

120 volt vs. 240 volt?

 kilnfrog.com/pages/120-volt-vs-240-volt

Kilns are usually powered by either electricity or gas. For our purposes, we'll only be discussing electric power requirements. The larger the firing chamber in a kiln, the greater amount of power will be required to operate the kiln. So, before you make a decision to about which kiln to purchase, you must first consider where you are locating the kiln and the available power source for your unit. As a rule, small kilns can operate using standard household 120 volt power. Larger kilns typically require 240 volts to operate. In some settings 208 volts may be all that is available. To provide the performance it was designed to give, a kiln must have the proper outlet and matching breaker to supply adequate voltage and amperage. An incorrect connection may cause disappointing or even hazardous results. A qualified electrician needs to be consulted to determine whether your wiring is adequate. Here's a sparky look at the options.

120 Volt Kilns

Smaller kilns (under 13") typically run on household 120 volt, 13 amp household current. This will allow the owner to plug the kiln into just about any plug in the house. Most standard household breakers are 15-20 amps, so a 13 amp draw on that breaker will not overtax or "blow" the breaker. As the firing chamber increases in size (14" – 18") the amperage required to heat the chamber will increase to 15-17 amps. These higher amperage requirements will dictate the need to install a dedicated circuit of 20 amps to be installed. This new circuit will be dedicated specifically to the kiln, and will not have anything else attached to it that will draw power. A licensed electrician should install a dedicated circuit, and will typically do that for a nominal fee.

240 Volt Kilns

Larger kilns (over 18") typically operate on 240 volts and may require either 30, 40 or up to a 50 amp service. These kilns usually require the services of a licensed electrician for installation of special receptacles and special wiring. According to one manufacturer, incorrect voltage is the number one mistake made by customers when ordering a kiln. Be sure that you know whether the available the service is 208 or 240 volts, as the wiring looks exactly alike. Standard electric kilns will run on 240 volts, single phase. Commercial electric kilns may be wired for 240, 208, 380, or 480 volts; single or three phase. Most commercial kilns require direct wiring and a receptacle outlet is not required.