



Generator Power Requirements for Energy Kinetics Boilers

Will a System 2000, Accel CS, 90+ Resolute, or Ascent Combi boiler run on a generator? We know from testing and from experience that the answer is a big 'Yes'. We have thousands of boilers throughout the Mid-Atlantic, Northeast, and in Alaska that have been run on generators for extended periods through many years.

How much power does the boiler need? How big of a generator should I buy?

One way to answer the 'how much power' question is by comparison. For example, a typical Energy Kinetics boiler installation will use half the power of a typical microwave oven or of a typical coffee maker.

Model	Running with Circulator and 3 Zone Valves	Starting (brief inrush only) This is required to start the boiler
System 2000 EK1, EK2, EK3	About 200 W	About 750W
90+Resolute EK1R	About 200 W	About 750W
Accel CS EK1C, EK2C, EK3C	About 200 W	About 750W
Ascent Combi EK1T	About 200 W	About 750W

*See below to estimate additional power requirements for zone circulators. See manufacturer specification and air handlers (typically 3 times running wattage unless soft start).

Here's a simple way to estimate the power consumption:

The power consumption for a typical boiler is about 200 watts running.

Starting watts for the burner motor will be about 3 times that, or 600 watts peak.

The boiler circulator requires about 100 watts running, and about 300 watts starting.

The Energy Manager controls the timing for the boiler circulator and the burner. The typical starting sequence will be for the boiler circulator to start first, then after a short delay, the burner motor will start up.

Zone valves will use about 10 watts each, while zone circulators use about 100 watts each. Starting watts for zone circulator motor(s) will be about 300 watts (each), although less for high efficiency circulators like the Taco 007e and Grundfos Alpha.