

# ELECTRIC KILN FIRING COST GUIDE

## EXAMPLE MITCHELL KILN 20AMP

### INTRODUCTION

This guide provides a comprehensive method to calculate the firing costs of an electric kiln, ensuring that artists and craftsmen can manage their resources effectively.

### REQUIRED INFORMATION

To proceed with the estimation, gather the following details:

- **A (Amps):** Check the kiln's nameplate.
- **V (Volts):** Use 230 for 220 or 240 volts.
- **F (Firing Time):** Multiply the total hours by 0.6, considering the kiln operates at full power only for a portion of the time.
- **C (Cost per Kilowatt-hour):** Refer to your electricity bill for this rate.

### CALCULATION FORMULA

Utilize the formula below to estimate the firing cost:  $\{\text{Firing Cost}\} = \{A \times V \times F \times 0.6 \times C$

### EXAMPLE

For a kiln with 20 Amps, 230 Volts, a firing time of 8 hours, and an electricity rate of \$0.25 per Kilowatt-hour  $\{\text{Firing Cost}\} = 20 \times 230 \times 8 \times 0.6 \times 0.25 = \$5.52$

### ADDITIONAL CONSIDERATIONS

- **Extended Firing Time:** While a longer firing time does increase the energy cost, the impact is mitigated by the 0.6 factor in the "F" parameter.
- **Accuracy:** For more precise results, break down the firing time into smaller segments and calculate each separately.
- **Example for Drying:** A 3-hour drying at the lowest setting might use a 0.1 factor for "F", resulting in different cost calculations for various firing stages.