DHW Recirculation Water Heater

For DHWR Top-Up Applications
All Voltages, Single or Three Phase Up To 88 KW

Accurately maintains temperature in domestic hot water recirculation loops, accounting for line loses without having to pipe to back the main water heating plant. Especially useful for buildings with multiple pressure zones.

Industrial Grade Construction

- Stainless steel pressure vessel provides maximum service life
- ASME Section VIII stamped vessel ensures high quality construction
- Heavy duty construction withstands demanding use
- 10 year tank warranty
- Solid state modulating control
- Internal leak detection sensor

A Reliable DHW Recirculation Process Water Heater

The Hubbell Model V is a dependable and trouble-free source for hot water in continuous, cyclical or variable flow systems. The heart of the Model V is a solid stainless steel ASME stamped pressure vessel which is impervious to the corrosive effects of hot water and provides maximum vessel longevity. Only the highest quality materials and components are used to ensure reliable operation in demanding DHW recirculation applications.

The Model V operates on solid-state modulating temperature control for the best longevity and temperature accuracy. There are no moving parts which would limit the operational lifespan, especially in constant-flow systems. When you specify and install a Hubbell Model V, you will have confidence in knowing the owner will be provided with a trouble-free source for hot water.

Riada Sales Inc. | sales@riada.ca | 604-299-3499

Why Install A Hubbell DHW Recirculation Grade Water Heater?

1 Reliability

The Hubbell Model V is designed to provide many years of operation. The tank is all stainless steel construction and is designed, constructed and stamped in strict conformance to ASME Section VIII. Backed by a 10 year tank warranty for peace of mind.

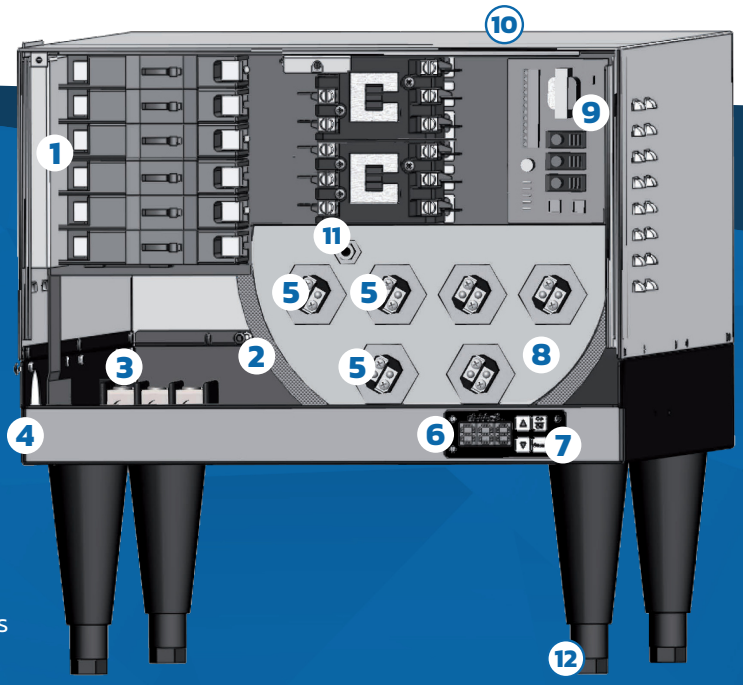
2 Lower Operating Costs

The Hubbell pressure vessel is encapsulated in environmentally friendly CFC/HCFC free closed cell foam insulation to minimize stand-by heat loss. This high quality insulation reduces heat loss by more than half when compared to fiberglass type insulation.

3 Advanced Construction & Controls

Provides trouble-free system integration, operation and maintenance. Temperature control is provided by an electronic solid state digital display controller. The controller is fully adjustable from 32-194°F (0°-90°C) and includes SCR modulating control. This eliminates the need for constant cycling of magnetic contactors in a DHW recirc application. The heater includes an integral low water cut off feature to prevent the heating elements from dry firing and an internal leak detection sensor notifies building operators if water is present in the control cabinet with dry contact output. The heating element and sensing probe are straight thread screw types that utilize an O-ring to minimize leakage problems as is common with flat gaskets and NPT connections.

1. Resettable circuit breakers (on units over 120 amps)
2. Closed cell foam insulation lowers operating costs
3. Single point power connection
4. Electronic leak detection system notifies the user if water is detected inside the control area
5. Screw plug elements simplify service
6. Digital display provides visual setpoint and fault conditions
7. Operator controls are easily accessible including ON/OFF, reset and temperature adjustment
8. ASME stamped stainless steel tank for extended life
9. Electronic control module integrates all control functions into one component
10. Brushed stainless steel exterior resists corrosion
11. All sensing functions are integrated into one probe
12. Flanged mounting legs standard for BC projects (as shown on cover image)



Model V6 Shown

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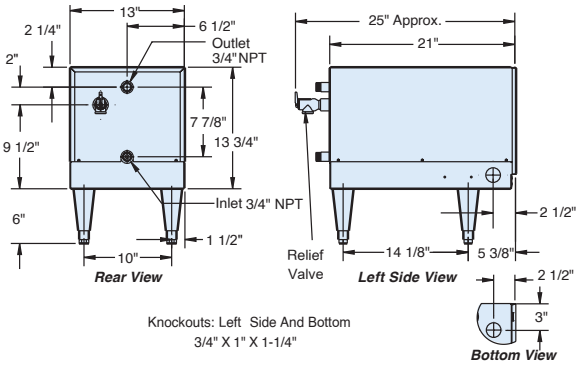
Model V6 (1 to 18kW) Dimensions

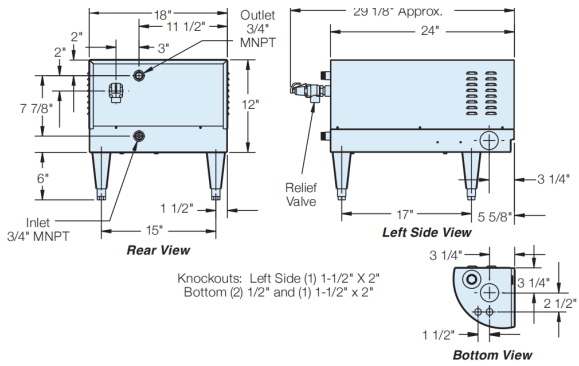


Model Number Selection Chart with Amperage

Base Model	KW Rating	Storage Capacity (Gallons)	Full Model Number Listed By Voltage & Phase					Amperage Draw By Voltage & Phase				
			120V	208V		240V		120V	208V		240V	
			1Φ	1Φ	3Φ	1Φ	3Φ	1Φ	1Φ	3Φ	1Φ	3Φ
V6	1	6 Gallons	V61A	–	–	–	–	9	–	–	–	–
	1.5		V61.5A	–	–	–	–	13	–	–	–	–
	2		V62A	–	–	–	–	17	–	–	–	–
	3		V63A	–	–	–	–	25	–	–	–	–
	4			V64RS	–	V64S	–	–	19	–	17	–
	5			V65RS	–	V65S	–	–	24	–	21	–
	6			V66RS	V66S	V66S	V66T	–	29	17	25	14
	7			V67RS	V67S	V67S	V67T	–	34	19	29	17
	9			V69RS	V69S	V69S	V69T	–	43	25	38	22
	10.5			V610RS	V610S	V610S	V610T	–	50	29	44	25
	12			V612RS	V612S	V612S	V612T	–	58	33	50	29
	13.5			V613RS	V613S	V613S	V613T	–	65	38	56	33
	15			V615RS	V615S	V615S	V615T	–	72	42	63	36
	18			V618RS	V618S	V618S	V618T	–	87	50	75	43

Note: The 6, 7, and 9kw models in 208 and 240 volt can be field converted from either 1 phase to 3 phase or from 3 phase to 1 phase

Model V6 (24 to 58.5kW) Dimensions



Model Number Selection Chart with Amperage

Base Model	KW Rating	Storage Capacity (Gallons)	Full Model Number Listed By Voltage & Phase				Amperage Draw By Voltage & Phase			
			208V		240V		208V		240V	
			1Φ	3Φ	1Φ	3Φ	1Φ	3Φ	1Φ	3Φ
V6	24	6 Gallons	V624RS	V624R	V624S	V624R	115	67	100	58
	27		V627RS	V627R	V627S	V627R	130	75	113	65
	30		V630RS	V630R	V630R	V630R	144	83	125	72
	36		V636RS	V636R	V636R	V636R	173	100	150	87
	39		V639RS	V639R	V639S	V639R	188	108	163	94
	40.5		V640RS	V640R	V640S	V640R	192	1111	167	96
	45		–	V645R	V645S	V645R	–	119	188	108
	54		–	V654R	–	V654R	–	150	–	130
	58.5		–	V658R	–	V658R	–	163	–	141

V16 model with 16 gallon tank model available for larger inputs – consult Riada for more information.

Model V – Recovery Ratings in GPM

kW Rating	Recovery Rate in GPM for Temperature Rise Shown (ΔT)				
	5°F	10°F	15°F	20°F	30°F
1	1.36	0.68	0.45	0.34	0.23
1.5	2.05	1.02	0.68	0.51	0.34
2	2.73	1.36	0.91	0.68	0.45
3	4.09	2.05	1.36	1.02	0.68
4	5.46	2.73	1.82	1.36	0.91
5	6.82	3.41	2.27	1.71	1.14
6	8.19	4.09	2.73	2.05	1.36
7	9.55	4.78	3.18	2.39	1.59
9	12.28	6.14	4.09	3.07	2.05
10.5	14.33	7.17	4.78	3.58	2.39
12	16.38	8.19	5.46	4.09	2.73
13.5	18.42	9.21	6.14	4.61	3.07
15	20.47	10.24	6.82	5.12	3.41
18	24.57	12.28	8.19	6.14	4.09
24	32.85	16.38	10.92	8.19	5.46
27	36.86	18.42	12.28	9.21	6.14
30	40.94	20.47	13.65	10.24	6.82
36	49.13	24.57	16.38	12.28	8.19
39	53.23	26.61	17.74	13.31	8.87
40.5	55.27	27.64	18.42	13.82	9.21
45	61.42	30.71	20.47	15.35	10.24
54	73.70	36.85	24.57	18.42	12.28
58.5	79.84	39.92	26.61	19.96	13.31
64	87.35	43.67	29.12	21.84	14.56
68	92.81	46.40	30.94	23.20	15.47
81	110.55	55.27	36.85	27.64	18.42
86	117.37	58.69	39.12	29.34	19.56
88	120.10	60.50	40.03	30.03	20.02

Grey cells: be aware of higher pressure drop in these ranges for 3/4" connection models

Model V
Water Heater Specifications

Vessel : 304L Stainless Steel
Storage Capacity : 6 or 16 Gallons
Voltage : 120 thru 600 Volt
Phase : 1Φ or 3Φ

Connections (1-58kW):

Material : Bronze
Inlet : 3/4" Male NPT
Outlet : 3/4" Male NPT
Relief Valve : 3/4" Female NPT

Connections (64-88kW):

Material : Bronze
Inlet : 1 ½" Male NPT
Outlet : 1 ½" Male NPT
Relief Valve : 1" Female NPT

Temperature Sensor

Type : Solid state
Style : Immersion
Range : 32-194°F (0-90°C)

Heating Element:

Type : Screw plug with Buna-N o-ring
Style : Tubular
Sheating : Copper with brass plug

Hi-Limit:

Type : Solid state
Style : Immersion
Reset : Manual
Range : 210°F (Fixed)

Fault Indicators:

Low water
High temp
No probe
Leak detection

Relief Valve:

Approvals : ASME / CSA
Temperature : 210°F
Pressure : 150 psi
Material : Bronze

Warranty:

Tank : 10 Years
Electrical : 1 Year

Pressure Drop:	V6	V16 (¾")	V16 (½")
5 GPM	0.11 psi	0.15 psi	<1psi
10 GPM	0.43 psi	0.58 psi	<1psi
25 GPM	2.6 psi	3.6 psi	<1psi
50 GPM	10.5 psi	14.4 psi	<1psi

Controller:

Degrees : °F or °C (Default °F)
Diferential : 1° thru 20° (Default: 2°)
Display : Shows set point or actual temperature (Default: Set point)
Low Water Sensing : On or Off (Default: On)
Low Water Reset : Manual or Automatic (Default: Automatic)
Staging : Modulating with solid state switches

Internal Wiring: Tefzel 750 200°C

Low Water Type: Conductivity

Design WP: 150 psi

Design TP: 225 psi

Digital Display: 3 digit 7 segment LED display

Insulation: CFC/HCFC Free Closed Cell Foam

Outer Jacket: 304 Stainless Steel

Optional Feature Selection Chart

Optional Code	Optional Feature
K	Slide mounting bracket for hanging installation (Model V6 only)
B	Alternate threaded inlet/outlet connection size (Model V16 only)
T	Alarm contact for hi-limit, low water, leak detection (Specify N.O. or N.C.)
L	Low-temperature interlock/alarm
XX	Customized features, please consult Riada

Model Number Designation

[ ] [ ] [ ] - [ ]

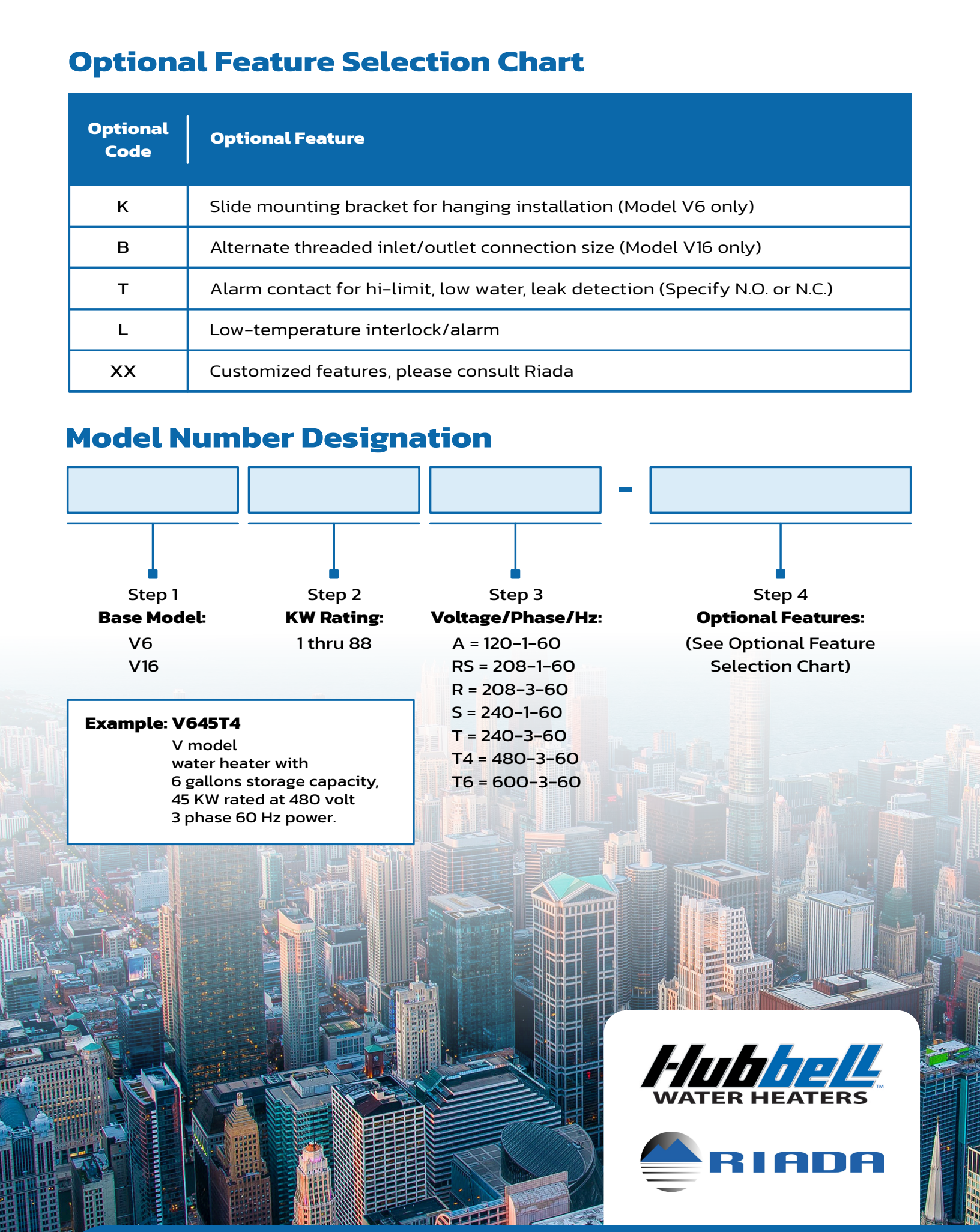
Step 1
Base Model:
V6
V16

Step 2
KW Rating:
1 thru 88

Step 3
Voltage/Phase/Hz:
A = 120-1-60
RS = 208-1-60
R = 208-3-60
S = 240-1-60
T = 240-3-60
T4 = 480-3-60
T6 = 600-3-60

Step 4
Optional Features:
(See Optional Feature Selection Chart)

Example: V645T4
V model
water heater with
6 gallons storage capacity,
45 KW rated at 480 volt
3 phase 60 Hz power.



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