

Microcomputer Automatic Calorimeter For Solid Fuel Combustion Heat Analysis

Item Number: KT-TE6

Introduction

Optimize solid fuel calorific value testing with this microcomputer automatic calorimeter. Delivering automated water handling, a 0.0001 K temperature resolution, and rapid 15-minute cycles, it ensures reliable, standard-compliant combustion analysis across power generation, metallurgy, coal, and petrochemical quality control.

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Application	Description	Key Benefit
Thermal Power Generation	Routine heating value determination of pulverized thermal coal, raw coal deliveries, and combustion ash residues.	Accurately calculates boiler thermal efficiency, verifies contract energy compliance, and optimizes fuel blending to reduce operational costs.
Coal Mining & Processing	High-throughput quality control of washed coal, run-of-mine coal, middlings, and coal gangue at preparation plants.	Enables real-time classification of fuel grades, guarantees export compliance, and prevents financial penalties from calorific variance.
Metallurgical Coke Evaluation	Accurate combustion profiling of metallurgical coke, semi-coke, and carbonaceous reducing agents in blast furnace feedstocks.	Ensures strict thermal balance in smelting operations by verifying the precise carbon energy output of incoming coking charges.
Petrochemical Refining	Heating value characterization of petroleum coke, refinery heavy residues, solid pitch, and carbonaceous byproduct streams.	Provides essential thermodynamic parameters for secondary co-generation boilers and hazardous byproduct disposal compliance.
Third-Party Inspection & Metrology	Independent verification and dispute arbitration of commercial solid fuel shipments according to GB/T 213-2008 protocols.	Produces audit-traceable, tamper-resistant digital records and standardized printouts for legal metrology and contract clearance.
Environmental & Biomass Recovery	Evaluation of solid recovered fuels (SRF), refuse-derived fuels (RDF), and agricultural pelletized biomass wastes.	Assesses renewable energy potential and validates combustion characteristics for municipal waste-to-energy facilities.

Parameter	Specification (KT-TE6)
Product Identification	KT-TE6 Microcomputer Automatic Calorimeter
Standard Compliance	GB/T 213-2008 Standard Test Method for Calorific Value of Coal
System Heat Capacity	Approximately 10,500 J/K
Temperature Resolution	0.0001 K
Calorific Value Precision	0.1% (Benzoic Acid Reference)
Typical Test Duration	Approximately 15 minutes
Quantitative Dosing Error	$\leq \pm 0.1$ g
Outer Water Jacket Capacity	30 L
Inner Water Bucket Capacity	Approximately 2.3 L
Temperature Measurement Range	0°C to 65°C
Operating Ambient Temperature Range	5°C to 40°C
Ignition Voltage	24 V

Parameter	Specification (KT-TE6)
Ignition Timing Sequence	6 minutes
Operating System	Windows PC-Controlled Architecture
Power Supply Requirements	AC 220V $\pm$ 10%, 50 Hz
Power Consumption	< 300 W