

## BOMB CALORIMETER

### 1. AUTOMATED CALORIMETER

#### A. C 6000 global standards Package 1/10, Cat.No., 0010004520



The C 6000 global standards oxygen bomb calorimeter combines modern technology, variability and automation in one instrument. It operates according to all bomb calorimeter standards, such as e.g. the DIN, ISO, ASTM, GOST and GB. The operator can choose between three different starting temperatures 22°C, 25°C, 30°C in each measuring mode. Measuring modes adiabatic, isoperibol and dynamic.

#### Scope of delivery

- C 6000 global standards
- C 6010 Decomposition vessel, standard
- RC 2 basic

#### Technical Data

Measuring range max. : 40000 J

Measuring mode adiabatic 22°C : yes

Measuring mode dynamic 22°C : yes

Measuring mode isoperibol 22°C : yes

Measuring mode adiabatic 25°C : yes

Measuring mode dynamic 25°C : yes

Measuring mode isoperibol 25°C : yes

Measuring mode adiabatic 30°C : yes

Measuring mode dynamic 30°C : yes

Measuring mode isoperibol 30°C : yes

Measurements/h adiabatic : 5

Measurements/h dynamic : 6

Measurements/h isoperibol : 4

Reproducibility adiabatic (1g benzoic acid NBS39i) : 0.05 %RSD

Reproducibility dynamic (1g benzoic acid NBS39i) : 0.15 %RSD

Reproducibility isoperibol (1g benzoic acid NBS39i) : 0.05 %RSD

Touchscreen : yes

Working temperature : 22 - 30 °C

Temperature measurement resolution : 0.0001 K

Cooling medium temperature : 12 - 27 °C

Cooling medium permissible operating pressure : 1.5 bar

Cooling medium : tap water

Type of cooling : flow

Chiller : RC 2 basic

Flow rate : 60 - 70 l/h

Rec. flow rate at 18°C : 60 l/h

Oxygen operating pressure max. : 40 bar

Interface scale : RS232  
Interface printer : USB  
Interface PC : RS232  
Interface test rack : yes  
Interface ext. keyboard : yes  
Oxygen filling : yes  
Degasification : yes  
Decomposition detection : yes  
Decomposition vessel C 6010 : yes  
Analysis according to DIN 51900 : 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  
Works according to DIN 51900 : yes  
Works according to DIN EN ISO 1716 : yes  
Works according to DIN EN ISO 9831 : yes  
Works according to DIN EN ISO 18125 : yes  
Works according to DIN EN 15170 : yes  
Works according to DIN EN 15400 : yes  
Works according to DIN CEN TS 14918 : yes  
Works according to DIN CEN/TS 16023 : yes  
Works according to DIN SPEC 19524 : yes  
Works according to ASTM D240 : yes  
Works according to ASTM D4809 : yes  
Works according to ASTM D5468 : yes  
Works according to ASTM D5865 : yes  
Works according to ISO 1928 : yes  
Works according to GB T213 : yes  
Works according to GOST Certified : yes  
Dimensions (W x H x D) : 500 x 425 x 450 mm  
Weight : 73.26 kg  
Permissible ambient temperature : 20 - 30 °C  
Permissible relative humidity : 80 %  
Protection class according to DIN EN 60529 : IP 20  
RS 232 interface : yes  
USB interface : USB-B  
Voltage : 220 - 240 V  
Frequency : 50/60 Hz  
Power input : 1700 W

**B. C 3000 isoperibol Package 1/10, Cat.No., 0010005030**



The IKA C 3000 isoperibol calorimeter is the technologically advanced successor of the IKA 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 oxygen filling and water handling 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.

#### **Scope of delivery**

- C 3000 measuring cell
- C 6010 decomposition vessel, standard
- RC 2 basic recirculation chiller
- Wear parts and consumables for up to 500 tests

#### **Technical Data**

- Measuring range max. : 40000 J
- 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) : 0.15 %RSD
- Reproducibility isoperibol (1g benzoic acid NBS39i) : 0.05 %RSD
- Touchscreen : yes
- Working temperature : 22 - 30 °C
- Temperature measurement resolution : 0.0001 K
- Cooling medium temperature : 12 - 27 °C
- Cooling medium permissible operating pressure : 1.5 bar
- Cooling medium : tap water
- Type of cooling : flow
- Chiller : RC 2 basic
- Flow rate : 60 - 70 l/h
- Rec. flow rate at 18°C : 60 l/h
- Oxygen operating pressure max. : 40 bar
- 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
- Works according to DIN 51900 : yes
- Works according to DIN EN ISO 1716 : yes
- Works according to DIN EN ISO 9831 :yes
- Works according to DIN EN ISO 18125 : yes
- Works according to DIN EN 15170 : yes
- Works according to DIN EN 15400 : yes
- Works according to DIN CEN TS 14918 : yes
- Works according to DIN CEN/TS 16023 : yes
- Works according to DIN SPEC 19524 : yes
- Works according to ASTM D240 : yes
- Works according to ASTM D4809 : yes
- Works according to ASTM D5468 : yes
- Works according to ASTM D5865 : yes
- Works according to ISO 1928 : yes
- Works according to GB T213 : yes
- Dimensions (W x H x D) : 500 x 425 x 450 mm
- Weight : 29 kg
- Permissible ambient temperature : 20 - 30 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 20
- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 220 - 240 V
- Frequency : 50/60 Hz
- Power input : 1700 W