





# Brigade Comparison Matrix

Manufacturers Models	 <b>PVI Brigade 20 L 25-RGC</b>	 <b>AO Smith Cyclone BTH-199(A)</b>	 <b>Bradford White eF EF-100T-199E-3N(A)</b>	 <b>Rheem Triton SU GHE80SU/SS-200(A)</b>
BTU Input Recovery	199,000 329 GPH at 70° F rise, 233 GPH at 100° F rise	199,900 336 GPH at 70° F rise, 235 GPH at 100° F rise	199,900 317 GPH at 70° F rise, 223 GPH at 100° F rise	199,900 329 GPH at 70° F rise, 230 GPH at 100° F rise
Efficiency	96%	97%	92%	95%
Vessel and Heat Exchanger	AquaPLEX stainless steel naturally corrosion resistant with no need a lining or anodic protection	Glass-lined steel tank linings erode over and require anodic protection to prevent corrosion and tank failure	Glass-lined steel tank requires anodic protection to prevent corrosion and tank failure	Glass-lined steel tank requires anodic protection to prevent corrosion and tank failure
Internal Operation	Single-pass, condensing, gas input modulating water heater, with a circulator that maximizes efficiency, tight temperature control and reduces cycling	Three-pass glass-lined coil heat exchanger with a modulating burner	Vitraglas lined tank. heat exchanger with a down-fired premix power burner	Constructed with porcelain coated ASME-grade steel. heat exchanger
Turndown Ratio	7.1	3.1	Manufacturer does not provide turndown ratio	Manufacturer does not provide turndown ratio
Digital Display	Touchscreen operating system integrated ignition and operating controls programmable electronic operator Digital temperature readouts, built-in diagnostics Alarm w/ remote contacts, visual modulation rate	Touchscreen control system Built-in Diagnostics Run history information	Digital LCD display Diagnostic codes System ignition functions	Touchscreen control system Smart monitoring technology EcoNet Smart monitoring
Ignition	Direct spark	Direct spark	Direct spark	Direct spark
Safety Features	Pilot-less ignition, LWCO, Flame loss, Ignition failure detection, False flame detection, Vent limit temperature, Low 24VAC, Water pressure	Pilot-less ignition, Flame sensor, LWCO, High and low gas pressure switches, Water pressure, ECO High temp limit switch	Energy Cut Off, T&P relief valve, Pilot-less ignition, Flame sensor, LWCO	Pilot-less ignition, Flame sensor, Leak sense, LWCO, Water pressure, ECO High temp limit switch
Side-by-Side Installation Footprint (Approx. Sq. Ft)	6	13	18	13
Dimensions (Width x Depth x Height)	16" x 26-1/4" x 75"	27-3/4" x 27-3/4" x 76-1/2"	28-1/4" x 28-1/4" x 56-3/8"	26-3/8" x 26-3/8" x 67-7/8"
Dry Weight (lb.)	348	523	570	650
Warranty	6 Years Includes 1st year annual maintenance and labor	3 Years	3 Years	3 Years