / ₄	13 ³ / ₈	51 ¹ / ₂	252

Propane models feature a Titanium Stabilized Stainless Steel propane burner. For Propane (LP) models change suffix "N" to "X". For 5 year models, change suffix from "3" to "5".

* Based on manufacturer's rated recovery efficiency.

120 VAC Required for Power Venting / 120 VAC 60HZ 3.1 Amperes.
Uniform Energy Factor and First Hour Rating are based on the latest AHRI directory listings.

	3" Vent Pipe	4" Vent Pipe
	LG2PV50H653N LG1PV55H753N LG2PV75H753N	
Max. Equivalent Length	†50 ft.	†180 ft.
Min. Equivalent Length	7 ft.	15 ft.
Number of 90° Elbows	1 45 ft. 2 40 ft. 3 35 ft.	175 ft. 170 ft. 165 ft.

Subtract 5ft. for each additional 90° elbow

† For high altitude installations, consult the installation instructions.

LP GAS MODELS		Input BTU/Hr.	Recovery 100°F Rise*
Model Number			LP U.S. GPH
LG2PV50H653X		58,000	56 47
LG1PV55H783X		78,000	76 63
LG2PV75H763X		75,500	73 61

For above models please note recovery changes for LP.

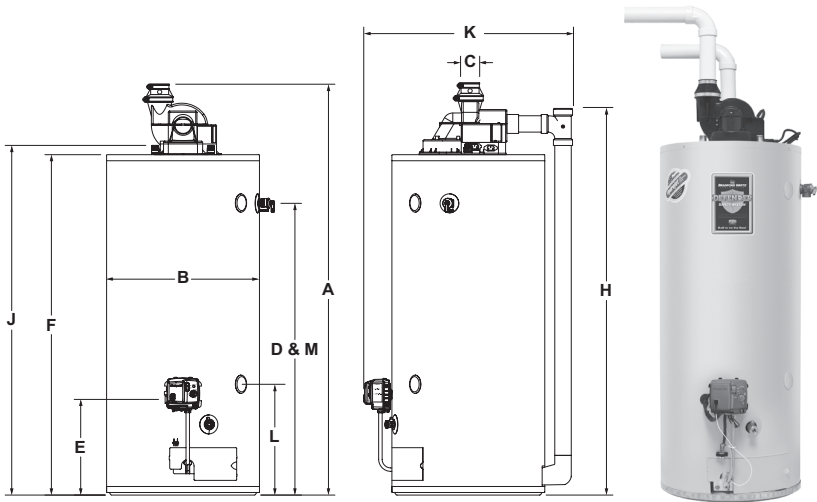


Commercial Gas

Light Duty Power Direct Vent Models

14/15

- Bradford White ICON System™
 - Enhanced Performance
 - Advanced Temperature Control System
 - Intelligent Diagnostics
 - Separate Immersed Thermowell
 - Defender Safety System®
 - Flammable Vapor Sensor
 - Maintenance-Free
 - Sight Window
 - Pedestal Base
 - Powerful Blower Model
 - 10 ft. Power Cord Included (120 VAC)
 - Closed Combustion Venting System
 - Cast Aluminum Air Intake Boot
 - Horizontal and Vertical Venting
 - Optional Concentric Vent Kit Termination
- Hydrojet® Total Performance System
 - Vitraglas® Lining
 - 2" Non-CFC Foam Insulation
 - Water Connections—3/4" NPT
 - Side Connections—3/4" NPT
 - Heat Traps
 - Protective Magnesium Anode Rod
 - T&P Relief Valve
 - Low Restrictive Brass Drain Valve



LG2PDV50H603N

Light Duty Power Direct Vent Models

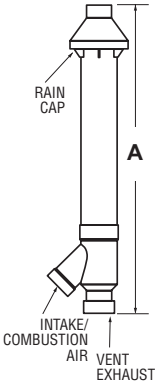
DIMENSIONS IN INCHES

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed
78% Recovery Efficiency

NATURAL GAS MODELS						Recovery 100°F Rise*		A	B	C	D	E	F	H	J	K	L	M	
Model Number	Nominal Gal. Cap.	DOE Rated Storage Volume	Input BTU/Hr.	1st Hour Rating (Gal.)	Uniform Energy Factor	Nat U.S. GPH	Nat Imp. GPH	Floor to Exhaust Outlet	Jacket Dia.	Vent Size	Floor to T&P Conn.	Floor to Gas Conn.	Floor to Top of Heat	Floor to Air Intake	Floor to Water Conn.	Depth	Floor to Space Heating Return	Floor to Space Heating Supply	Approx. Shipping Weight (lbs)
LG2PDV50H603N	48	46	60,000	95	0.69	58	48	69	22	3 or 4	52 ¹ / ₄	13 ⁵ / ₈	58 ³ / ₄	67	60	30 ⁵ / ₈	15 ³ / ₄	52 ¹ / ₄	205
LG2PDV75H803N	75	72	80,000	126	0.59	77	64	72	26	3 or 4	54 ¹ / ₄	16 ¹ / ₄	62 ³ / ₄	70 ³ / ₈	63 ³ / ₄	36	19	54 ¹ / ₄	392

Propane models feature a Titanium Stabilized Stainless Steel propane burner.
For Propane (LP) models change suffix "N" to "X".
For 5 year models change suffix from "3" to "5".
* Based on manufacturer's rated recovery efficiency.
120 VAC Required for Power Venting / 120 VAC, 60HZ, 3.1 Amperes.
Uniform Energy Factor and First Hour Rating are based on the latest AHRI directory listings.

For models to the right please note recovery changes for LP.



Concentric Vent Kit Termination	
3" Kit	A (in.)
P/N 239-44069-01	29 ¹ / ₄

LP GAS MODELS		Input BTU/Hr.	Recovery 100°F Rise*	
Model Number			LP U.S. GPH	LP Imp GPH
LG2PDV50H603X		60,000	58	48
LG2PDV75H803X		78,000	76	63
		3" Vent Pipe	4" Vent Pipe	
		LG2PDV50H603N LG2PDV75H803N		
Max. Intake Length		60 ft.	100 ft.	
Max. Exhaust Length		60 ft.	100 ft.	
Min. Vent Length		7 ft.	7 ft.	
Number of	1	55 ft.	95 ft.	
	2	50 ft.	90 ft.	
90° Elbows	3	45 ft.	85 ft.	

Subtract 5ft. for each additional 90° elbow.

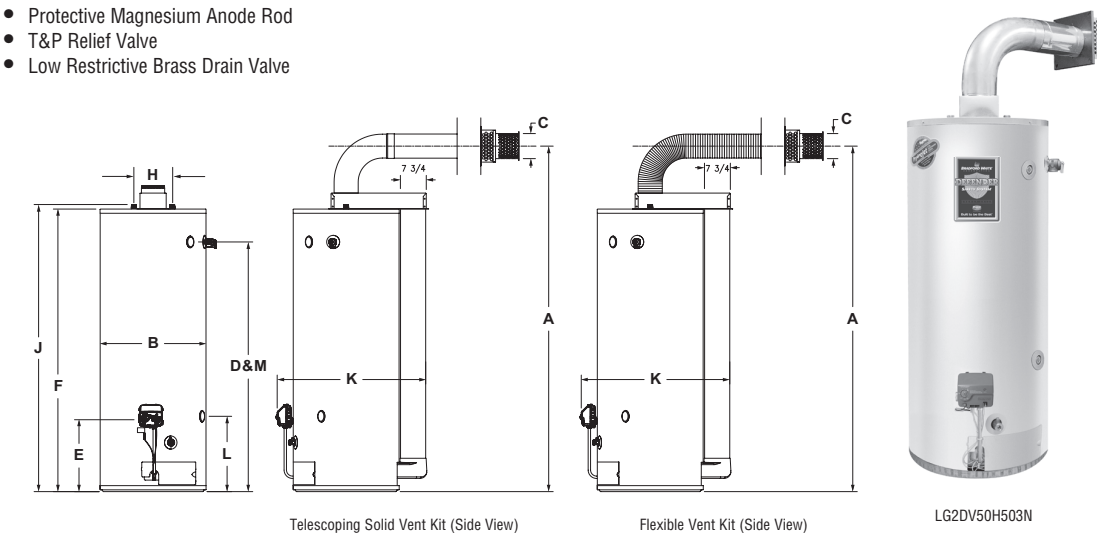


Commercial Gas

Light Duty Direct Vent Models

16/17

- Bradford White ICON System™
 - Enhanced Performance
 - Advanced Temperature Control System
 - Intelligent Diagnostics
 - Separate Immersed Thermowell
- Defender Safety System®
 - Resettable Thermal Switch
 - Maintenance-Free
 - Sight Window
 - Pedestal Base
- Closed Combustion
- Reinforced Seals
- Hydrojet® Total Performance System
- Vitraglas® Lining
- Cast Aluminum Air Intake Boot
- Telescoping Solid Vent Kits
- Flexible Vent Kit
- Side Connections—3/4" NPT
- 2" Non-CFC Foam Insulation
- Water Connections—3/4" NPT
- Heat Traps



Light Duty Direct Vent Models

DIMENSIONS IN INCHES

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed
78% Recovery Efficiency

NATURAL GAS MODELS						Recovery 100°F Rise*		A	B	C	D	E	F	H	J	K	L	M	
Model Number	Nominal Gal. Cap.	DOE Rated Storage Volume	Input BTU/Hr.	1st Hour Rating (Gal.)	Uniform Energy Factor	Nat U.S. GPH	Nat Imp. GPH	Floor to C/L of Vent	Jacket Dia.	Vent Size I.D. O.D.	Floor to T&P Conn.	Floor to Gas Conn.	Floor to Top of Heater	C/L of Water Conn.	Floor to Water Conn.	Depth	Floor to Space Heating Inlet	Floor to Space Heating Outlet	Approx. Shipping Weight (lbs)
LG2DV50H503N	48	46	50,000	89	0.63	47	39	72 ⁵ / ₁₆ min.	22	4 6	52 ¹ / ₄	15	59 ¹ / ₈	8	60 ¹ / ₈	31	15 ³ / ₄	52 ¹ / ₄	217

All Propane models feature a Titanium Stabilized Stainless Steel propane burner. For Propane (LP) models change suffix "N" to "X".

For 5 year models change suffix from "3" to "5".

* Based on manufacturer's rated recovery efficiency.

Uniform Energy Factor and First Hour Rating are based on the latest AHRI directory listings.

Solid Vent Kit: Part No. 239-51286-00. Weight: 22 lbs.

Flexible Vent Kit: Part No. 239-51287-00. Weight: 13 lbs.

Kits can be ordered and shipped with water heater, or ordered and shipped separately. For vent kit components and venting instructions, refer to Installation and Operation Manual.

LG2DV50H503N Optional Telescoping Solid Vent Kits:

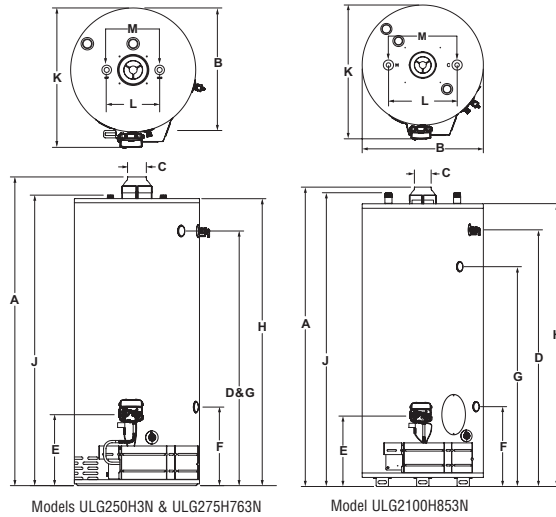
Kit "F"	Telescopes from 4 ³ / ₈ " to 5 ¹ / ₈ "	Part No. 239-42516-00
Kit "G"	Telescopes from 6 ¹ / ₂ " to 9"	Part No. 239-42517-00
Kit "H"	Telescopes from 13 ³ / ₈ " to 23 ¹ / ₈ "	Part No. 239-42514-00
Kit "I"	Telescopes from 49 ³ / ₈ " to 95 ³ / ₈ "	Part No. 239-42512-00

LP GAS MODELS		Input BTU/Hr.	Recovery 100°F Rise*	
Model Number			LP U.S. GPH	LP Imp. GPH
LG2DV50H503X		48,000	45	38

For above models please note recovery changes for LP.

18/19

- Bradford White ICON System™
 - Enhanced Performance
 - Advanced Temperature Control System
 - Intelligent Diagnostics
 - Separate Immersed Thermowell
- Ultra Low NOx Burner with Primary and Secondary Air Distribution Devices
- Maintenance-Free
- Sight Window
- Hydrojet 2™ Total Performance System
- Vitraglas® Lining
- More Precise Temperature Control
- Side Connections—3/4" NPT
- Non-CFC Foam Insulation
- Pedestal Base—ULG250&75
- Water Connections
- Protective Magnesium Anode Rod
- Hand Hole Cleanout
- 4" (107 mm) "Snap Lock" Draft Diverter
- T&P Relief Valve
- Low Restrictive Brass Drain Valve
- Design Certified by CSA International (formerly AGA and CGA)
- ULG250H553N Complies with the Latest Ultra Low NOx Requirement (10 ng/J NOx limit), ULG275H763N / ULG2100H853N (14 ng/J NOx limit)



ULG275H763N

**Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed
79% Recovery Efficiency**

NATURAL GAS MODELS						Recovery 90°F Rise*		A	B	C	D	E	F	G	H	J	K	L	M	
Model Number	Nominal Gal. Cap.	DOE Rated Storage Volume	Input BTU/Hr.	1st Hour Rating (Gal.)	Uniform Energy Factor	Nat U.S. GPH	Nat Imp. GPH	Floor to Flue Conn.	Jacket Dia.	Vent Size	Floor to T&P Conn.	Floor to Gas Conn.	Floor to Space Heating Return	Floor to Space Heating Outlet	Floor to Top of Heater	Floor to Water Conn.	Depth	C/L of Water Conn	NPT	Approx. Shipping Weight (lbs)
ULG250H553N	48	46	55,000	90	0.63	59	49	60 ⁵ / ₁₆	22	4	49 ⁷ / ₈	11 ¹ / ₂	13 ³ / ₈	49 ⁷ / ₈	56 ³ / ₈	57 ¹³ / ₁₆	25 ⁷ / ₁₆	11	3/4	193
ULG275H763N	75	72	76,000	126	0.59	74	62	64 ¹ / ₈	26	4	53 ⁹ / ₁₆	15 ¹ / ₈	16 ⁵ / ₈	53 ⁹ / ₁₆	60 ¹ / ₈	61 ¹ / ₈	29 ⁷ / ₁₆	11	1	263
ULG2100H853N	100	95	85,000	137	0.57	82	69	72 ⁵ / ₈	28 ¹ / ₄	4	60 ⁷ / ₁₆	16 ³ / ₄	18 ³ / ₄	51 ³ / ₄	66 ⁵ / ₈	66 ⁵ / ₈	31 ¹ / ₂	16	1 ¹ / ₄	424

Uniform Energy Factor and First Hour Rating are based on the latest AHRI directory listings.

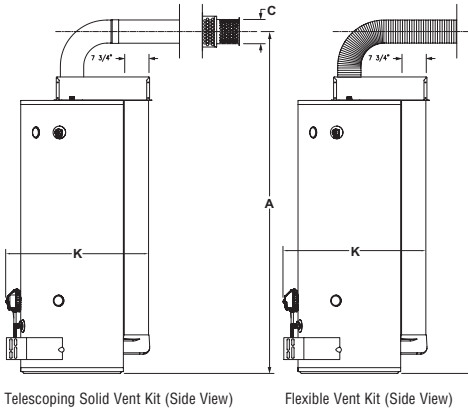
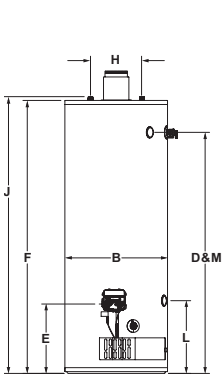


Commercial Gas

Light Duty Ultra Low NOx Direct Vent Model

20/21

- Bradford White ICON System™
 - Enhanced Performance
 - Advanced Temperature Control System
 - Intelligent Diagnostics
 - Separate Immersed Thermowell
 - Eco-Defender Safety System®
 - Digital Thermal Sensor
 - Maintenance-Free
 - Sight Window
 - Pedestal Base
 - Ultra Low NOx Burner with Primary and Secondary Air Distribution Devices
 - Closed Combustion
 - Reinforced Seals
 - Hydrojet® Total Performance System
 - Vitraglas® Lining
 - Cast Aluminum Air Intake Boot
 - Telescoping Solid Vent Kits
 - Flexible Vent Kit
 - Side Connections—3/4" NPT
 - 2" Non-CFC Foam Insulation
- Water Connections—3/4" NPT
 - Heat Traps
 - Protective Magnesium Anode Rod
 - T&P Relief Valve
- Low Restrictive Brass Drain Valve
 - Design Certified by CSA International (formerly AGA and CGA)
 - Complies with the Latest Ultra Low NOx Requirement (10 ng/J NOx limit)



ULG2DV50H453N

Light Duty Ultra Low NOx Direct Vent Model

DIMENSIONS IN INCHES

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed
78% Recovery Efficiency

NATURAL GAS MODELS						Recovery 100°F Rise*		A	B	C	D	E	F	H	J	K	L	M	
Model Number	Nominal Gal. Cap.	DOE Rated Storage Volume	Input BTU/Hr.	1st Hour Rating (Gal.)	Uniform Energy Factor	Nat U.S. GPH	Nat Imp. GPH	Floor to C/L of Vent	Jacket Dia.	Vent Size I.D. O.D.	Floor to T&P Conn.	Floor to Gas Conn.	Floor to Top of Heater	C/L of Water Conn.	Floor to Water Conn.	Depth	Floor to Space Heating Inlet	Floor to Space Heating Outlet	Approx. Shipping Weight (lbs)
ULG2DV50H453N	48	46	45,000	83	0.63	43	35	74 1/4 min.	22	4 6	52 1/4	15	59 1/4	11	60 1/8	30 5/8	15 3/4	52 1/4	201

Available in Natural Gas only. For 5 year models change suffix from "3" to "5".
* Based on manufacturer's rated recovery efficiency.
Uniform Energy Factor and First Hour Rating are based on the latest AHRI directory listings.

Solid Vent Kit: Part No. 239-51286-00. Weight: 22 lbs.
Flexible Vent Kit: Part No. 239-51287-00. Weight: 13 lbs.
Kits can be ordered and shipped with water heater, or ordered and shipped separately. For vent kit components and venting instructions, refer to Installation and Operation Manual.

- Optional Telescoping Solid Vent Kits:**
- | | | |
|---------|-------------------------------------|-----------------------|
| Kit "F" | Telescopes from 4 3/4" to 5 1/8" | Part No. 239-42516-00 |
| Kit "G" | Telescopes from 6 1/2" to 9 3/8" | Part No. 239-42517-00 |
| Kit "H" | Telescopes from 13 3/4" to 23 1/8" | Part No. 239-42514-00 |
| Kit "I" | Telescopes from 49 9/16" to 95 1/8" | Part No. 239-42512-00 |

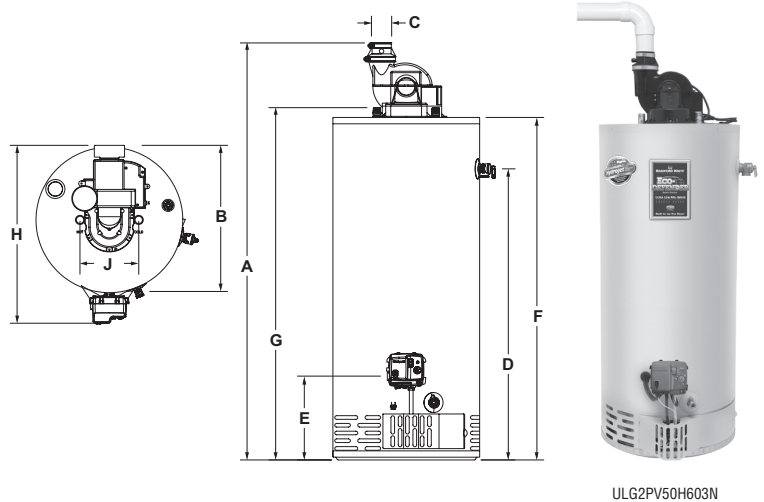


Commercial Gas

22/23

Light Duty Ultra Low NOx TTW® Power Vent Model

- Ultra Low NOx Burner with Primary and Secondary Air Distribution Devices
- Eco-Defender Safety System® featuring the patented advanced ScreenLok® Technology flame arrestor design (except models above 75,000 BTU/Hr.)
 - Digital Thermal Sensor
 - Flammable Vapor Sensor
 - Maintenance-Free
 - Sight Window
 - Pedestal Base
- Bradford White ICON System™
 - Enhanced Performance
 - Advanced Temperature Control System
 - Intelligent Diagnostics
 - Separate Immersed Thermowell
- Powerful Blower Motor
 - 10 ft. Power Cord Included (120 VAC)
- Horizontal and Vertical Venting
- Hydrojet® Total Performance System
- Vitraglas® Lining
- Non-CFC Foam Insulation
- Water Connections—3/4" NPT
- Heat Traps
- Protective Magnesium Anode Rod
- T&P Relief Valve
- Low Restrictive Brass Drain Valve
- All Models Comply with the Latest Ultra Low NOx Requirement (10 ng/J NOx limit) except ULG2PV75H763N (14 ng/J NOx limit)



ULG2PV50H603N

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Ultra Low NOx TTW® Power Vent Model

DIMENSIONS IN INCHES

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed
80% Recovery Efficiency

NATURAL GAS MODELS						Recovery 100°F Rise*		A	B	C	D	E	F	G	H	J	
Model Number	Nominal Gal. Cap.	DOE Rated Storage Volume	Input BTU/Hr.	1st Hour Rating (Gal.)	Uniform Energy Factor	Nat U.S. GPH	Nat Imp. GPH	Floor to Vent Conn.	Jacket Dia.	Vent Size	Floor to T&P Conn.	Floor to Gas Conn.	Floor to Top of Heater	Floor to Water Conn.	Depth	C/L of Water Conn.	Approx. Shipping Weight (lbs)
ULG2PV50H563N	48	46	56,000	90	0.70	54	54	66 ³ / ₈	22	3 or 4	49 ⁷ / ₈	11 ³ / ₄	56 ⁵ / ₈	58	26 ¹ / ₂	11	190
ULG2PV75H763N	75	72	76,000	126	0.59	74	62	69 ¹ / ₄	26	3 or 4	51 ⁷ / ₈	11 ³ / ₄	59 ¹ / ₂	61	30 ¹ / ₄	11	270

Available in Natural Gas only. For 5 year models, change suffix from "3" to "5".

* Based on manufacturer's rated recovery efficiency.

120 VAC Required for Power Venting / 120 VAC, 60HZ, 3.1 Amperes.

Uniform Energy Factor and First Hour Rating are based on the latest AHRI directory listings.

	3" Vent Pipe	4" Vent Pipe
	ULG2PV50H563N ULG2PV75H763N	
Max. Equivalent Length	†50 ft.	†180 ft.
Min. Equivalent Length	7 ft.	15 ft.
Number	1	45 ft.
of	2	40 ft.
90° Elbows	3	35 ft.
		165 ft.

† For high altitude installations, consult the installation instructions.

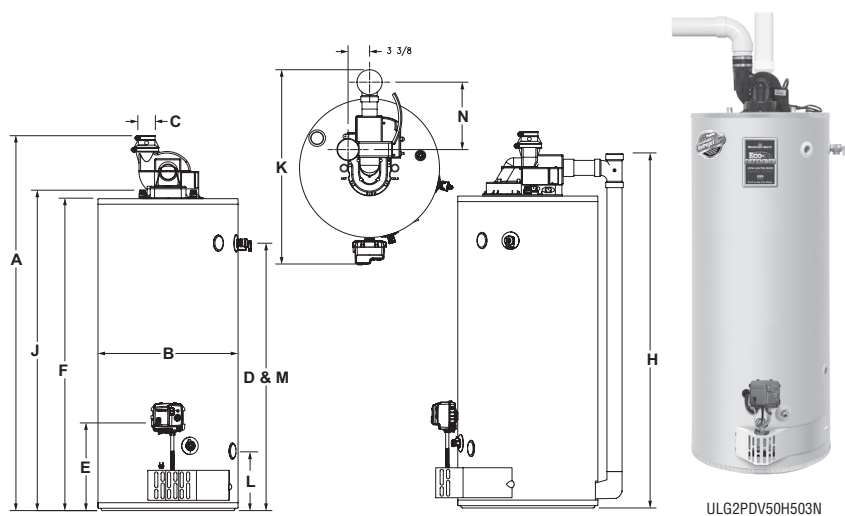
page 23

Commercial Gas

Light Duty Ultra Low NOx Power Direct Vent Models

24/25

- Ultra Low NOx Burner with Primary and Secondary Air Distribution Devices
 - Eco-Defender Safety System®
 - Digital Thermal Sensor
 - Flammable Vapor Sensor
 - Maintenance-Free
 - Sight Window
 - Pedestal Base
 - Closed Combustion Venting System
 - Bradford White ICON System™
 - Enhanced Performance
 - Advanced Temperature Control System
 - Intelligent Diagnostics
 - Separate Immersed Thermowell
 - Cast Aluminum Air Intake Boot
- Hydrojet® Total Performance System
 - Vitraglas® Lining
 - Optional Concentric Vent Kit Termination
 - Horizontal and Vertical Venting
 - 2" Non-CFC Foam Insulation
 - Water Connections—3/4" NPT
 - Side Connections—3/4" NPT
 - Heat Traps
 - Protective Magnesium Anode Rod
 - T&P Relief Valve
 - Low Restrictive Brass Drain Valve
 - Complies with the Latest Ultra Low NOx Requirement (10 ng/J NOx Limit)



Light Duty Ultra Low NOx Power Direct Vent Model

DIMENSIONS IN INCHES

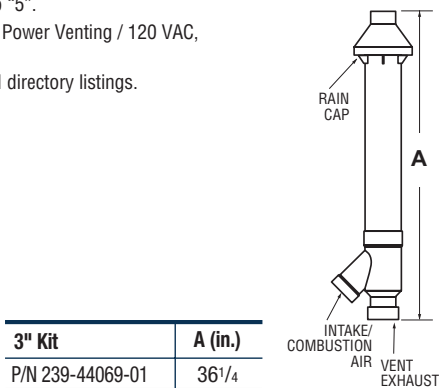
Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed
78% Recovery Efficiency

NATURAL GAS MODEL						Recovery 100°F Rise*		A	B	C	D	E	F	H	J	K	L	M	N	
Model Number	Nominal Gal. Cap.	DOE Rated Storage Volume	Input BTU/Hr.	1st Hour Rating (Gal.)	Uniform Energy Factor	Nat U.S. GPH	Nat Imp. GPH	Floor to Exhaust Outlet	Jacket Dia.	Vent Size	Floor to T&P Conn.	Floor to Gas Conn.	Floor to Top of Heater	Floor to Air Intake	Floor to Water Conn.	Depth	Floor to Space Heating Return	Floor to Space Heating Supply	C/L Distance From Intake to Exhaust	Approx. Shipping Weight (lbs)
ULG2PDV50H503N	48	46	50,000	85	0.68	48	40	69¼	22	3 or 4	52¼	13⅞	69¼	58¾	60	32	15¾	52¼	9¼	201

Available in Natural Gas only. For 5 year models change suffix from "3" to "5".

* Based on manufacturer's rated recovery efficiency. 120 VAC Required for Power Venting / 120 VAC, 60HZ, 3.1 Amperes.

Uniform Energy Factor and First Hour Rating are based on the latest AHRI directory listings.



3" Kit	A (in.)
P/N 239-44069-01	36 1/4

	ULG2PDV50H503N	
	3" Vent Pipe	4" Vent Pipe
Max. Intake Length	60 ft.	100 ft.
Max. Exhaust Length	60 ft.	100 ft.
Min. Vent Length	7 ft.	7 ft.
Number of 90° Elbows	1 2 3	95 ft. 90 ft. 85 ft.

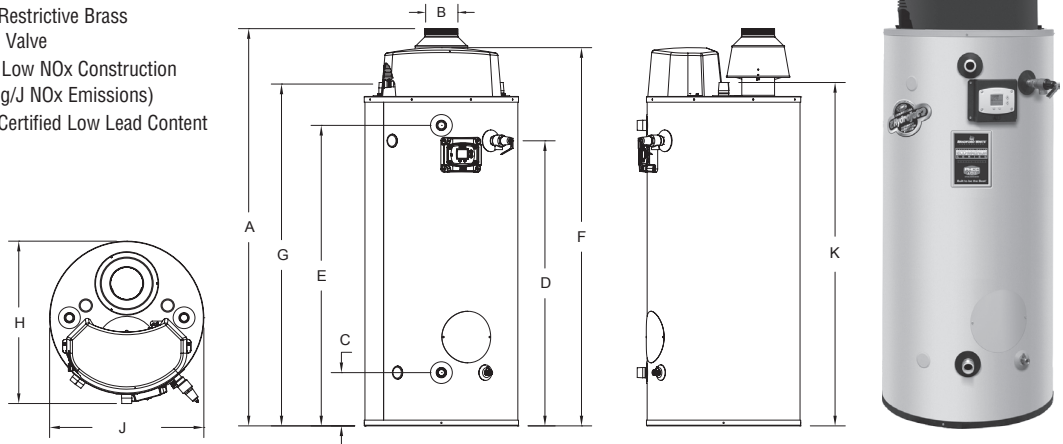
Subtract 5ft. for each additional 90° elbow.



Commercial Gas Commander Series™ Atmospheric Vent Models

26/27

- ICON HD™
 - Operation Mode
 - Service Mode
- Optional Air Intake Ducting
- Premix Power Burner
- Direct Spark Ignition
- Integrated Exhaust System
- Sanitizing Capability
- Hydrojet® Sediment Reduction System
- Vitraglas® Lining
- Non-CFC Foam Insulation
- Water Connections
- 1" NPT Side Connections for Space Heating
- 82% Thermal Efficiency
- Zero Inch Clearance to Combustibles (Excluding UCG-100H-399)
- Hand Hole Cleanout
- NSF Construction Available
- T&P Relief Valve
- Low Restrictive Brass Drain Valve
- Ultra Low NOx Construction (14 ng/J NOx Emissions)
- CSA Certified Low Lead Content



UCG-100H-199-3N

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Commander Series™ Atmospheric Vent Models

DIMENSIONS IN INCHES

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed
82% Thermal Efficiency

NATURAL GAS AND LIQUID PROPANE GAS MODELS			GPH Recovery at Degree Rise*			A	B	C	D	E	F	G	H	J	K				
Model Number	Gal. Cap.	Input BTU/Hr.	40°F	100°F	140°F	Floor to Top of Vent	Vent Dia.	Floor to Cold Water Inlet	Floor to T&P Conn.	Floor to Hot Water Outlet	Floor to Top of Heater	Floor to Gas Conn.	Depth	Width	Floor to Cold Water Inlet/Hot Water Outlet	Water Conn. Dia.	Gas Conn. Dia.	Relief Valve Open	Approx. Shipping Weight (lbs)
UCG-80H-125-3N	80	125,000	308	123	88	63	5	10	44	47	61 1/4	55 3/4	30	28 1/4	54 3/4	1 1/2	3/4	3/4	535
UCG-80H-199-3N	80	199,999	493	197	141	64 3/4	6	10	44	47	61 1/4	55 3/4	30	28 1/4	54 3/4	1 1/2	3/4	3/4	535
UCG-80H-270-3N	80	270,000	665	266	190	64 3/4	6	10	44	47	61 1/4	55 3/4	30	28 1/4	54 3/4	1 1/2	3/4	1	545
UCG-80H-399-3N	80	399,999	960	384	274	68 3/4	8	10	44	47	61 1/4	55 3/4	30	28 1/4	54 3/4	1 1/2	3/4	1	545
UCG-100H-199-3N	100	199,999	493	197	141	73 1/4	6	10	52 1/2	55 1/2	69 3/4	63 1/4	30	28 1/4	63 1/4	1 1/2	3/4	3/4	632
UCG-100H-270-3N	100	270,000	665	266	190	73 1/4	6	10	52 1/2	55 1/2	69 3/4	63 1/4	30	28 1/4	63 1/4	1 1/2	3/4	1	632
UCG-100H-399-3N	98	399,999	994	398	284	77 1/4	8	10	52 1/2	55 1/2	69 3/4	63 1/4	30	28 1/4	63 1/4	1 1/2	3/4	1	657

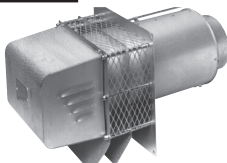
For Propane Gas models change suffix "N" to "X". Example: UCG-100H-199-3X (UCG-100H-399 available in Natural Gas only). Natural gas models comply with the latest Ultra Low NOx requirements (14 ng/J or less). Amp Draw range = 1.0 to 1.8 amps.

Optional Honeywell EnviraCOM™ Alarm Module — Provides indication (contacts are closed) when an alarm is present via normally open contacts (rated for up to 24 VAC).

Kit Number – 265-51961-00.

Optional Power Vent Kits – for side wall termination only.

Model Numbers	Kit Number
UCG-80H-125/199/270, UCG-100H-199/270:	239-81764-00
UCG-80H-399, UCG-100H-399:	239-81766-00



Optional Air Intake Ducting Maximum Lengths

Model	2" PVC, ABS, or CPVC	3" PVC, ABS, or CPVC	4" PVC, ABS, or CPVC
UCG-80H-125-3(N,X)	20 ft.	50 ft.	75 ft.
UCG-80H-199-3(N,X)	20 ft.	50 ft.	75 ft.
UCG-100H-199-3(N,X)	20 ft.	50 ft.	75 ft.
UCG-80H-270-3(N,X)	20 ft.	50 ft.	75 ft.
UCG-100H-270-3(N,X)	20 ft.	50 ft.	75 ft.
UCG-80H-399-3(N,X)	N/A	25 ft.	50 ft.
UCG-100H-399-3N	N/A	25 ft.	50 ft.

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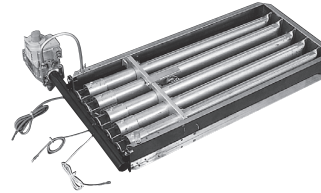
Commercial Gas Electronic Ignition Water Heaters

28/29

- ICON HD™—Intelligent proven design combines temperature control, diagnostic codes and system ignition functions into a single control board with a digital LCD display
 - Operation Mode
 - Service Mode
- Electronic Ignition
- Automatic Flue Damper
- Hydrojet® Sediment Reduction System
- Vitraglas® Lining
- Non-CFC Foam Insulation
- Water connections—True dielectric waterway fittings
- Hand Hole Cleanout
- Automatic Re-Set E.C.O.
- Magnesium Anode Rods
- Sanitizing Capability
- ASME Code Available on All Models above 200,000 BTU/Hr.
- NSF Construction Available
- Low NOx Construction Available
- North Carolina Code Compliant
- T&P Relief Valve
- Low Restrictive Brass Drain Valve

Commercial Gas Burner

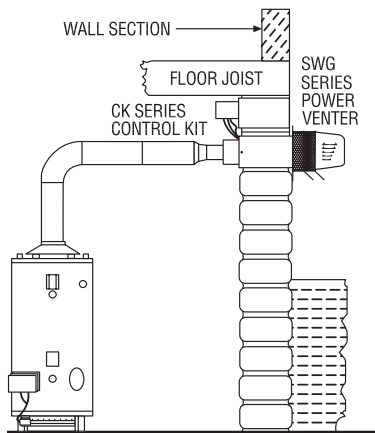
- Orifice Alignment Bracket for True Injection
- Stainless Steel Pilot Shield
- Stainless Steel Burner Rack and Mounting Bracket
- Aluminized Steel Burner Tubes with Adjustable Air Shutter (Stainless Steel Burner Tubes Available)
- Opposing Lance Formed Burner Ports Yield Consistent Performance to Stabilize Burner Flame and Promote Better Air Gas Mixture
- Standard on Both "T" and "L" Commercial Energy Saver Models



D-80T-180-3N

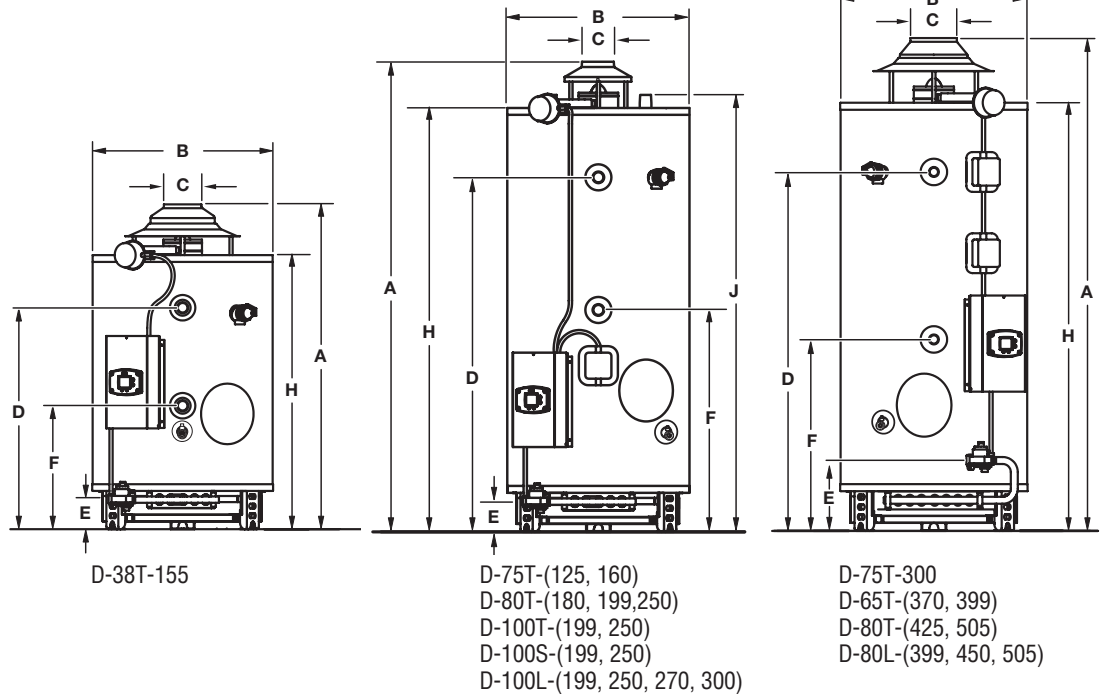
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Typical Applications



Optional Power Vent Kits – available for inputs from 125,000 to 505,000.

BTU Input Range	Kit Number
125,000 to 290,000 BTU's:	239-81764-00
300,000 to 399,999 BTU's:	239-81766-00
425,000 to 505,000 BTU's:	239-82148-00



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Commercial Gas Electronic Ignition Models

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Electronic Ignition Models

DIMENSIONS IN INCHES

These models meet or exceed both Thermal Efficiency and
Standby Loss Requirements of ASHRAE 90.1b (Current Edition).

NATURAL GAS MODELS						A	B	C	D	E	F	H	J					Approx. Shipping Weight (lbs)	
Model Number	Gal. Cap.	Input BTU/Hr.	GPH Recovery at °F Rise*			Top Vent Height	Jacket Dia.	Vent Dia.	Front Hot Water Conn.	Floor to Gas Conn.	Front Cold Water Conn.	Floor to Top of Heater	Floor to Top Water Conn.	Water Conn.	Gas Conn. Dia.	Relief Valve Open.		Approx. Shipping Weight (lbs)	
			40°	100°	140°													Std.	ASME
D-38T-155-3N+	38	155,000	376	150	107	51	28 1/4	6	35	4 5/8	19 3/8	43 1/2	—	1 1/2 (F)	3/4	3/4		438	—
D-75T-125-3N	75	125,000	303	121	86	72 1/4	28 1/4	5	54 1/2	4 3/4	34	65	67 1/8	1 1/2 (T&F)	3/4	3/4		520	—
D-75T-160-3N	75	160,000	389	155	111	72 1/4	28 1/4	6	54 1/2	4 3/4	34	65	67 1/8	1 1/2 (T&F)	3/4	3/4		520	—
D-80T-180-3N	80	180,000	436	175	124	71 7/8	28 1/4	6	56	4 3/4	19 1/2	64 1/2	66 1/4	1 1/2 (T&F)	3/4	3/4		540	—
D-80T-199-3N	80	199,999	485	194	139	71 7/8	28 1/4	6	56	4 3/4	19 1/2	64 1/2	66 1/4	1 1/2 (T&F)	3/4	3/4		540	—
D-80T-250-3N(A)	80	250,000	606	242	173	71 7/8	28 1/4	6	56	4 3/4	19 1/2	64 1/2	66 1/4	1 1/2 (T&F)	3/4	1		540	590
D-100T-199-3N	98	199,999	485	194	139	85 1/8	28 1/4	6	67	4 3/4	19 1/2	75 1/2	77 1/4	1 1/2 (T&F)	3/4	3/4		610	—
D-100T-250-3N(A)	98	250,000	606	242	173	85 1/8	28 1/4	6	67	4 3/4	19 1/2	75 1/2	77 1/4	1 1/2 (T&F)	3/4	1		610	690
D-75T-300-3N(A)	75	300,000	727	291	208	75 3/8	28 1/4	7	54 1/8	10 1/2	29	65 3/4	—	1 1/2 (F)	3/4	1		590	645
D-65T-370-3N(A)	65	370,000	897	359	256	73 1/4	28 1/4	8	54 1/8	10 1/2	29	64 3/4	—	1 1/2 (F)	1N 3/4 (LP)	1		665	720
D-65T-399-3N(A)†	65	399,999	970	388	277	73 1/4	28 1/4	8	54 1/8	10 1/2	29	64 3/4	—	1 1/2 (F)	1(N)	1		665	720
D-80T-425-3N(A)	80	425,000	1030	412	294	82 3/4	28 1/4	10	64 1/2	10 1/2	29	75 1/2	—	1 1/2 (F)	1N 3/4 (LP)	1		750	800
D-80T-505-3N(A)	80	505,000	1178	471	337	82 3/4	28 1/4	10	64 1/2	10 1/2	29	75 1/2	—	1 1/2 (F)	1N 3/4 (LP)	1		750	800

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Electronic Ignition Models

DIMENSIONS IN INCHES

These models meet or exceed both Thermal Efficiency and
Standby Loss Requirements of ASHRAE 90.1b (Current Edition).

NATURAL GAS MODELS						A	B	C	D	E	F	H	J					Approx. Shipping Weight (lbs)	
Model Number	Gal. Cap.	Input BTU/Hr.	GPH Recovery at °F Rise*			Top Vent Height	Jacket Dia.	Vent Dia.	Front Hot Water Conn.	Floor to Gas Conn.	Front Cold Water Conn.	Floor to Top of Heater	Floor to Top Water Conn.	Water Conn.	Gas Conn. Dia.	Relief Valve Open.		Approx. Shipping Weight (lbs)	
			40°	100°	140°													Std.	ASME
D-100S-199-3N	100	199,999	485	194	139	76 3/4	28 1/4	6	60 3/8	4 5/8	20 3/4	67 7/8	70	1 1/2 (T&F)	3/4	3/4		667	—
D-100S-250-3N(A)	100	250,000	606	242	173	76 3/4	28 1/4	6	60 3/8	4 5/8	20 3/4	67 7/8	70	1 1/2 (T&F)	3/4	1		667	702
D-100L-199-3N	100	199,999	485	194	139	74 11/16	30 1/4	6	56 1/2	4 1/2	23 1/2	64 3/4	67	1 1/2 (T&F)	3/4	3/4		725	—
D-100L-250-3N(A)	100	250,000	606	242	173	74 11/16	30 1/4	6	56 1/2	4 1/2	23 1/2	64 3/4	67	1 1/2 (T&F)	3/4	1		725	765
D-100L-270-3N(A)†	100	270,000	655	262	187	74 11/16	30 1/4	6	56 1/2	4 1/2	23 1/2	64 3/4	67	1 1/2 (T&F)	3/4	1		725	765
D-100L-300-3N(A)	100	300,000	727	291	208	74 3/8	30 1/4	7	56 1/2	4 1/2	23 1/2	64 3/4	67	1 1/2 (T&F)	3/4	1		725	765
D-80L-399-3N(A)	80	399,999	970	388	277	71 1/2	30 1/4	8	51 1/2	10 1/2	23 1/2	60 1/4	—	1 1/2 (F)	1N 3/4 (LP)	1		800	835
D-80L-450-3N(A)	80	450,000	1091	436	312	69	30 1/4	10	51 1/2	10 1/2	23 1/2	60 1/4	—	1 1/2 (F)	1N 3/4 (LP)	1		800	835
D-80L-505-3N(A)	80	505,000	1224	489	350	69	30 1/4	10	51 1/2	10 1/2	23 1/2	60 1/4	—	1 1/2 (F)	1N 3/4 (LP)	1		800	835

(A) = ASME Code Available

(F) = Front Water Connection

(T) = Top Water Connection

† = Available in Natural Gas Only

+ = Fiberglass Insulation

For (LP) Propane Gas models change suffix "N" to "X".

* Based on manufacturer's rated recovery efficiency.

** Recoveries are based on 80% Thermal Efficiency.

Low NOx models are not available for inputs over 399,999

For Low NOx compliance place an "E" following the BTU input identifier of the model number.

Example: D-75T-125E-3N

Amperage Draw = .5 for damper models/less than 4 for induced draft models.

Power Vent Kits – available for inputs from 125,000 to 505,000.

Optional Honeywell EnviraCOM™ Alarm Module — Provides indication (contacts are closed) when an alarm is present via normally open contacts (rated for up to 24 VAC).

Kit Number – 265-51961-00.

LP GAS MODELS	Input BTU/Hr.	GPH Rec.		
		40°	100°	140°
D-75T-160-3X	155,000	376	150	107
D-80T-250-3X	235,000	570	228	163
D-100T-250-3X	235,000	570	228	163
D-80L-399-3X	375,000	909	364	260
D-80L-450-3X	425,000	1030	412	294
D-80L-505-3X	475,000	1152	461	329

For above models please note recovery changes for LP.

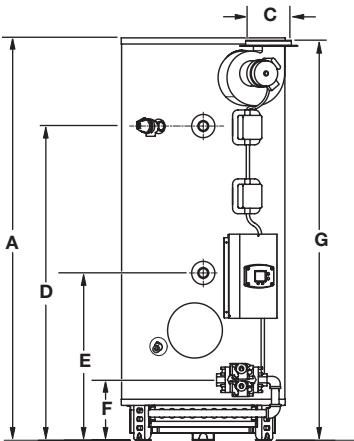
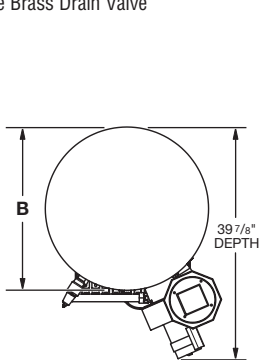
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Commercial Gas Induced Draft Models

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- ICON HD™—Intelligent proven design combines temperature control, diagnostic codes and system ignition functions into a single control board with a digital LCD display
 - Operation Mode
 - Service Mode
 - Electronic Ignition
 - Hydrojet® Total Performance System
 - Vitraglas® Lining
 - Automatic Re-Set E.C.O.
 - Non-CFC Foam Insulation
 - Water Connections—1½" NPT front true dielectric fittings
 - Protective Magnesium Anode Rods
 - Hand Hole Cleanout
 - Sanitizing Capability
 - NSF Construction Available
 - ASME Construction Available
- T&P Relief Valve
 - Low Restrictive Brass Drain Valve



D-65T-625-3NA

Induced Draft Models

DIMENSIONS IN INCHES

These models meet or exceed both Thermal Efficiency and Standby Loss Requirements of ASHRAE 90.1b (Current Edition). C.E.C. Listed 80% Thermal Efficiency

NATURAL GAS MODELS						A	B	C	D	E	F	G				
Model Number	Gal. Cap.	Nat. & LP Input BTU/Hr.	GPH Recovery at °F Rise*			Floor to Heater Top	Jacket Dia.	Vent Dia.	Floor to Hot Water Conn.	Floor to Cold Water Conn.	Floor to Gas Conn.	Floor to Vent Height	Gas Conn. Dia.	Relief Valve Open	Approx. Shipping Weight (lbs)	
			40°	100°	140°										Std.	ASME
D-65T-625-3N(A)	65	625,000	1515	606	433	69 ³ / ₈	28 ¹ / ₄	8	54 ¹ / ₈	28 ⁷ / ₈	10 ¹ / ₂	68 ⁷ / ₈	1†	1	720	775
D-80T-725-3N(A)	80	725,000	1757	703	502	79 ⁵ / ₈	28 ¹ / ₄	8	64 ¹ / ₄	28 ⁷ / ₈	10 ¹ / ₂	79 ¹ / ₈	1†	1	800	880

(A) = ASME Code Available
For Propane Gas models change suffix "N" to "X".
† LP Gas connection 3/4".
* Based on manufacturer's rated recovery efficiency.
** Recoveries are based on Thermal Efficiencies of 80%.



Commercial Gas Millivolt Models

34/35

- No Electricity Required
- ASME Code Available on All Models above 200,000 BTU/Hr.
- Continuous pilot-ignition
- Piezo Igniter—Easy and quick lighting by the pilot burner by push button
- E.C.O.—An automatic re-set Energy Cut Off (E.C.O.) shuts off all gas in the event of an overheat condition. This automatically resets when operation conditions are back to normal
- Millivolt Controls
- Automatic Flue Damper
- Vitraglas® Lining
- Hydrojet® Sediment Reduction System
- Dielectric Fittings
- Non-CFC Foam Insulation
- Hand Hole Cleanout (Standard)
- NSF Construction Available
- T&P Relief Valve
- Low Restrictive Brass Drain Valve
- 3 Year Limited Tank Warranty



DM-75T-125-3N

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Water Connections

Top and Front

DM80T180, 199, 250

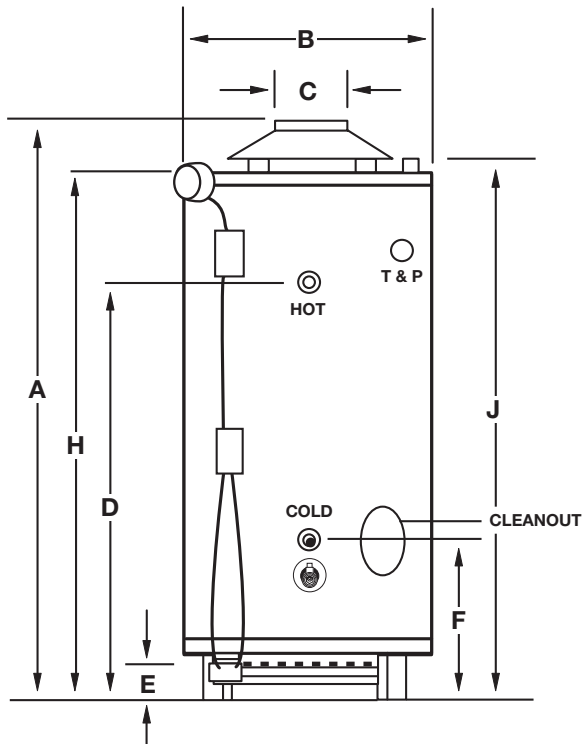
DM100T199, 250

DM75T125, 160

Top Front

DM100L199, 250, 270

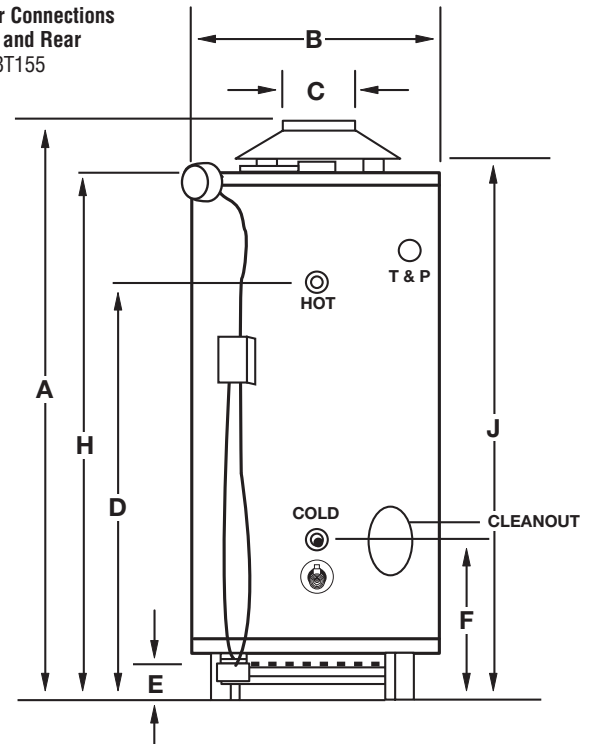
DM100S199, 250



Water Connections

Front and Rear

DM38T155



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Commercial Gas Millivolt Models

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Millivolt Models

DIMENSIONS IN INCHES

These models meet or exceed both Thermal Efficiency and
Standby Loss Requirements of ASHRAE 90.1b (Current Edition). C.E.C. Listed

NATURAL GAS MODELS						A	B	C	D	E	F	H	J					
Model Number	Gal. Cap.	Input BTU/Hr.	GPH Recovery at °F Rise*			Top Vent Height	Jacket Dia.	Vent Dia.	R/F Hot Water Conn.	Floor to Gas Conn.	R/F Cold Water Conn.	Floor to Top of Heater	Floor to Top Water Conn.	Water Conn.	Gas Conn. Dia.	Relief Valve Open.	Approx. Shipping Weight (lbs)	
			40°	100°	140°												Std.	ASME
DM-38T-155-3N	38	155,000	368	147	107	51	28 ¹ / ₄	6	34 ¹ / ₂	4 ⁵ / ₈	19 ³ / ₈	43	—	1 ¹ / ₂	3/4	3/4	438	—
DM-75T-125-3N	75	125,000	303	121	86	72 ¹ / ₄	28 ¹ / ₄	5	54 ¹ / ₂	4 ³ / ₄	34	65	67 ¹ / ₈	1 ¹ / ₂	3/4	3/4	520	—
DM-75T-160-3N	75	160,000	378	151	108	72 ¹ / ₄	28 ¹ / ₄	6	54 ¹ / ₂	4 ³ / ₄	34	65	67 ¹ / ₈	1 ¹ / ₂	3/4	3/4	520	—
DM-80T-180-3N	80	180,000	436	175	124	72 ³ / ₈	28 ¹ / ₄	6	56	4 ³ / ₄	19 ¹ / ₂	64 ¹ / ₂	66 ¹ / ₄	1 ¹ / ₂	3/4	3/4	540	—
DM-80T-199-3N	80	199,999	485	194	139	72 ³ / ₈	28 ¹ / ₄	6	56	4 ³ / ₄	19 ¹ / ₂	64 ¹ / ₂	66 ¹ / ₄	1 ¹ / ₂	3/4	3/4	540	—
DM-80T-250-3N(A)	80	250,000	606	242	173	72 ³ / ₈	28 ¹ / ₄	6	56	4 ³ / ₄	19 ¹ / ₂	64 ¹ / ₂	66 ¹ / ₄	1 ¹ / ₂	3/4	1	540	590
DM-100T-199-3N	98	199,999	485	194	139	85 ¹ / ₈	28 ¹ / ₄	6	67	4 ³ / ₄	19 ¹ / ₂	75 ¹ / ₂	77 ¹ / ₄	1 ¹ / ₂	3/4	3/4	610	—
DM-100T-250-3N(A)	98	250,000	606	242	173	85 ¹ / ₈	28 ¹ / ₄	6	67	4 ³ / ₄	19 ¹ / ₂	75 ¹ / ₂	77 ¹ / ₄	1 ¹ / ₂	3/4	1	610	690
DM-100L-199-3N	100	199,999	485	194	139	74 ¹ / ₁₆	30 ¹ / ₄	6	56 ¹ / ₂	4 ¹ / ₂	23 ¹ / ₂	65	67	1 ¹ / ₂ (T&F)	3/4	3/4	725	—
DM-100L-250-3N(A)	100	250,000	606	242	173	74 ¹ / ₁₆	30 ¹ / ₄	6	56 ¹ / ₂	4 ¹ / ₂	23 ¹ / ₂	65	67	1 ¹ / ₂ (T&F)	3/4	1	725	765
DM-100L-270-3N(A)†	100	270,000	655	262	187	74 ¹ / ₁₆	30 ¹ / ₄	6	56 ¹ / ₂	4 ¹ / ₂	23 ¹ / ₂	65	67	1 ¹ / ₂ (T&F)	3/4	1	725	765
DM-100S-199-3N	100	199,999	485	194	139	76 ³ / ₄	30 ¹ / ₄	6	60 ¹ / ₂	4 ¹ / ₂	20 ³ / ₄	72 ⁷ / ₈	75	1 ¹ / ₂ (T&F)	3/4	3/4	667	—
DM-100S-250-3N(A)	100	250,000	606	242	173	76 ³ / ₄	30 ¹ / ₄	6	60 ¹ / ₂	4 ¹ / ₂	20 ³ / ₄	72 ⁷ / ₈	75	1 ¹ / ₂ (T&F)	3/4	1	667	702

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(A) = ASME Code Available
(F) = Front Water Connection
(T) = Top Water Connection
† = Available in Natural Gas Only
For Propane Gas models change suffix "N" to "X".

For LowNOx compliance, place an "E" following the BTU Input identifier of the model number. Example: DM-75T-125E-3N

* Based on manufacturer's rated recovery efficiency.

** Recoveries are based on Thermal Efficiencies of 80%.

LP GAS MODELS	Input BTU/Hr.	GPH Rec.		
		40°	100°	140°
DM-75T-160-3X	155,000	376	150	107
DM-80T-199-3X	190,000	461	184	132
DM-80T-250-3X	235,000	570	228	163
DM-100T-250-3X	235,000	570	228	163

For above models please note recovery changes for LP.

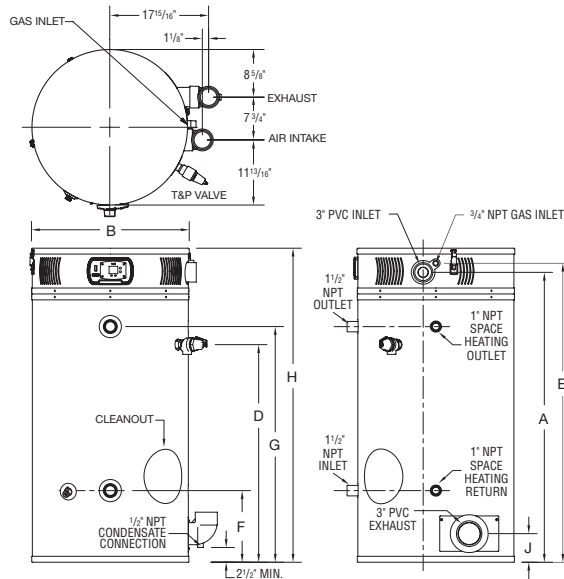
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Commercial Gas Ultra High Efficiency Models

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- ICON HD™—Intelligent proven design combines temperature control, diagnostic codes and system ignition functions into a single control board with a digital LCD display
- ENERGY STAR® Models Available—EF60T125 & EF100T (150,199,250,399) Models
- ASME Construction Available
- Electronic Controls
- Low-NOx Premix Power Burner
- Three Pass Flue System
- Flexible Venting Options
- Vitraglas® Lining
- Hydrojet® Sediment Reduction System
- Dielectric Fittings
- Non-CFC Foam Insulation
- Four Protective Magnesium Anode Rods (Except EF-100T-399)
- Two Powered Anode Rods and One Non-Powered Anode Rod in the EF-100T-399
- Hand Hole Cleanout
- Zero Inch Clearance to Combustibles
- NSF Construction Available
- T&P Relief Valve
- Low Restrictive Brass Drain Valve
- Complies with the Latest Ultra-Low NOx Requirement (14 ng/J NOx Limit)



EF-60T-199E-3N

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Ultra High Efficiency Models

DIMENSIONS IN INCHES

These models meet or exceed both Thermal Efficiency and Standby Loss Requirements of ASHRAE 90.1b (Current Edition). C.E.C. Listed

NATURAL GAS AND LIQUID PROPANE GAS MODELS						A	B	C	D	E	F	G	H	J					
Model Number	Gal. Cap.	Input BTU/Hr.	GPH Recovery at °F Rise			Therm. Eff. %	Floor to Air Intake	Jacket Dia.	Vent & Air Intake Size	Floor to T&P Valve Conn.	Floor to Gas Conn.	Cold Water Inlet Conn.	Hot Water Outlet Conn.	Floor to Top of Heater	Floor to Vent Conn.	Water Conn.	Gas Conn. Dia.	Relief Valve Open	Approx. Shipping Weight (lbs)
			40°	100°	140°														
EF-60T-125E-3N(A)	60	125,000	364	145	104	96.0	52½	28¼	3	40	53½	12⅞	42½	57	5	1½	¾	¾	570
EF-60T-150E-3N(A)	60	150,000	423	169	121	93.0	52½	28¼	3	40	53½	12⅞	42½	57	5	1½	¾	¾	570
EF-60T-199E-3N(A)	60	199,999	558	223	159	92.0	52½	28¼	3	40	53½	12⅞	42½	57	5	1½	¾	¾	570
EF-100T-150E-3N(A)	100	150,000	450	180	129	99.1	73⅛	28¼	3	60	74¾	12⅞	62½	77⅝	5	1½	¾	¾	900
EF-100T-199E-3N(A)	100	199,999	597	239	171	98.5	73⅛	28¼	3	60	74¾	12⅞	62½	77⅝	5	1½	¾	¾	900
EF-100T-250E-3N(A)	100	250,000	735	294	210	97.0	73⅛	28¼	3	60	74¾	12⅞	62½	77⅝	5	1½	¾	1	900
EF-100T-300E-3N(A)	100	300,000	836	335	239	92.0	73⅛	28¼	3	60	74¾	12⅞	62½	77⅝	5	1½	¾	1	900
EF-100T-399E-3N(A)	100	399,999	1127	451	322	94.0	73⅛	28¼	3	60	74¼	13	63	77⅝	5	1½	1	1	950

(A) = ASME Code Available

For Propane Gas models change suffix "N" to "X" and remove "E" from model number Example: EF-100T-150-3X.

Note: The weight is the same for both ASME and Non-ASME models.

NSF Compliance Kit—p/n 265-44542-04.

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Commercial Gas Ultra High Efficiency Models

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	EF-60T-125 EF-100T-150		EF-60T-150 EF-100T-150		EF-60T-199 EF-100T-199	
2" Vent Pipe	Power Direct Vent	Power Vent	Power Direct Vent	Power Vent	Power Direct Vent	Power Vent
Max. Intake Length	15 ft.	N/A	15 ft.	N/A	15 ft.	N/A
Max. Exhaust Length	15 ft.	30 ft.	15 ft.	30 ft.	15 ft.	30 ft.

	EF-60T-125 EF-100T-150		EF-60T-150 EF-100T-199		EF-60T-199 EF-100T-250		EF-100T-300		EF-100T-399	
3" Vent Pipe	Power Direct Vent	Power Vent	Power Direct Vent	Power Vent	Power Direct Vent	Power Vent	Power Direct Vent	Power Vent	Power Direct Vent	Power Vent
Max. Intake Length	60 ft.	N/A	50 ft.	N/A	40 ft.	N/A	30 ft.	N/A	25 ft.	N/A
Max. Exhaust Length	60 ft.	120 ft.	50 ft.	100 ft.	40 ft.	80 ft.	30 ft.	60 ft.	25 ft.	50 ft.

	EF-60T-125 EF-100T-150		EF-60T-150 EF-100T-199		EF-60T-199 EF-100T-250		EF-100T-300		EF-100T-399	
4" Vent Pipe	Power Direct Vent	Power Vent	Power Direct Vent	Power Vent	Power Direct Vent	Power Vent	Power Direct Vent	Power Vent	Power Direct Vent	Power Vent
Max. Intake Length	85 ft.	N/A	75 ft.	N/A	65 ft.	N/A	55 ft.	N/A	50 ft.	N/A
Max. Exhaust Length	85 ft.	170 ft.	75 ft.	150 ft.	65 ft.	130 ft.	55 ft.	110 ft.	50 ft.	100 ft.

	EF-100T-399	
6" Vent Pipe	Power Direct Vent	Power Vent
Max. Intake Length	120 ft.	N/A
Max. Exhaust Length	120 ft.	240 ft.

Air intake cannot exceed exhaust by more than 30 ft. in any venting situation. Subtract 5 ft. for each additional 90° elbow.

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eF Series® Optional Equipment Features:

Maxitrol Gas Pressure Regulating Valve—Ensures proper supply pressure to eF unit of 7" to 11" W.C.(provided incoming pressure is between 1/2 and 2 psi). This can be ordered as a separate part, or as part of the heater. For the separate part, please use p/n 243-45517-00 (not available for use with the EF-100T-399).

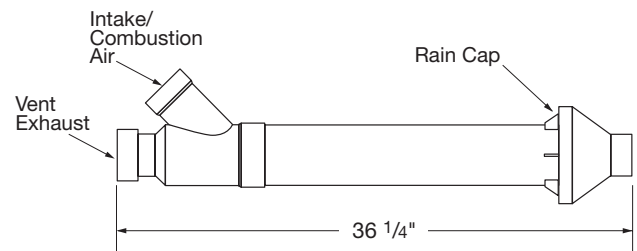
NSF Compliance Option—p/n 265-44542-04

Low Gas Inlet Pressure Option—Pre-assembled to allow operation at lower inlet natural gas pressure.

Optional Honeywell EnviraCOM™ Alarm Module — Provides indication (contacts are closed) when an alarm is present via normally open contacts (rated for up to 24 VAC).

Kit Number – 265-51961-00.

Concentric Vent Terminal Kit—3" termination fitting provides for only one exit opening through wall or roof (p/n 239-44069-01).



p/n 239-44069-01
p/n 239-44069-02 (for 2" vent pipe only)

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Commercial Electric Water Heaters

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General Information

Specify voltage and wattage when ordering.

All models are ETL listed. All water connections are 3/4" NPT (LE2120T has 1" NPT). All electrical connections are 3/4". All models are certified at 300 psi test pressure and 150 psi working pressure. All models come equipped with two installed heat traps (except LE2120T, LE120L, Utility and Wall Hung models). All models include an installed T&P Relief Valve.

Note: All **Upright** and **Lowboys** will be wired 240 Volt with two 4500 watt elements, 3 phase non-simultaneous operation (except 277 volt; 277 volt is only available in single phase operation). Other wattages and voltages are available. These models are field convertible to single phase and simultaneous operation. All models have a maximum total wattage of 3000 watts at 120 Volt. INCOLOY® elements available for most inputs.

Note: All **Wall Hung** and **Utility Models** will be wired 120 Volt with a 1500 watt element as single phase operation. 3 phase wiring not available on Wall Hung or Utility models (Single Element Units). Other wattages and voltages are available. Maximum wattage for 6 and 12 gallon tall utility models is 3000W. Maximum wattage for 10, 12 and 15 gallon utility models is 6000W. Maximum wattage for the 6 gallon wall hung model is 3000W. Maximum wattage for 12, 20 and 30 gallon wall hung models is 6000W. All models have a maximum wattage of 3000 watts at 120 Volt. INCOLOY® elements available for most inputs.

Incoloy Element Availability Chart						
Watts	120V	208V	240V	277V	480V	
1500	yes	yes	yes	no	no	
2000	no	yes	yes	yes	yes	
2500	no	yes	yes	no	no	
3000	no	yes	yes	yes	yes	
3500	no	yes	yes	no	no	
4000	no	yes	yes	yes	yes	
4500	no	yes	yes	yes	yes	
5000	no	yes	yes	yes	yes	
5500	no	yes	yes	yes	yes	
6000	no	yes	yes	yes	yes	

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NOTE: WHEN ORDERING WATER HEATERS SPECIFY VOLTAGE AND KW INPUT ONLY. THE FOLLOWING TABLES ARE FOR INFORMATIONAL PURPOSES ONLY.

Phase and Operation are determined by the voltage.

All 208V, 240V and 480V models are shipped standard three phase, non-simultaneous.

Can be converted to single phase and/or simultaneous operation in the field.

All 120V and 277V models are shipped standard single phase, non-simultaneous.

Can be converted to simultaneous operation in the field. Three phase not available.

Phase	1	Single Phase	Operation	N	Non-Simultaneous
	3	Three Phase		S	Simultaneous

EX: LE250S3-3NCWW

EX: LE250S3-3NCWW

Designator	A	C	E	H	J	L*
Voltage	120	208/240	277	480	600	208

EX: LE250S3-3NCWW

* Use "L" voltage designator if wiring 208V with 5000 watt.

For 120V, 277V, 480V, and 600V operation

Designator	J	K	L	M	N	P	R	S	T	W	X	Y	Z
Wattage	1000	1250	1500	2000	2500	3000	3500	3800	4000	4500	5000	5500	6000

EX: LE250S3-3NCWW

For 240V and 208V operation (Dual rated elements show a value for both 240V and 208V)

Designator	J	K	L	M	N	P	R	S	T	W	X	Y	Z	X**	Y**	Z**
240V Wattage	1000	1250	1500	2000	2500	3000	3500	3800	4000	4500	5000	5500	—	—	—	—
208V Wattage	—	—	1000	1500	2000	—	2500	—	3000	3500	—	4000	4500	5000	—	—

EX: LE250S3-3ge designator if wiring 208V with 5000, 5500 or 6000 watt.

† Available in non-simuNCWW, will give 240V with 4500W/4500W. This same heater can also be energized at 208V with reduced wattage of 3500W/3500W.

** Use "L" voltaltaneous only.

	Wattage Limitations for Non-Simultaneous and Simultaneous Operation				
	Voltage				
	120V	208V	240V	277V	480V
1500W / 1500W	yes	yes	yes	yes	yes
2000W / 2000W	no	yes	yes	yes	yes
2500W / 2500W	no	yes	yes	yes	yes
3000W / 3000W	no	yes	yes	yes	yes
3500W / 3500W	no	yes	yes	no	no
4000W / 4000W	no	yes	yes	yes	yes
4500W / 4500W	no	yes	yes	yes	yes
5000W / 5000W	no	yes	yes	yes	yes
5500W / 5500W	no	no	yes	no	yes
6000W / 6000W	no	no	no	yes	yes

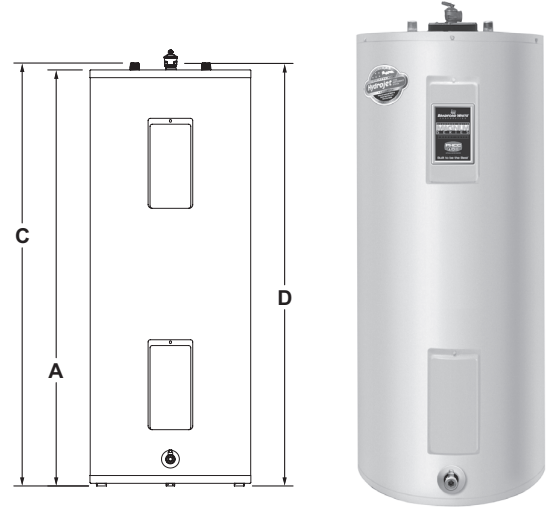
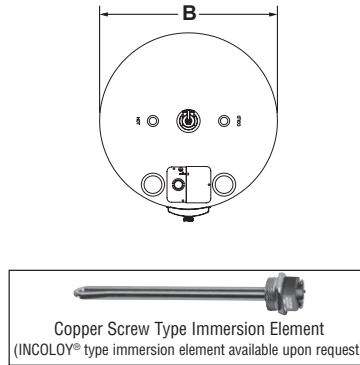
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Commercial Electric ElectriFLEX LD™ (Light Duty) Upright Models

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- Fully Automatic Controls
- Direct Heat Transfer with Immersed Elements
- Hydrojet® Total Performance System
- Vitraglas® Lining
- 2" Non-CFC Foam Insulation
- Water Connections—3/4" NPT
- Heat Traps
- Protective Magnesium Anode Rod
- Steel Tank
- Field Convertible
- Voltages Available—120V, 208V, 240V, 277V, 480V.
- T&P Relief Valve
- Low Restrictive Brass Drain Valve



LE250S3-3

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ElectriFLEX LD™ (Light Duty) Upright Models

DIMENSIONS IN INCHES

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed

ELECTRIC MODELS		Recovery 100°F Rise*		A	B	C	D	
Model Number	Gal. Cap.	Nat U.S. GPH	Nat Imp. GPH	Floor to Heater Top	Jacket Dia.	Floor to Water Conn.	Floor to T&P Conn.	Approx. Shipping Weight (lbs)
LE230S3-3	30	18	15	46 ⁷ / ₈	18	48 ¹ / ₈	47 ³ / ₁₆	85
LE240S3-3	40	18	15	46 ⁷ / ₈	20	47 ⁷ / ₈	46 ⁷ / ₈	103
LE250S3-3	50	18	15	46 ¹ / ₂	22	47 ¹ / ₂	46 ¹ / ₂	130
LE265T3-3	65	18	15	59 ¹ / ₄	22	60 ¹ / ₄	59 ¹ / ₄	156
LE280T3-3	80	18	15	59 ¹ / ₄	24	60 ¹ / ₄	59 ¹ / ₄	183
LE2120T3-3	119	18	15	62 ³ / ₄	28	64 ¹ / ₄	62 ¹ / ₄	305

Specify wattage and voltage when ordering. Use chart for maximum wattages at certain voltages For 5 year models, change suffix "3" to "5".

*Based on 4500W/4500W, Non-Simultaneous operation. NSF Kits available when ordering.

Voltage and Wattage Conversion Kits

Simultaneous and Non-Simultaneous Wattage	Voltage					
	120V	208V	240V	277V	380V	480V
1500W / 1500W	265-46409-01	265-46409-05	265-46409-13	265-46409-16	265-46409-24	265-46409-32
2000W / 2000W	N/A	265-46409-06	265-46409-05	265-46409-17	265-46409-43	265-46409-33
2500W / 2500W	N/A	265-46409-07	265-46409-06	265-46409-18	265-46409-25	265-46409-34
3000W / 3000W	N/A	265-46409-08	265-46409-14	265-46409-19	265-46409-26	265-46409-35
3500W / 3500W	N/A	265-46409-09	265-46409-07	N/A	265-46409-27	N/A
4000W / 4000W	N/A	265-46409-10	265-46409-08	265-46409-20	265-46409-29	265-46409-36
4500W / 4500W	N/A	265-46409-11	265-46409-09	265-46409-21	265-46409-30	265-46409-37
5000W / 5000W	N/A	265-46409-12	265-46409-15	265-46409-22	265-46409-31	265-46409-38
5500W / 5500W	N/A	N/A	265-46409-10	265-46409-40**	265-46409-44	265-46409-42**
6000W / 6000W	N/A	N/A	N/A	265-46409-23	265-46409-45	265-46409-39

Wattage	Voltage				
	120V	208V	240V	277V	480V
1500W / 1500W	yes	yes	yes	yes	yes
2000W / 2000W	no	yes	yes	yes	yes
2500W / 2500W	no	yes	yes	yes	yes
3000W / 3000W	no	yes	yes	yes	yes
3500W / 3500W	no	yes	yes	no	no
4000W / 4000W	no	yes	yes	yes	yes
4500W / 4500W	no	yes	yes	yes	yes
5000W / 5000W	no	no	yes	yes	yes
5500W / 5500W	no	no	yes	no	no
6000W / 6000W	no	no	no	yes	yes

Wattage	Recovery▲ GPH Temperature Rise °F				
	60	80	90	100	120
1500W	10	8	7	6	5
2000W	14	10	9	8	7
2500W	17	13	11	10	9
3000W	21	15	14	12	10
3500W	24	18	16	14	12
4000W	28	21	18	16	14
4500W	31	23	21	19	15
5000W	34	26	23	21	17
5500W	38	29	25	23	19
6000W	41	31	28	25	21

▲ (GPH based on Non-Simultaneous operation, when Simultaneous operation the GPH will approximately double.)

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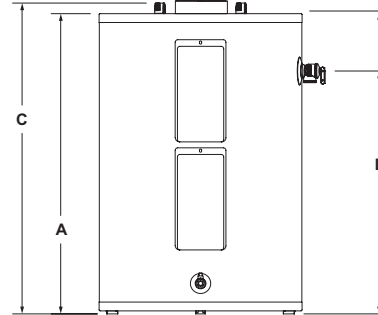
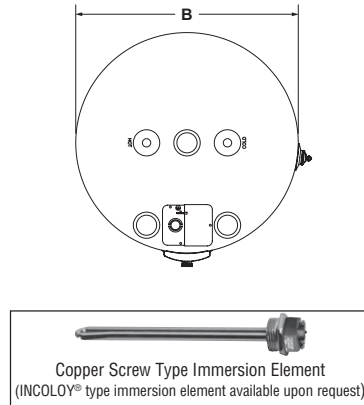


Commercial Electric

ElectriFLEX LD™ (Light Duty) Lowboy Models

46/47

- Fully Automatic Controls
- Direct Heat Transfer with Immersed Elements
- Hydrojet® Total Performance System
- Vitraglas® Lining
- 1" Non-CFC Foam Insulation
- Water Connections—3/4" NPT
- Heat Traps
- Protective Magnesium Anode Rod
- Steel Tank
- Field Convertible
- Voltages Available—120V, 208V, 240V, 277V, 480V
- T&P Relief Valve
- Low Restrictive Brass Drain Valve



LE120L3-3

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ElectriFLEX LD™ (Light Duty) Lowboy Models

DIMENSIONS IN INCHES

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed

ELECTRIC MODELS		Recovery 100°F Rise*		A	B	C	D	
Model Number	Gal. Cap.	Nat U.S. GPH	Nat Imp. GPH	Floor to Heater Top	Jacket Dia.	Floor to Water Conn.	Floor to T&P Conn.††	Approx. Shipping Weight (lbs)
LE120L3-3†	19	18	15	24 ³ / ₄	18	26	19 ¹ / ₄ / 24 ⁷ / ₈	58
LE130L3-3**	30	18	15	29 ³ / ₄	20	31	24 / 29 ³ / ₈	86
LE140L3-3**	40	18	15	31 ¹ / ₄	22	32 ⁷ / ₈	24 ¹ / ₈ / 31 ³ / ₄	115
LE150L3-3**	47	18	15	31 ³ / ₄	24	33 ¹ / ₈	24 ¹ / ₈ / 31 ³ / ₄	140

Specify wattage and voltage when ordering. Use the chart below for maximum wattages at certain voltages. All Models include supplied insulation blanket. For 5 year models, change suffix "3" to "5".

* Based on 4500W/4500W, Non-Simultaneous operation.

** Models include supplied insulation blanket (2" thick). Dimensions in charts above do not include blanket thickness NSF Kits available when ordering.

† Exempt from ASHRAE 90.1b.

†† All models feature side T&P location and must specify top T&P when ordering. "D" dimension listed as side/top.

Voltage and Wattage Conversion Kits

Simultaneous and Non-Simultaneous Wattage	Voltage					
	120V	208V	240V	277V	380V	480V
1500W / 1500W	265-46409-01	265-46409-05	265-46409-13	265-46409-16	265-46409-24	265-46409-32
2000W / 2000W	N/A	265-46409-06	265-46409-05	265-46409-17	265-46409-43	265-46409-33
2500W / 2500W	N/A	265-46409-07	265-46409-06	265-46409-18	265-46409-25	265-46409-34
3000W / 3000W	N/A	265-46409-08	265-46409-14	265-46409-19	265-46409-26	265-46409-35
3500W / 3500W	N/A	265-46409-09	265-46409-07	N/A	265-46409-27	N/A
4000W / 4000W	N/A	265-46409-10	265-46409-08	265-46409-20	265-46409-29	265-46409-36
4500W / 4500W	N/A	265-46409-11	265-46409-09	265-46409-21	265-46409-30	265-46409-37
5000W / 5000W	N/A	265-46409-12	265-46409-15	265-46409-22	265-46409-31	265-46409-38
5500W / 5500W	N/A	N/A	265-46409-10	265-46409-40**	265-46409-44	265-46409-42**
6000W / 6000W	N/A	N/A	N/A	265-46409-23	265-46409-45	265-46409-39

	Wattage Limitations for Non-Simultaneous and Simultaneous Operation				
	Voltage				
	120V	208V	240V	277V	480V
1500W / 1500W	yes	yes	yes	yes	yes
2000W / 2000W	no	yes	yes	yes	yes
2500W / 2500W	no	yes	yes	yes	yes
3000W / 3000W	no	yes	yes	yes	yes
3500W / 3500W	no	yes	yes	no	no
4000W / 4000W	no	yes	yes	yes	yes
4500W / 4500W	no	yes	yes	yes	yes
5000W / 5000W	no	yes	yes	yes	yes
5500W / 5500W	no	no	yes	no	no
6000W / 6000W	no	no	no	yes	yes

Wattage	Recovery▲ GPH Temperature Rise °F				
	60	80	90	100	120
1500W	10	8	7	6	5
2000W	14	10	9	8	7
2500W	17	13	11	10	9
3000W	21	15	14	12	10
3500W	24	18	16	14	12
4000W	28	21	18	16	14
4500W	31	23	21	19	15
5000W	34	26	23	21	17
5500W	38	29	25	23	19
6000W	41	31	28	25	21

▲ (GPH based on Non-Simultaneous operation, when Simultaneous operation the GPH will approximately double.)

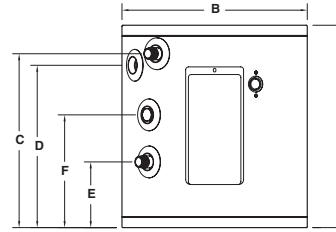
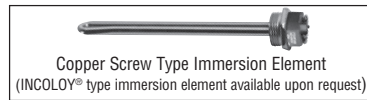
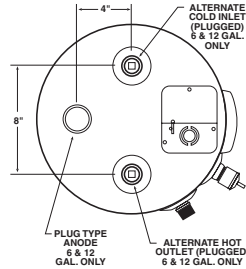
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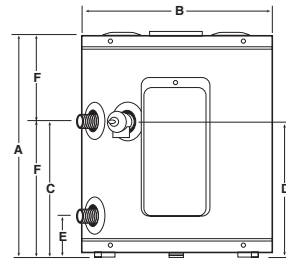
Commercial Electric ElectriFLEX LD™ (Light Duty) Utility Models

48/49

- Fully Automatic Controls
- Direct Heat Transfer with a Single Immersed Element
- Vitraglass® Lining
- 1" Non-CFC Foam Insulation
- Water Connections—3/4" NPT
- Alternate Top Water Connections
- Protective Magnesium Anode Rod
- Steel Tank
- Voltages Available—120V, 208V, 240V, 277V, 480V
- Single Phase Operation Only
- T&P Relief Valve



10 & 15 Gallon Models



6, 12, & 20 Gallon Models



LE112T3-1

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ElectriFLEX LD™ (Light Duty) Utility Models

DIMENSIONS IN INCHES

C.E.C. Listed

ELECTRIC MODELS		Recovery 100°F Rise*		A	B	C	D	E	F	
Model Number	Gal. Cap.	Nat U.S. GPH	Nat Imp. GPH	Floor to Heater Top	Jacket Dia.	Floor to Hot Water Conn.	Floor to T&P Conn.	Floor to Cold Water Conn.	Floor to Anode Rod	Approx. Shipping Weight (lbs)
LE16U3-1†	6	6	5	16½	14	10⅞	10⅞	3⅞	16½	33
LE110U3-1	10	6	5	17½	16	15	14	5⅞	9⅞	48
LE112T3-1†	12	6	5	27¾	14	21⅞	21⅞	3	27¾	48
LE115U3-1	15	6	5	20¼	18	17¾	16¾	6⅞	10⅞	55
LE120U3-1	19	6	5	24¾	18	18¼	18¼	3	10¼	59

Specify wattage and voltage when ordering.

Use chart below for maximum wattages at certain voltages.

† Maximum wattage at any voltage is 3000W.

For 5 year models, change suffix "3" to "5".

Single element only.

* Based on 1500W operation.

NSF Kits available when ordering.

Voltage and Wattage Conversion Kits

Single Element Wattage	Voltage					
	120V	208V	240V	277V	380V	480V
1500W	265-46409-01	265-46409-05	265-46409-13	265-46409-16	265-46409-24	265-46409-32
2000W	265-46409-02*	265-46409-06	265-46409-05	265-46409-17	265-46409-43	265-46409-33
2500W	265-46409-03*	265-46409-07	265-46409-06	265-46409-18	265-46409-25	265-46409-34
3000W	265-46409-04*	265-46409-08	265-46409-14	265-46409-19	265-46409-26	265-46409-35
3500W	N/A	265-46409-09	265-46409-07	N/A	265-46409-27	N/A
4000W	N/A	265-46409-10	265-46409-08	265-46409-20	265-46409-29	265-46409-36
4500W	N/A	265-46409-11	265-46409-09	265-46409-21	265-46409-30	265-46409-37
5000W	N/A	265-46409-12	265-46409-15	265-46409-22	265-46409-31	265-46409-38
5500W	N/A	265-46409-46*	265-46409-10	265-46409-40**	265-46409-44	265-46409-42**
6000W	N/A	265-46409-47*	265-46409-48*	265-46409-23	265-46409-45	265-46409-39

Wattage Limitations	Voltage				
	120V	208V	240V	277V	480V
1500W / 1500W	yes	yes	yes	yes	yes
2000W / 2000W	yes	yes	yes	yes	yes
2500W / 2500W	yes	yes	yes	yes	yes
3000W / 3000W	yes	yes	yes	yes	yes
3500W / 3500W	no	yes	yes	no	no
4000W / 4000W	no	yes	yes	yes	yes
4500W / 4500W	no	yes	yes	yes	yes
5000W / 5000W	no	yes	yes	yes	yes
5500W / 5500W	no	yes	yes	no	no
6000W / 6000W	no	yes	yes	yes	yes

Wattage	Recovery GPH Temperature Rise °F				
	60	80	90	100	120
1500W	10	8	7	6	5
2000W	14	10	9	8	7
2500W	17	13	11	10	9
3000W	21	15	14	12	10
3500W	24	18	16	14	12
4000W	28	21	18	16	14
4500W	31	23	21	19	15
5000W	34	26	23	21	17
5500W	38	29	25	23	19
6000W	41	31	28	25	21

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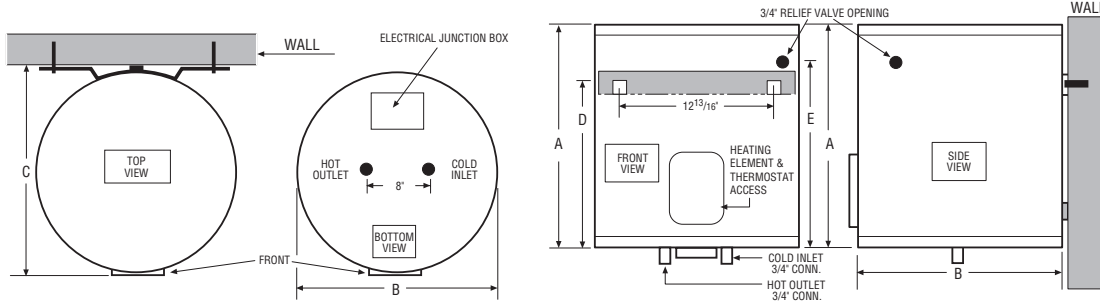
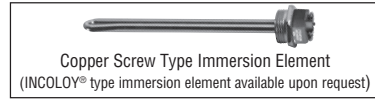


Commercial Electric

ElectriFLEX LD™ (Light Duty) Wall Hung Models

50/51

- Fully Automatic Controls
- Direct Heat Transfer with a Single Immersed Element
- Vitraglas® Lining
- 1" Non-CFC Foam Insulation
- Heavy-Duty Wall Mounting Bracket
- Water Connections—3/4" NPT
- Protective Magnesium Anode Rod
- Steel Tank
- Voltages Available—120V, 208V, 240V, 277V, 480V
- Single Phase Operation Only
- T&P Relief Valve
- Field Conversion Kits—change voltage, and kW in the field



LE16WV3-1

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ElectriFLEX LD™ (Light Duty) Wall Hung Models

DIMENSIONS IN INCHES

C.E.C. Listed

ELECTRIC MODELS		Recovery 100°F Rise*		A	B	C	D	E	Approx. Shipping Weight (lbs)
Model Number	Gal. Cap.	Nat U.S. GPH	Nat Imp. GPH	Height	Jacket Dia.	Wall to Front	Height to Bracket	Height to T&P Conn.	
LE16WV3-1†	6	6	5	15 ³ / ₄	14	14 ⁵ / ₈	11 ³ / ₄	11 ⁷ / ₈	33
LE112WV3-1	12	6	5	16 ³ / ₈	18	18 ⁵ / ₈	12 ³ / ₄	12 ¹ / ₂	48
LE120WV3-1	19	6	5	24 ³ / ₈	18	18 ⁵ / ₈	18 ¹ / ₄	21	59

Specify wattage and voltage when ordering. Use chart below for maximum wattages at certain voltages.

† Maximum wattage at any voltage is 3000W.

For 5 year models, change suffix "3" to "5".

Single element only.

* Based on 1500W operation.

NSF Kits available when ordering.

Voltage and Wattage Conversion Kits

Single Element Wattage	Voltage					
	120V	208V	240V	277V	380V	480V
1500W	265-46409-01	265-46409-05	265-46409-13	265-46409-16	265-46409-24	265-46409-32
2000W	265-46409-02*	265-46409-06	265-46409-05	265-46409-17	265-46409-43	265-46409-33
2500W	265-46409-03*	265-46409-07	265-46409-06	265-46409-18	265-46409-25	265-46409-34
3000W	265-46409-04*	265-46409-08	265-46409-14	265-46409-19	265-46409-26	265-46409-35
3500W	N/A	265-46409-09	265-46409-07	N/A	265-46409-27	N/A
4000W	N/A	265-46409-10	265-46409-08	265-46409-20	265-46409-29	265-46409-36
4500W	N/A	265-46409-11	265-46409-09	265-46409-21	265-46409-30	265-46409-37
5000W	N/A	265-46409-12	265-46409-15	265-46409-22	265-46409-31	265-46409-38
5500W	N/A	265-46409-46*	265-46409-10	265-46409-40**	265-46409-44	265-46409-42**
6000W	N/A	265-46409-47*	265-46409-48*	265-46409-23	265-46409-45	265-46409-39

Wattage Limitations	Voltage				
	120V	208V	240V	277V	480V
1500W / 1500W	yes	yes	yes	yes	yes
2000W / 2000W	yes	yes	yes	yes	yes
2500W / 2500W	yes	yes	yes	yes	yes
3000W / 3000W	yes	yes	yes	yes	yes
3500W / 3500W	no	yes	yes	no	no
4000W / 4000W	no	yes	yes	yes	yes
4500W / 4500W	no	yes	yes	yes	yes
5000W / 5000W	no	yes	yes	yes	yes
5500W / 5500W	no	yes	yes	no	no
6000W / 6000W	no	yes	yes	yes	yes

Wattage	Recovery GPH Temperature Rise °F				
	60	80	90	100	120
1500W	10	8	7	6	5
2000W	14	10	9	8	7
2500W	17	13	11	10	9
3000W	21	15	14	12	10
3500W	24	18	16	14	12
4000W	28	21	18	16	14
4500W	31	23	21	19	15
5000W	34	26	23	21	17
5500W	38	29	25	23	19
6000W	41	31	28	25	21

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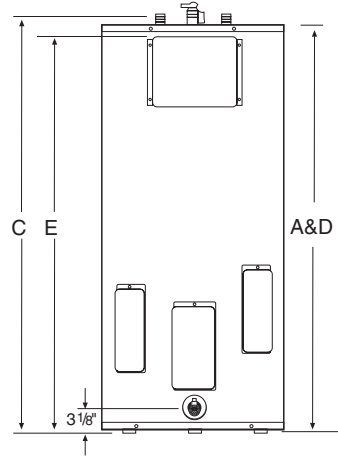
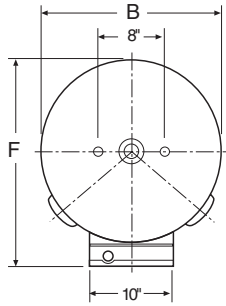
Commercial Electric ElectriFLEX MD™ (Medium Duty) Models

52/53

- Vitraglas® Lining
- Hydrojet® Total Performance System
- Water Connections—1¼" NPT dielectric waterway fittings
- 2" Non-CFC Foam Insulation
- Fully Automatic Controls (180°F maximum)
- Direct Heat Transfer With Three Immersed INCOLOY® Elements—Transfers heat directly and efficiently to the water. Screw-in style element
- Protective Magnesium Anode Rod
- T&P Relief Valve
- Low Restrictive Brass Drain Valve

Optional

Field Conversion Kits; see next page for part numbers
NSF Construction Kits; see next page for part numbers



E32-80R-3

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ElectriFLEX MD™ (Medium Duty) Models

DIMENSIONS IN INCHES

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed

ELECTRIC MODELS		A	B	C	D	E	F	
Model Number	Gallon Capacity	Floor to Heater Top	Jacket Dia.	Floor to Water Conn.	Floor to T&P Conn.	Floor to Control Box	Control Box to Back of Heater	Approx. Shipping Weight (lbs)
E32-50S-3	50	46½	22	47½	47½	44⅞	24⅝	137
E32-80R-3	80	59	24	60	60⅞	57¾	26¾	190
E32-120R-3	119	63	28¼	64	64⅞	61¾	30⅞	312

All Medium Duty heaters are wired 240V/3 phase 18 kW. Other voltages, wiring phase and kW are available and must be specified when ordering. NOTE: Refer to pages 42/43 for technical information and pages 60/61 for GPH recovery information.

Conversion Kit Table

Required Total Heater Wattage	Element Wattage	Kit Part Numbers		
		208V	240V	480V
6000	2000	265-43942-13	265-43942-07	265-43942-01
9000	3000	265-43942-14	265-43942-08	265-43942-02
12000	4000	265-43942-15	265-43942-09	265-43942-03
13500	4500	265-43942-16	265-43942-10	265-43942-04
15000	5000	265-43942-17	265-43942-11	265-43942-05
18000	6000	265-43942-18*	265-43942-12	265-43942-06

1,000 watts = 1kW.

* 265-43942-18 will require control box replacement (included in kit).
Other wattages, wiring phase and kW are available and must be specified when ordering. 277 volt cannot be ordered as 3 phase operation.

Full Load Amperes - (Single Phase / Three Phase) and Recovery at a 100°F Rise

Input kW	208V	240V	277V	380V	415V	480V	Recovery
6	28.8/16.7	25.0/14.4	21.7	9.1	8.3	12.5/7.2	25 GPH
9	43.2/25.0	37.5/21.7	32.5	13.7	12.5	18.8/10.8	37 GPH
12	57.7/33.3	50.0/28.9	43.3	18.2	16.7	25.0/14.4	50 GPH
13.5	64.9/37.5	56.3/32.5	48.7	20.5	18.8	28.1/16.2	56 GPH
15	72.1/41.6	62.5/36.1	54.2	22.8	20.9	31.3/18.0	62 GPH
18	86.5/50.0	75.0/43.3	65.0	27.3	25.0	37.5/21.7	74 GPH

NSF Construction Kit

Model Number	Kit Part Numbers
E32-50S	265-45446-01
E32-80R	265-45446-02
E32-120R	265-45446-03

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Commercial Electric

ElectriFLEX HD™ (Heavy Duty) Models

54/55

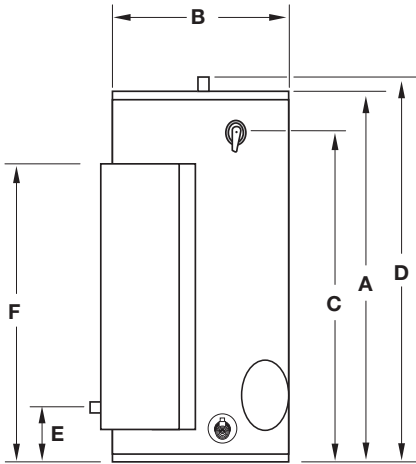
Immersion Thermostat with Contactors

- Immersion Type Thermostat for Accurate Temperature Control from Positive off up to 180°F

All Models Feature

- Conversion Kits—Design certified by ETL for field conversion. Conversion kits are available to convert any one model to a variety of voltages, kW inputs and phase
- Vitraglas® Lined Tank
- Hydrojet® Sediment Reduction System
- Completely Pre-wired with Pressure Lug Terminal Eliminating the Need for Splicing or Taping Wires
- Water Connections—1½" NPT true dielectric fittings

- Elements—Screw in style low watt density INCOLOY® sheathed elements standard. These elements resist burnout caused by dry fire or lime buildup
 - 3" Non-CFC Foam Insulation
 - Two Protective Magnesium Anode Rods
 - Hand-hole Cleanout Opening
 - Internal Fusing—Standard on all models
 - Low Restrictive Brass Drain Valve
 - T&P Relief Valve
- Options
- ASME & NSF Construction Available



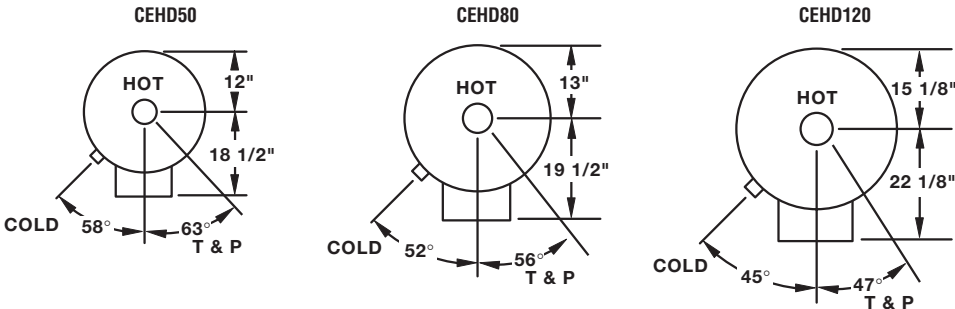
CEHD80(A)-KW-3CF

ElectriFLEX HD™ (Heavy Duty) Models

DIMENSIONS IN INCHES Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed

ELECTRIC MODELS		A	B	C	D	E	F	Approx. Shipping Weight (lbs)	
Model Number	Gal. Cap.	Floor to Heater Top	Jacket Dia.	Floor to T&P Conn.	Floor to Hot Water Outlet	Floor to Cold Water Inlet	Floor to Top of Control Box	Std.	ASME
CEHD50(A)-KW-3CF	50	50 ³ / ₁₆	24	40 ⁷ / ₁₆	52 ⁵ / ₈	6 ¹¹ / ₁₆	46 ¹ / ₂	270	302
CEHD80(A)-KW-3CF	80	60	26	51 ¹ / ₂	65 ¹ / ₂	6 ¹¹ / ₁₆	46 ¹ / ₂	335	378
CEHD120(A)-KW-3CF	119	64 ¹ / ₂	30 ¹ / ₄	54 ⁹ / ₁₆	66 ³ / ₄	6 ³ / ₄	50 ¹ / ₄	430	485

Voltage and phase must be specified when ordering. Example: CEHD50-12-3CF, 240 Volt, 3 phase.
All models available in 208/240/277 and 480 volt.
(A) ASME Construction available.
For ASME construction add "A" to the model number.
Example: CEHD50A-12-3CF, 240 Volt, single phase.
NOTE: Refer to pages 42/43 for technical information and pages 60/61 for GPH recovery information.





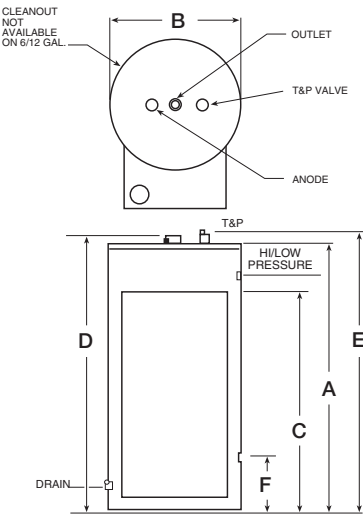
Commercial Electric ASME Models

56/57

Standard Features:

- Immersion Thermostat with Contactors
 - Immersion Type Thermostat for Accurate Temperature Control from Positive Off up to 180°F
- ASME Code Construction
- Vitraglas® Lining
- Commercial Hydrojet® Sediment Reduction System
- Elements—screw in style. Low watt density INCOLOY® material helps to minimize dry fire and prevents lime build up
- Completely Pre-Wired With Pressure Lug Terminal or Fuse Block Eliminating the need for Splicing or Taping Wires
- Dielectric Fittings
- Non-CFC Foam Insulation
 - 2" For 6-40 Gallon
 - 3" For 50-119 Gallon

- Protective Magnesium Anode Rod
 - Handhole Cleanout Opening (20 thru 120 Gallon Models Only)
 - T&P Relief Valve
 - Low Restrictive Brass Drain Valve
- Options:
- Low Water Cut-Off Switch
 - Safety Door Interlock
 - High and Low Pressure Limit Switches
 - Alarm Horn
 - Temperature and Pressure Gauge
 - Time Delay Step Sequences (24kW and Above)
 - NSF Construction
 - BMS Relay



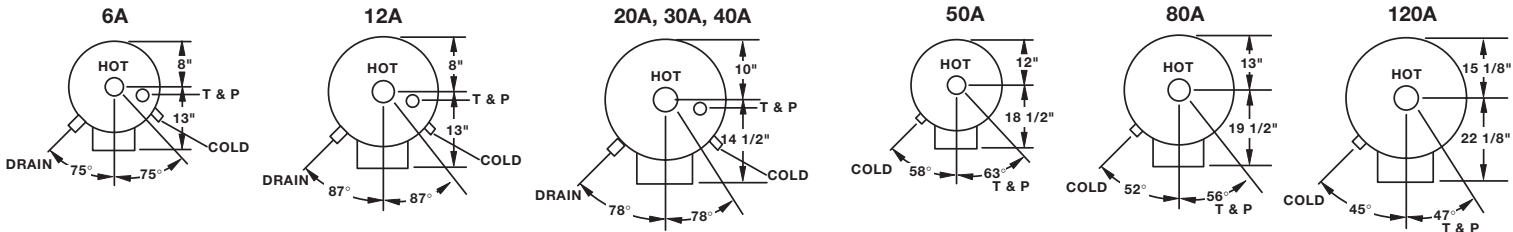
30A-36-3

ASME Models

DIMENSIONS IN INCHES

ELECTRIC MODELS			A	B	C	D	E	F		
Model Number	Gal. Cap.	Max. kW Input	Floor to Heater Top	Jacket Dia.	Floor to Top of Control Box	Floor to HW Outlet	Floor to T&P Valve	Floor to CW Inlet	Water Conn.	Approx. Shipping Weight (lbs)
6A-kW-3	6	3	17 ¹ / ₄	16	17	18 ¹ / ₄	18 ¹ / ₁₆	6 ¹ / ₄	³ / ₄	83
12A-kW-3	12	9	28	16	28	29	28 ¹⁵ / ₁₆	6 ¹ / ₄	³ / ₄	118
20A-kW-3	20	18	27 ¹ / ₂	20	27	28 ¹ / ₂	28	6 ¹ / ₄	³ / ₄	145
30A-kW-3	30	36	38	20	38	39	40 ¹ / ₄	6 ¹ / ₄	³ / ₄	180
40A-kW-3	40	36	48 ¹ / ₄	20	38	49 ¹ / ₄	50 ¹ / ₂	6 ¹ / ₄	³ / ₄	220
50A-kW-3	50	81	47 ³ / ₄	24	46 ¹ / ₂	49 ¹ / ₄	50 ³ / ₈	6	1 ¹ / ₂	270
80A-kW-3	80	81	60 ¹ / ₄	26	46 ¹ / ₂	61 ³ / ₄	61 ⁷ / ₈	6	1 ¹ / ₂	335
120A-kW-3	119	81	64 ¹ / ₂	30 ¹ / ₄	50 ¹ / ₄	66	66 ⁵ / ₁₆	6	1 ¹ / ₂	430

NOTE: Refer to pages 60/61 for GPH recovery information.





Commercial Electric Brute Vertical Round Models

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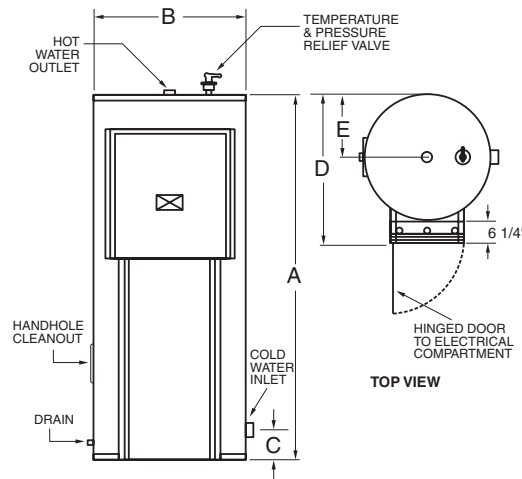
Standard Features:

- 150 psi ASME Code Tank
- Lifting Lug Access
- INCOLOY® Heating Elements
- Vitraglas® Lining
- Internal Fusing
- Galvanized Steel Jacket
- Magnesium Anode Rods
- Immersion Thermostat
- Digital Temperature Display
- Manual Reset High Limit
- Hinged Door with Keyed Lock
- ASME Temperature and Pressure Relief Valve
- Channel Iron Skid Base
- Hand Hole Cleanout
- 180°F Operation
- Three Year Limited Warranty
- Meets or Exceeds ASHRAE 90.1b (Current Edition)

Optional Equipment Features:

- Double Vitraglas® Lining—Extends tank warranty to six years
- Epoxy Lining
- Solar Coil(s)
- Tube Bundle(s)
- Low Water Cut-Off
- Pilot Lights
- Manual Limiting Switches
- Alarm Bell
- Low or High Pressure Switch
- Time Clock (7 Day or 24 Hour)†
- Safety Door Interlock
- Temperature and Pressure Gauge
- Manhole Cleanout (250 Gallons and Larger)
- Electronic Sequencer (36kW & Higher)
- Shunt trip disconnect†
- BMS Relay

†Separate mounting



VR-200-36

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Brute Vertical Round Models

DIMENSIONS IN INCHES

ELECTRIC MODELS			A	B	C	D	E		
Model Number	Gal. Cap.	Max. kW Load**	Floor to Top of Heater	Jacket Diameter	Floor to Cold Water Inlet	Depth	Back of Heater to Cold Water Inlet	Water Conn.	Approx. Shipping Weight (lbs)
VR-150-kW	150	90	65½	32	7¾	38¾	16	1½	650
VR-200-kW	200	162	78	32	7¾	38¾	17	1½	750
VR-250-kW	250	162	92	34	19½	40¾	17	1½	1165
VR-300-kW	300	162	80	40	21	46¾	20	2	1350
VR-400-kW	400	162	80	46	22½	52¾	23	2	1590
VR-500-kW	500	162	92	46	22½	52¾	23	2	1700
VR-600-kW	600	216	92	54	24½	60¾	27	2½	2010
VR-800-kW	800	270	104	52	24½	58¾	26	2½	2450
VR-1000-kW	1000	360	128	52	24½	58¾	26	2½	3160
VR-1250-kW	1250	360	133	58	26	64¾	29	3	3792
VR-1500-kW	1500	360	129	64	27½	70¾	32	3	4550
VR-2000-kW	2000	360	141	70	29½	76¾	35	3	5460
VR-2500-kW	2500	360	147	76	30½	82¾	38	3	6553

NOTE: Refer to pages 60/61 for GPH recovery information.

** Vertical Round models above 90kW at 208V, 240V or 380V, and 162kW at 400V, 415V or 480V, exceed the capacity of a single control panel and may require multiple control panels. Consult the factory for specific details and optional construction.

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Commercial Electric GPH Recovery Table for kW Input

60/61

kW Input	Gallon Per Hour Recovery Capacities				
	40°F	60°F	90°F	100°F	140°F
1	10.3	6.9	4.6	4.1	2.9
1.5	15.5	10.3	6.9	6.2	4.4
2	20.7	13.8	9.2	8.3	5.9
2.5	25.8	17.2	11.5	10.3	7.4
3	31.1	20.7	13.8	12.4	8.9
3.5	36.2	24.1	16.1	14.5	10.3
4	41.4	27.6	18.4	16.5	11.8
4.5	46.5	31.1	20.7	18.6	13.3
5	51.7	34.5	23.1	20.7	14.7
5.5	56.9	37.9	25.3	22.7	16.2
6	62.1	41.4	27.6	24.8	17.7
9	93.1	62.1	41.4	37.2	26.5
12	124	83	55	50	35
13.5	140	93	62	56	40
15	155	103	69	62	44
18	186	124	83	74	53
24	248	165	110	99	71
27	279	186	124	112	80

page 60

GPH Recovery Table

kW Input	Gallon Per Hour Recovery Capacities				
	40°F	60°F	90°F	100°F	140°F
30	310	207	138	124	89
36	372	248	165	149	106
45	465	310	207	186	133
54	558	372	248	223	160
81	838	558	372	335	239
144	1489	993	662	596	425
162	1675	1117	744	670	479
180	1861	1241	827	744	532
225	2326	1550	1033	931	665
270	2792	1861	1241	1117	798
360	3722	2482	1654	1489	1063
396	4094	2730	1820	1638	1170
450	4653	3102	2068	1861	1329
540	5583	3722	2482	2233	1595
630	6514	4343	2895	2606	1861
720	7444	4963	3309	2978	2127
900	9306	6204	4136	3722	2659

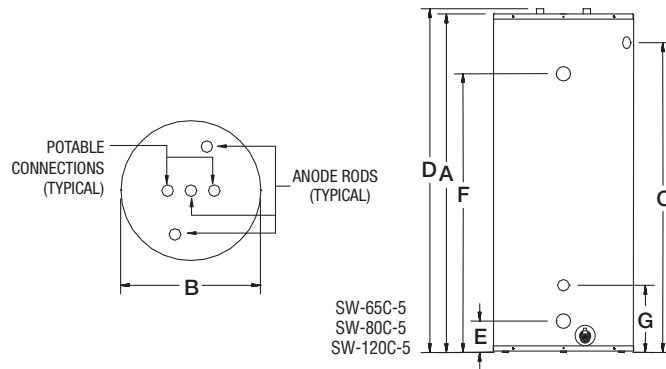
page 61



Commercial PowerStor Series® Single-Wall Indirect Models

62/63

- Heat Exchanger—Single-wall 1½" O.D. enamel coated (Vitrage®) steel coil
- Vitrage® Lining
- Hydrojet® Total Performance System
- Water Connections—1" NPT true dielectric fittings
- 1" NPT Connection for Boiler Supply and Return
- 2" Non-CFC Foam Insulation
- Immersion Type Aquastat—Accurate temperature control
- Three Protective Aluminum Anode Rods
- T&P Relief Valve
- Low Restrictive Brass Drain Valve
- 5 Year Tank and Heat Exchanger Warranty
- AHRI Certified Water Heater Ratings
- Stand-by Heat Loss Is Less than 1/2°F per Hour (ASHRAE 90.1b Current Standard)



SW-65C-5

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PowerStor Series® Single-Wall Indirect Models

DIMENSIONS IN INCHES

		A	B	C	D	E	F	G	
Model Number	Gallon Capacity	Floor to Heater Top	Jacket Dia.	Floor to T&P Conn.	Floor to Water Conn.	Floor to Exchanger Outlet	Floor to Exchanger Inlet	Floor to Aquastat	Approx. Shipping Weight (lbs)
SW-65C-5	54	59¼	22	53½	60	5⅝	47¾	11½	273
SW-80C-5	67	59	24	52⅞	59¾	5⅝	47¾	11½	300
SW-120C-5	107	62½	28¼	55¾	63¼	6⅝	48¾	11½	422

DOE Water Heater Performance

Model Number	Maximum First Hour Rating (Gal.) @ 140°F 115°F	Approximate Boiler Output Needed for Rating (BTU/Hr.)
SW-65C-5	534 820	420,000
SW-80C-5	546 834	420,000
SW-120C-5	583 871	420,000

Note: Pressure Drop across commercial models is 2.3 ft w.c. at 12 gpm for 200°F Boiler Supply.

Heat Exchanger Head Loss

GPM	5	8	10	12	14
Ft. of Hd. Loss	0.64	1.63	2.55	3.67	5.00

AHRI Water Heater Ratings

Model Number	First Hour Delivery	Continuous Draw Rating @ 135°F (Gal./Hr.)	Standby Heat Loss (°F/Hr.)	Heat Req. Rate (BTU/Hr.)	Heat Source Flow Rate (Gal./Min.)
SW-65C-5	405	370	0.7	245,000	14.0
SW-80C-5	415	370	0.6	245,000	14.0
SW-120C-5	445	370	0.4	245,000	14.0

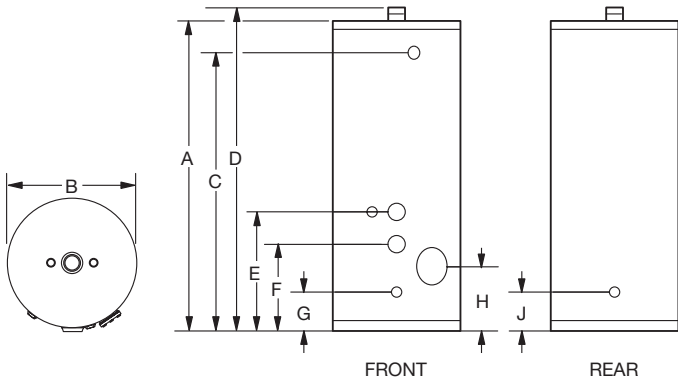
Note: These certified ratings were obtained with a heat source output rate and flow rate as specified and a 180°F boiler water supply temperature. Other results will be obtained under different conditions.

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Commercial
Jacketed Storage Tank Models

- Vitraglas® Lining
- Optional ASME Construction Available
- 2" Non-CFC Foam Insulation
- Water Connections—2" NPT true dielectric fittings (M-3-ST120R5A and M-3-ST200R5A Have 2½" Connections)
- Rear Connection—2" NPT Spud allows for rear water connection (M-3-ST120R5 and M-3-ST120R5A only)
- Hand Hole Cleanout (M-3-ST120R5 Has Optional Hand Hole Cleanout)
- Two Magnesium Anode Rods
- Steel Tank
- 1" Side T&P Valve Opening
- 3/4" NPT Aquastat Connection
- Low Restrictive Brass Drain Valve



M-3-ST80R5

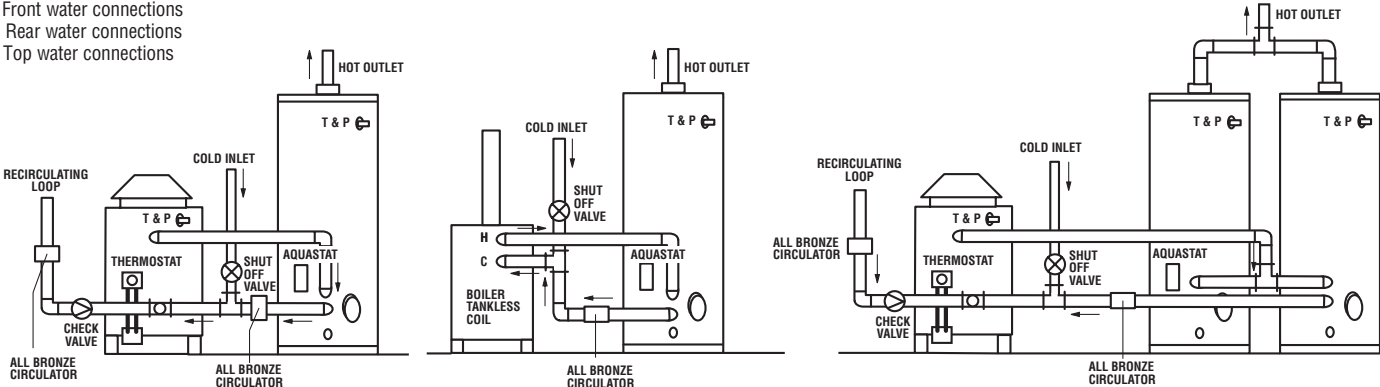
Jacketed Storage Tank Models

DIMENSIONS IN INCHES

		A	B	C	D	E	F	G	H	J		
Model Number	Gallon Capacity	Floor to Heater Top	Jacket Dia.	Floor to T&P Valve	Floor to Hot Water Conn.	Floor to Aquastat Top Circ. Conn.	Floor to Bottom Circ. Conn.	Floor to Drain Valve	Floor to Hand Hole Cleanout	Floor to Rear Water Conn.	Water Conn. Size†	Approx. Shipping Weight (lbs)
M-3-ST80R5	80	58¾	24	52½	59¾	14¼	9¼	4¾	7¼	—	2(F&T)	192
M-3-ST80R5A*	80	58¾	24	52½	59¾	14¼	9¼	4¾	7¼	—	2(F&T)	278
M-3-ST120R5	119	62½	28	55¾	63½	14½	9½	5	—	9½	2(F&T), 2(R)	312
M-3-ST120R5A*	119	62½	28	55¾	63½	14½	9½	5	7½	9½	2½(F&T), 2(R)	366
M-3-ST200R5A*	200	77	32	66	78	16¼	11¼	6¾	9¼	—	2½(F&T)	633

* Meets ASME Code

† (F) = Front water connections
(R) = Rear water connections
(T) = Top water connections





Commercial

Large Volume Jacketed Storage Tank Models

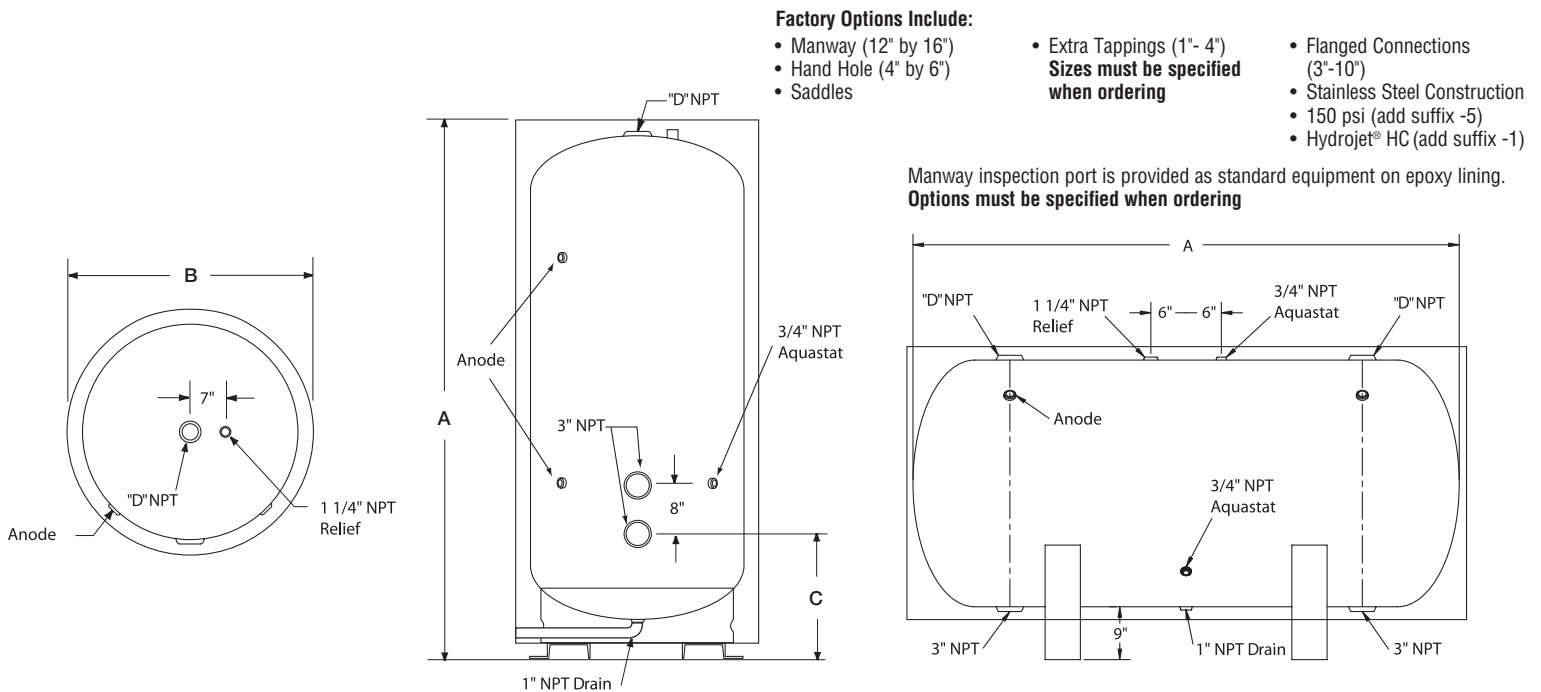
66/67

- Vertical or Horizontal Construction
- Water Connections—Two female 3" NPT fittings are located on the front for ease of service and installation
- ASME Construction
- Available with Vitraglas® Lining, Double Vitraglas® Lining, Epoxy Lining, or Stainless Steel Tank
- Hydrojet® HC—Optional
- 2" High Density Insulation
- Protective Magnesium Anode Rod(s)
- ASME Tested and Certified to 125 psi
- Designed for Storage of Potable Water up to 180°F
- 5 Year Tank Warranty



NV310JG5A

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Commercial

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Large Volume Jacketed Storage Tank Models

Vertical and Horizontal Models

DIMENSIONS IN INCHES

Model Number	Actual U.S. Capacity Gal.	Nominal U.S. Capacity Gal.	A		B	C	Hot Water Outlet Conn.	Approx. Shipping Weight (lbs) @125 PSI
			Vert. Height	Horiz. Length	Jacket Dia.	Floor to Inlet		
N†175J*5A	175	193	71	67	34	19½	2½	438
N†210J*5A	210	229	83	79	34	19½	2½	493
N†240J*5A	240	260	93	89	34	19½	2½	539
N†280J*5A	280	303	107	103	34	19½	2½	603
N†285J*5A	285	318	80	76	40	21	2½	667
N†310J*5A	310	344	86	82	40	21	2½	710
N†320J*5A	320	340	119	115	34	19½	2½	658
N†340J*5A	340	375	93	89	40	21	2½	760
N†360J*5A	360	397	98	94	40	21	2½	796
N†415J*5A	415	449	110	106	40	21	2½	881
N†435J*5A	435	486	89	85	46	22½	3	917
N†453J*5A	453	504	89	88	46	22½	3	942
N†465J*5A	465	502	122	118	40	21	2½	967

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Vertical and Horizontal Models

DIMENSIONS IN INCHES

Model Number	Actual U.S. Capacity Gal.	Nominal U.S. Capacity Gal.	A		B	C	Hot Water Outlet Conn.	Approx. Shipping Weight (lbs) @125 PSI
			Vert. Height	Horiz. Length	Jacket Dia.	Floor to Inlet		
N†500J*5A	500	572	81	77	52	24	3	1176
N†505J*5A	505	558	101	97	46	22½	3	1017
N†515J*5A	515	555	134	130	40	21	2½	1053
N†575J*5A	575	630	113	109	46	22½	3	1117
N†580J*5A	580	658	92	88	52	24	3	1310
N†645J*5A	645	702	125	121	46	22½	3	1217
N†675J*5A	675	752	104	100	52	24	3	1456
N†720J*5A	720	774	137	133	46	22½	3	1317
N†765J*5A	765	846	116	112	52	24	3	1602
N†790J*5A	790	846	147	143	46	22½	3	1400
N†840J*5A	840	940	128	124	52	24	3	1748
N†875J*5A	875	981	107	103	58	27½	3	1776
N†1040J*5A	1040	1128	149	145	52	24	3	2003
N†1245J*5A	1245	1395	124	120	64	29	3	3326
N†1530J*5A	1530	1689	148	144	64	27	3	3541

† = Tank Orientation

V = Vertical

H = Horizontal

Saddles required for horizontal models.

Use Bare Tank Diameter for saddle sizes.

* = Tank Lining/Construction

G = Vitraglas®

D = Double Vitraglas®

E = Epoxy

S = Stainless Steel

Ten Year Warranty with Double Vitraglas® Lining

One Year Warranty with Epoxy Lining

Tank Options (Options and sizes must be specified when ordering):

- Manway (12"x16")
- Hand hole (4"x6")
- Extra Tappings (1" - 4")
- Flanged Connections (3" - 10")
- 150 psi working pressure (add suffix -5)
- Hydrojet HC® (add suffix -1)

Example of full model number when ordering (NV240JG5A)

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Commercial

Large Volume Unjacketed Storage Tank Models

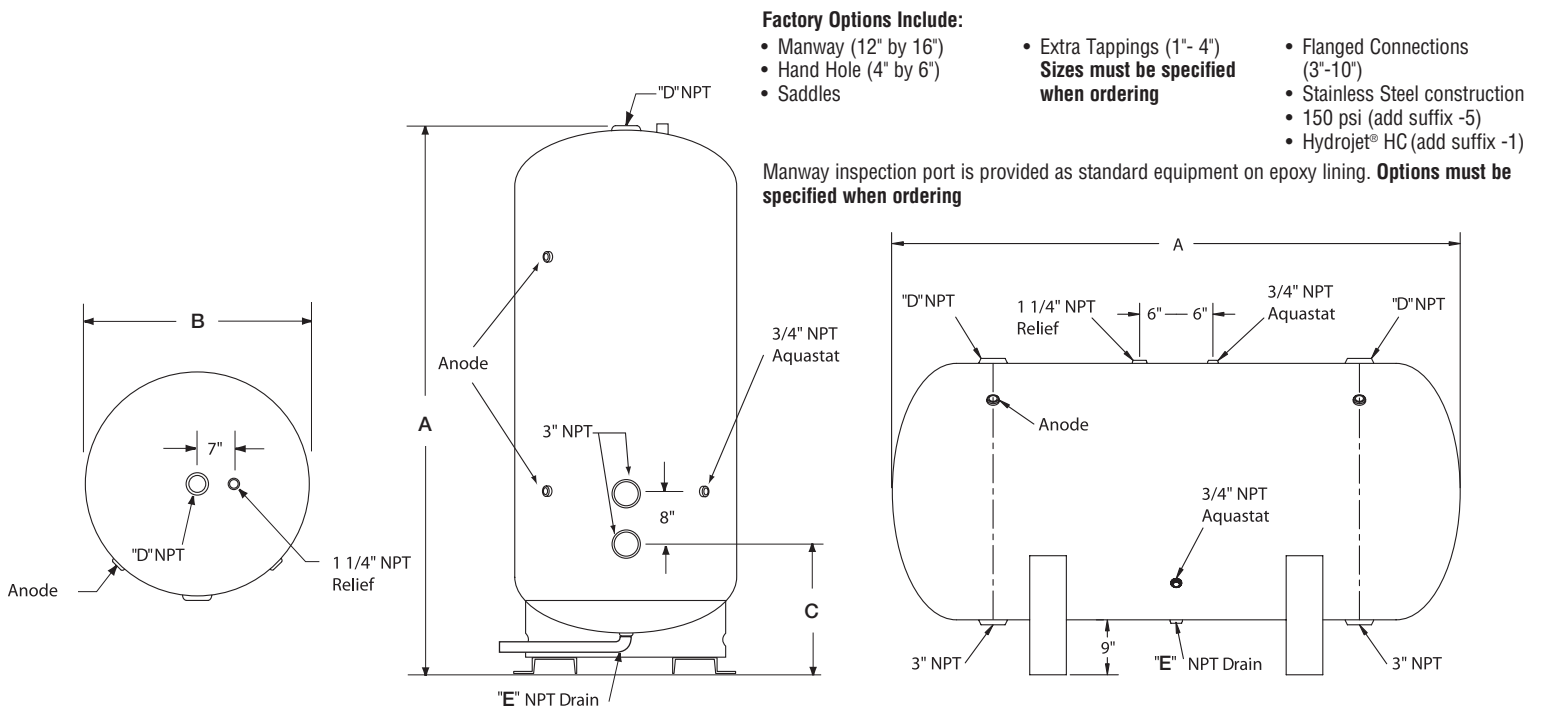
70/71

- ASME Construction
- Available with Vitraglas® Lining, Double Vitraglas® Lining, Epoxy Lining, or Stainless Steel Tank
- Hydrojet® HC—Optional
- Magnesium Anode Rod(s)—For protection and longer service life
- ASME Tested and Certified to 125 psi
- Red Oxide Primer—Completely covers exterior of tank
- 6" Skirt Height (Vertical Tank) Allows for Easier Access to Areas Under the Tank
- Lifting Lugs
- Designed for Storage of Potable Water up to 180°F
- 5 Year Tank Warranty



NV280NG5A

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Commercial

72/73

Large Volume Unjacketed Storage Tank Models

Vertical and Horizontal Models

DIMENSIONS IN INCHES

Meet or exceed ASHRAE 90.1b (current standard)

Model Number	Actual U.S. Capacity Gal.	Nominal U.S. Capacity Gal.	A		B	C	D	E	Approx. Shipping Weight (lbs) @125 PSI
			Vert. Height	Horiz. Length	Jacket Dia.	Floor to Return Conn.	Hot Water Outlet Conn.	Drain Valve	
N†175N*5A	175	193	67	63	30	17½	2½	1	303
N†210N*5A	210	229	79	75	30	17½	2½	1	347
N†240N*5A	240	260	89	85	30	17½	2½	1	383
N†280N*5A	280	303	103	99	30	17½	2½	1	433
N†285N*5A	285	318	76	45	36	19	2½	1	550
N†310N*5A	310	344	82	78	36	19	2½	1	527
N†320N*5A	320	340	115	111	30	17½	2½	1	476
N†340N*5A	340	375	89	85	36	19	2½	1	569
N†360N*5A	360	397	94	90	36	19	2½	1	559
N†415N*5A	415	449	106	102	36	19	2½	1	671
N†435N*5A	435	486	85	81	42	20½	3	1	695
N†453N*5A	453	504	88	51	42	20½	3	1	805
N†465N*5A	465	502	118	114	36	19	3	1	743
N†500N*5A	500	572	77	73	48	22	3	1	928
N†505N*5A	505	558	97	51	42	20½	3	1	874
N†515N*5A	515	555	130	126	36	19	2½	1	815
N†575N*5A	575	630	109	105	42	20½	3	1	863
N†580N*5A	580	658	88	84	48	22	3	1	1045

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Vertical and Horizontal Models

DIMENSIONS IN INCHES

Model Number	Actual U.S. Capacity Gal.	Nominal U.S. Capacity Gal.	A		B	C	D	E	Approx. Shipping Weight (lbs) @125 PSI
			Vert. Height	Horiz. Length	Jacket Dia.	Floor to Return Conn.	Hot Water Outlet Conn.	Drain Valve	
N†645N*5A	645	702	121	117	42	20½	3	1	947
N†675N*5A	675	752	100	96	48	22	3	1	1173
N†720N*5A	720	774	133	129	42	20½	3	1	1031
N†765N*5A	765	846	112	108	48	22	3	1	1301
N†790N*5A	790	846	143	139	42	20½	3	1	1101
N†840N*5A	840	940	124	120	48	22	3	1	1428
N†1040N*5A	1040	1128	145	141	48	22	3	1	1652
N†1340N*5A	1340	1457	153	147	54	25½	3	1½	2182
N†1820N*5A	1820	1983	168	168	60	27	3	1½	3110
N†2105N*5A	2105	2276	192	186	60	27	3	1½	3516
N†2395N*5A	2395	2570	216	210	60	27	3	1½	3922
N†2700N*5A	2700	2961	174	168	72	30	3	1½	3851
N†3115N*5A	3115	3384	198	192	72	30	3	1½	4338
N†3530N*5A	3530	3807	222	216	72	30	3	1½	4825
N†4050N*5A	4045	4462	192	93	84	33	3	1½	6009
N†4120N*5A	4120	4406	256	250	72	30	3	1½	5516
N†5695N*5A	5695	6141	262	256	84	33	3	1½	7994

† = Tank Orientation

V = Vertical

H = Horizontal

Saddles required for horizontal models.

Use Bare Tank Diameter for saddle sizes.

* = Tank Lining/Construction

G = Vitraglas®

D = Double Vitraglas®

E = Epoxy

S = Stainless Steel

Ten Year Warranty with Double Vitraglas® Lining

One Year Warranty with Epoxy Lining

Tank Options (Options and sizes must be specified when ordering):

- Manway (12"x16")
- Hand hole (4"x6")
- Extra Tappings (1" - 4")
- Flanged Connections (3" - 10")
- 150 psi working pressure (add suffix -5)
- Hydrojet HC® (add suffix -1)

Example of full model number when ordering (NV175NG5A)

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Commercial

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Large Volume Vertical Topcoat Storage Tank Models

- ASME construction
- Bradford White tanks with sprayed-on rigid insulation with acrylic topcoat exceeds ASHRAE 90.1 requirements with 2.25" of high-density polyurethane foam with an "R" value of R-16. SPF meets requirements for California Title 24. Bradford White spray foam insulation has the best fire spread rating with a class I foam with less than a 25-flame spread rating suitable for boiler room applications.
- The 100% acrylic topcoat is formulated for applications over spray polyurethane foam and is designed to withstand extreme weather and a full range of environmental conditions.
- The two component polyurethane foam is applied at ambient temperatures, directly to the vessel in the desired thickness. The 2-coat topcoat is then applied from a high-pressure spray gun and allowed to dry between applications.
- Alternative for insulated and steel jacket
- Any tank size or shape can be insulated
- Field repairable



NV280TG5A

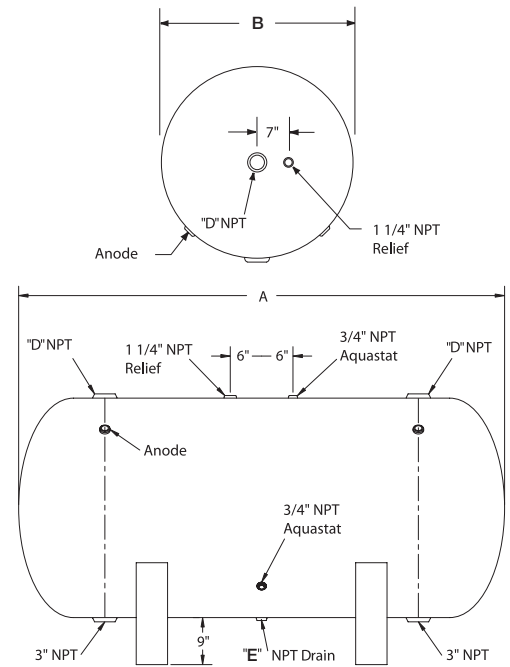
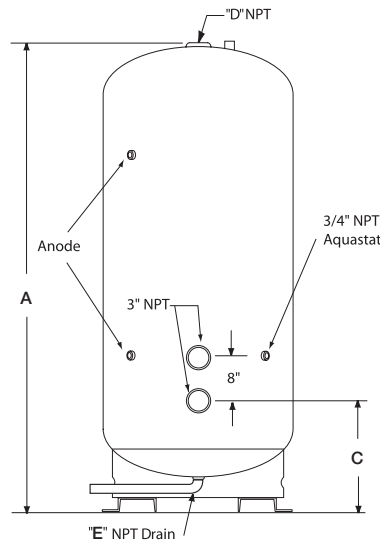
page 74

Spray Polyurethane Foam:

Specific Gravity:	1.17 – 1.19
Viscosity:	800 – 1300
Density:	@ 2" 2.10 – 2.35
	@ 4" 1.88 – 1.99
Closed Cell Content:	>90%
K-Factor, initial:	0.155 – 0.170
Permeance:	2.91 (perms)
	2.99 (perm inch)
Dimensional Stability:	+3.3 to +8.2 - Dry Age 28 days (158°F, Dry)
	-0.37 to -0.96 - Freeze 14 day (-20°F)
Flame Spread:	25 - ASTM E-84
Smoke Development:	450
R Value:	7.2/ inch
Max. Thickness:	4"

Acrylic Coating:

Topcoat:	2 coats white, 25 mils
Texture:	Smooth
Grade:	Spray or Roll
Base:	100% Acrylic
Solids by weight:	66% (+/-3)
Solids by volume:	55% (+/-3)
Weight per gallon:	11.65 (+/-2)
Tensile Strength:	300 psi (+/-25)
Elongation:	260% (+/-25)
Durometer hardness:	62 Shore A (+/-2)
Tear Resistance:	85 lbs/ in.
Permeance:	11 U.S. Perms @ 20 mils
Viscosity:	110 K.U. (+/-8)
Codes/ Approvals:	Energy Star, ICC, UL, ASTM D6083
Reflectivity:	New 85%, Aged 78%
Emmissivity:	.89



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Commercial

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Large Volume Vertical Topcoat Storage Tank Models

Vertical and Horizontal Energy Saver Models

DIMENSIONS IN INCHES

Model Number	Actual U.S. Capacity Gal.	Nominal U.S. Capacity Gal.	A		B	C	D	E	Approx. Shipping Weight (lbs) @125 PSI
			Vert. Height	Horiz. Length	Jacket Dia.	Floor to Return Conn.	Hot Water Outlet Conn.	Drain Valve	
N†175T*5A	175	193	69	65	35	17½	2½	1	303
N†210T*5A	210	229	81	77	35	17½	2½	1	347
N†240T*5A	240	260	91	87	35	17½	2½	1	383
N†280T*5A	280	303	105	101	35	17½	2½	1	433
N†285T*5A	285	318	76	45	41	19	2½	1	550
N†310T*5A	310	344	84	80	41	19	2½	1	527
N†320T*5A	320	340	117	113	35	17½	2½	1	476
N†340T*5A	340	375	91	87	41	19	2½	1	569
N†360T*5A	360	397	96	92	35	19	2½	1	559
N†415T*5A	415	449	108	104	41	19	2½	1	671
N†435T*5A	435	486	87	83	47	20½	3	1	695
N†465T*5A	465	502	120	116	41	19	3	1	743
N†500T*5A	500	572	79	75	53	22	3	1	928
N†515T*5A	515	555	132	128	41	19	2½	1	815
N†575T*5A	575	630	111	107	47	20½	3	1	863
N†580T*5A	580	658	90	86	53	22	3	1	1045
N†645T*5A	645	702	123	119	47	20½	3	1	947

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Vertical and Horizontal Models

DIMENSIONS IN INCHES

Model Number	Actual U.S. Capacity Gal.	Nominal U.S. Capacity Gal.	A		B	C	D	E	Approx. Shipping Weight (lbs) @125 PSI
			Vert. Height	Horiz. Length	Jacket Dia.	Floor to Return Conn.	Hot Water Outlet Conn.	Drain Valve	
N†675T*5A	675	752	102	98	53	22	3	1	1173
N†720T*5A	720	774	135	131	47	20½	3	1	1031
N†765T*5A	765	846	114	110	53	22	3	1	1301
N†790T*5A	790	846	145	141	47	20½	3	1	1101
N†840T*5A	840	940	126	122	53	22	3	1	1428
N†1040T*5A	1040	1128	147	143	53	22	3	1	1652
N†1340T*5A	1340	1457	153	147	59	25½	3	1½	2182
N†1690T*5A	1690	1814	189	183	54	25½	3	1½	2622
N†1820T*5A	1820	1983	168	168	65	27	3	1½	3110
N†2395T*5A	2395	2570	216	210	65	27	3	1½	3922
N†3115T*5A	3115	3384	198	192	77	30	3	1½	4338
N†3530T*5A	3530	3807	222	216	77	30	3	1½	4825
N†4120T*5A	4120	4406	256	250	77	30	3	1½	5516
N†5695T*5A	5695	6141	262	256	89	33	3	1½	7994

† = Tank Orientation

V = Vertical

H = Horizontal

Saddles required for horizontal models.

Use Bare Tank Diameter for saddle sizes.

Ten Year Warranty with Double Vitraglas® Lining

One Year Warranty with Epoxy Lining

Example of full model number when ordering (NV240TG5A)

Note: Please be advised that all tank sizes are available for this topcoat process.

* = Tank Lining/Construction

G = Vitraglas®

D = Double Vitraglas®

E = Epoxy

S = Stainless Steel

Factory Options Include:

- Manway (12" by 16")
- Hand Hole (4" by 6")
- Saddles

- Extra Tappings (1"- 4")
Sizes must be specified when ordering

- Flanged Connections (3"-10")
- Stainless Steel construction
- 150 psi (add suffix -5)
- Hydrojet® HC (add suffix -1)

Manway inspection port is provided as standard equipment on epoxy lining. **Options must be specified when ordering**

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Warranty Information

	Limited Tank Warranty	Limited Parts Warranty		Limited Tank Warranty	Limited Parts Warranty
Commercial Gas Models			Commercial Electric Models		
Light Duty Commercial High Performance Models	3 year	1 Year	Light Duty Commercial Upright, Lowboy Models.....	3 year	1 Year
Light Duty Commercial TTW® High Performance Models	3 year	1 Year	Light Duty Commercial Utility, Wall Hung Models.....	3 year	1 Year
Light Duty Commercial Upright Models.....	3 year	1 Year	Commercial Medium Duty Models	3 year	1 Year
Light Duty Commercial Power Vent Models	3 year	1 Year	Commercial Surface Mount, Immersion Models.....	3 year	1 Year
Light Duty Commercial Power Direct Vent Models	3 year	1 Year	Commercial ASME Models.....	3 year	1 Year
Light Duty Commercial Direct Vent Models	3 year	1 Year	Commercial Brute Models.....	3 year	1 Year
Light Duty Commercial Ultra Low NOx Models.....	3 year	1 Year	Commercial Indirect-Fired		
Commercial Flue Damper Models	3 year	1 Year	Commercial PowerStor® Models.....	5 year	1 Year
Commercial Induced Draft Models.....	3 year	1 Year	Commercial Storage Tank		
Commercial Millivolt Models	3 year	1 Year	Commercial Jacketed Models.....	5 year	1 Year
Commercial eF Series® Ultra High Efficiency Models	3 year	1 Year	Commercial Bare Glass Coated Models	5 year	1 Year
Commercial Ultra Low NOx Models.....	3 year	1 Year	Commercial Jacketed Large Volume Models.....	5 year	1 Year
			Commercial UnJacketed Large Volume Models	5 year	1 Year
			Commercial Top Coat Large Volume Models.....	5 year	1 Year

Some states do not allow limitations on warranties. See copy of the Warranty included with the heater.

Tank Type Serial Number Identification

FIRST LETTER - YEAR OF MANUFACTURE				
K = 1993	S = 1998	Z = 2003	E = 2008	K = 2013
L = 1994	T = 1999	A = 2004	F = 2009	L = 2014
M = 1995	W = 2000	B = 2005	G = 2010	M = 2015
N = 1996	X = 2001	C = 2006	H = 2011	N = 2016
P = 1997	Y = 2002	D = 2007	J = 2012	
SECOND LETTER - MONTH OF MANUFACTURE				
A = JANUARY	E = MAY	J = SEPTEMBER		
B = FEBRUARY	F = JUNE	K = OCTOBER		
C = MARCH	G = JULY	L = NOVEMBER		
D = APRIL	H = AUGUST	M = DECEMBER		

Example:
FC12345678 = MARCH, 2009 Production
NA12345678 = JANUARY, 1996 Production