



Food Service Technology Center Appliance Test Summary Report

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Manufacturer	Moffat
Model	E32MS
Appliance	Full-size convection oven - Electric

Report Number	5012.08.07
Test Date	November, 2006
Tested By	G. Sorensen

Purpose of Testing

This testing determined the energy input rate, preheat time and energy, idle energy rate and heavy-load cooking-energy efficiency of the oven by applying ASTM F1496-99.

Energy Input Rate

Test Voltage (V)	208
Rated Energy Input Rate (kW)	6.0
Measured Energy Input Rate (kW)	5.9
Difference (%)	1.7

Preheat to 350°F

Duration (min.)	5.9
Energy Consumption (Wh)	580
Preheat Rate (°F/min.)	45.1

Idle at 350°F

Idle Energy Rate (kW)	0.77
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Heavy-Load Energy Efficiency*

Food Product	Russet Potatoes
Oven Temperature (°F)	350
Cook Time (min.)	57.1
Cooking Energy Rate (kW)	5.3
Energy to Food (Btu/lb)	190
Energy to Oven (Btu/lb)	238
Cooking Energy Efficiency (%)	79.8 ± 2.0
Production Capacity (lb/h)	76.8 ± 2.9

* based on a minimum of three test replicates



Moffat Inc.

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Heavy-Load Potato Test Data

	Test #1	Test #2	Test #3
Measured Values			
Test Voltage (V)	208	208	208
Electric Energy to Oven (kWh)	5.18	5.00	5.10
Cook Time (min)	57.8	55.8	57.8
Initial Weight of Potatoes (lb)	73.210	72.620	73.385
Final Weight of Potatoes (lb)	67.095	66.910	67.45
Initial Temperature of Potatoes (°F)	71.1	75.0	71.3
Final Temperature of Potatoes (°F)	205.0	205.0	205.0
Calculated Values			
Sensible (Btu)	8,234	7,930	8,242
Latent (Btu)	5,932	5,539	5,757
Total Energy to Food (Btu)	14,166	13,469	13,999
Energy to Food (Btu/lb)	193	185	191
Total Energy to Oven (Btu)	17,679	17,065	17,406
Energy per Pound of Food Cooked (Btu/lb)	241	235	237
Cooking-Energy Efficiency (%)	80.1	78.9	80.4
Cooking-Energy Rate (kW)	5.4	5.4	5.3
Production Capacity (lb/h)	76.0	78.1	76.2

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