

RHEEM® SIZING GUIDE

Tankless Electric Water Heater for Residential Applications



To size and select the appropriate tankless electric water heater, this information is needed:

- Desired outlet temperature
- Inlet water temperature
- Flow rate in gallons per minute (GPM)
- Power available: voltage (VAC) and phase

1 Identify Rise in Temperature: Found by using the hot water temperature desired (typically 105 °F) and subtracting Ground Water Temperature (see map).

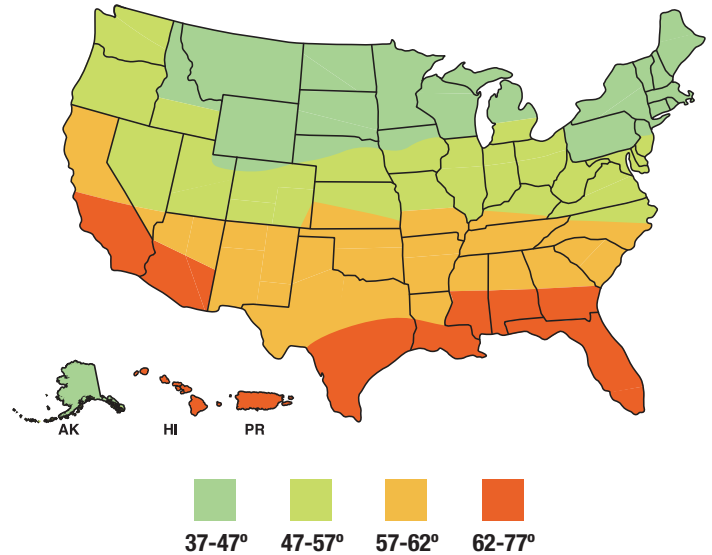
2 Identify Heating Power Required: Using the Heating Power Required chart below, find the intersection between Rise in Temperature and Total Gallons Per Minute Demand to identify the kilowatts (kW) needed.

Note: GPM can be found on the faucet aerator. For example, a faucet with a flow rate of 0.5 GPM plus a shower with a flow rate of 1.5 GPM equals a 2.0 GPM total demand. If chart is not applicable, use the following formulas.

Formula to determine heating power required:
For simplified calculation, kW reference is based on a 100% heater efficiency. $kW \text{ Required} = GPM \times (\text{temperature rise} / 6.83)$

3 Choose Model: Use the Residential Electric Professional Classic Tankless Water Heaters specification sheet to select a model based on required kilowatts and voltage.

Average Groundwater Temperature Map: US, Canada, and Puerto Rico



Source: US Environmental Protection Agency
These are general temperature zones, actual inlet temperature may be affected by local variations and seasonal changes.

HEATING POWER REQUIRED

Total Gallons Per Minute (GPM) Demand	6.0	18 kW	27 kW	36 kW	–	–	–	–	–	–	–
	5.0	18 kW	24 kW	36 kW	–	–	–	–	–	–	–
	4.0	13 kW	18 kW	24 kW	36 kW	36 kW	–	–	–	–	–
	3.0	11 kW	18 kW	18 kW	24 kW	27 kW	36 kW	36 kW	–	–	–
	2.0	8 kW	11 kW	13 kW	18 kW	18 kW	24 kW	24 kW	27 kW	36 kW	36 kW
	1.0	8 kW	8 kW	8 kW	8 kW	11 kW	11 kW	13 kW	18 kW	18 kW	18 kW
	0.5	8 kW	8 kW	8 kW	8 kW	8 kW	8 kW	8 kW	8 kW	8 kW	11 kW
		20°F	30°F	40°F	50°F	60°F	70°F	80°F	90°F	100°F	110°F
		Rise In Temperature °F									