



designed for scientists



C 3000 isoperibol Package 1/12

/// Data Sheet

The IKA C 3000 isoperibol calorimeter is the technologically advanced successor of our C 2000 model, with great new features such as faster sample runs, a spherically shaped decomposition vessel for faster heat transfer and a convenient touch screen for easy operation. Both the oxygen filling and the entire water handling processes are fully automated.

Its measurements and calculations of net calorific value are according to ISO 1928, ASTM D4809, ASTM D5865, ASTM 240 and GB T213. Areas of application include the power and cement industry where accurate analyses are vital.



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Key features:

- Easy handling by touch screen operation or a standard USB mouse
- Two different starting temperatures to choose from (22°C, 30°C)
- Automatic ignition, automatic water filling and draining, automatic oxygen filling
- Several interfaces: Ethernet, RS 232, USB, SD card slot
- Six temperature sensors to monitor all temperatures allowing best analyses
- Spherically shaped decomposition vessel for better pressure stability and faster heat transfer
- Easy sample preparation due to new upside down crucible holder technology
- Can be operated with a chiller (e.g. RC 2 basic).

It includes:

- C 3000 measuring cell
- C 6012 decomposition vessel, halogen resistant
- RC 2 basic recirculation chiller
- Wear parts and consumables for up to 500 tests

The halogen resistant decomposition vessel C 6012 included with the C 3000 isoperibol Package 1/12 is equipped with the unique-to-IKA catalytic active inner surface. It supports the chemical reactions inside the vessel, resulting in a higher recovery rate for halogens and sulfur.



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Technical Data

Measuring range max. [J]	40000
Measuring mode dynamic 22°C	yes
Measuring mode isoperibol 22°C	yes
Measuring mode dynamic 30°C	yes
Measuring mode isoperibol 30°C	yes
Measurements/h dynamic	6
Measurements/h isoperibol	4
Reproducibility dynamic (1g benzoic acid NBS39i) [%RSD]	0.15
Reproducibility isoperibol (1g benzoic acid NBS39i) [%RSD]	0.05
Touchscreen	yes
Working temperature [°C]	22 - 30
Temperature measurement resolution [K]	0.0001
Cooling medium temperature [°C]	12 - 27
Cooling medium permissible operating pressure [bar]	1.5
Cooling medium	tap water
Type of cooling	flow
Chiller	RC 2 basic
Flow rate [l/h]	60 - 70
Rec. flow rate at 18°C [l/h]	60
Oxygen operating pressure max. [bar]	40
Interface scale	RS232
Interface printer	USB
Interface PC	RS232
Interface ext. keyboard	yes
Oxygen filling	yes
Decomposition vessel C 6010	yes
Decomposition vessel C 6012	yes
Analysis according to ASTM D240	yes
Analysis according to ASTM D4809	yes
Analysis according to ASTM D5865	yes
Analysis according to ISO 1928	yes
Analysis according to GB T213	yes
Dimensions (W x H x D) [mm]	500 x 425 x 450
Weight [kg]	29
Permissible ambient temperature [°C]	20 - 30
Permissible relative humidity [%]	80
Protection class according to DIN EN 60529	IP 20
RS 232 interface	yes
USB interface	yes
Voltage [V]	100 - 120
Frequency [Hz]	50/60
Power input [W]	1700