

PRIMERA[®] WATER HEATER

FACTORY SUPPLIED* CIRCULATING PUMP PERFORMANCE

For information on boiler pumps (PRIMERA model suffix "B"), see form 34-115.

Model	Circulator Size (115V)		Design Flow Rate GPM	Temperature Rise at Design Flow °F	Maximum Foot Head of Circulator at Design Flow Rate	Foot Head Loss through PRIMERA at Design Flow Rate
	HP	Amp Draw				
400W 540W	1/6	2.1	30	23	12	8
750W	2/5	4.8	61	21	15	10
1000W	3/4	8.2	76	23	21	12
1200W	3/4	8.2	46	45	24	18
1600W	3/4	8.2	61	45	23	18
2000W	1	11.2	76	45	28	19

* The above pumps are supplied as standard equipment with domestic water heating applications (Model W series).

The above pump selections for each model heater are based upon typical piping from a single water heater to a single storage tank. Pumps will be sufficient for a heater-to-tank piping arrangement including 30 linear feet of pipe total, four 90° elbows, three full-port ball valves (two shutoffs and one on the low-temp bypass), four unions, two tee fittings and the water heater. Installations that exceed this pipe length and fitting count or involve multiple heaters and/or tanks must have a calculation performed to determine flow restriction and the pump selection. Larger pumps are available if needed as special orders from Riverside Hydronics.

IMPORTANT FOR DOMESTIC WATER HEATING APPLICATIONS:

1. Design flow rate is the required flow rate for domestic water heating applications. **Do not deviate above or below this flow rate, as erosion or scaling of the heat exchanger may result.**
2. Chart information is acceptable for water hardness up to 16 grains (272 ppm). Otherwise, consult the factory.
3. Pumps supplied for domestic water heating are all bronze construction.
4. Models 1000W and 2000W should be piped with 2-1/2 inch diameter type L copper tubing and fittings. Other models may be piped with 2 inch diameter.