

MIXING

A. MAGNETIC STIRRERS

1. Universal Mixing Drive



a. TWISTER SET 1 Cat.No., 0020027010

IKA TWISTER is a universal and compact mixing and twisting device with magnetic drive. In the IKA TWISTER SET 1, one drive is included. In the default version, IKA TWISTER is a powerful single-position magnetic stirrer for mixing up to 5 liters at a maximum speed of 3000 rpm and a viscosity of up to 500 mPas. By connecting additional IKA TWISTER stirring units (available as accessories, ID no. 0020112621), IKA TWISTER can be expanded to a multi-position magnetic stirrer with up to 30 stirring positions. The stirring positions can be controlled either separately or simultaneously (leader-follower principle).

Scope of delivery

- IKA TWISTER stirring unit
- Power supply
- IKAFLON® 25 Magnetic stirring bar

Technical Data

- Number of stirring positions : 1
- Stirring quantity min. per stirring position (H₂O) : 0.005 l
- Stirring quantity max. per stirring position (H₂O) : 5 L
- Maximum load : 7.5 kg
- Motor rating output : 5 W
- Direction of rotation : Right / Left
- Speed display set-value : LED
- Speed display actual-value : LED
- Speed adjustment : Touch key
- Speed range : 100 - 3000 rpm
- Setting accuracy speed : 100 rpm
- Stirring bar length : 10 - 30 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +6 K
- Set-up plate material : glass
- Set-up plate dimensions : 124 x 124 mm
- Automatic reverse rotation : yes
- Intermittent mode : 6sec - 30min
- Viscosity trend measurement : yes
- Speed deviation (no load, nominal voltage, at 1500rpm + 25 °C) : ±2 %
- Modular expandable stirring system (2-30 units) : yes

- Leader- follower operation (minimum 2 units required, leader unit controls synchronously follower unit) : yes
- Vessel detection (optional activated/deactivated) : yes
- Dimensions (W x H x D) : 135 x 24 x 135 mm
- Weight : 0.6 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 66
- USB interface : optional
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 10 W
- Power input standby : 2 W
- DC Voltage : 24 V=
- Current consumption = 400

b. TWISTER SET 2 Cat.No., 0020027388



Scope of delivery

- IKA TWISTER stirring unit (2 pcs.)
- Power supply
- IKAFLON® 25 Magnetic stirring bar (2 pcs.)

Technical Data

- Number of stirring positions 2
- Stirring quantity min. per stirring position (H₂O) : 0.005 l
- Stirring quantity max. per stirring position (H₂O) : 5 L
- Maximum load : 7.5 kg
- Motor rating output : 5 W
- Direction of rotation : Right / Left
- Speed display set-value : LED
- Speed display actual-value : LED
- Speed adjustment : Touch key
- Speed range : 100 - 3000 rpm
- Setting accuracy speed : 100 rpm
- Stirring bar length : 10 - 30 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +6 K
- Set-up plate material : glass
- Set-up plate dimensions : 124 x 124 mm
- Automatic reverse rotation : yes
- Intermittent mode : 6sec - 30min

- Viscosity trend measurement : yes
- Speed deviation (no load,nominal voltage, at 1500rpm + 25 °C) : ± 2 %
- Modular expandable stirring system (2-30 units) : yes
- Leader- follower operation (minimum 2 units required, leader unit controls synchronously follower unit) : yes
- Vessel detection (optional activated/deactivated) : yes
- Dimensions (W x H x D) : 135 x 24 x 135 mm
- Weight : 0.6 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 66
- USB interface : optional
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 10 W
- Power input standby : 2 W
- DC Voltage : 24 V=
- Current consumption = 400

2. With Heating, Temperature Control in The Medium and Advanced Features

a. Plate (RCT Digital) Magnetic Stirrer Cat.No., 0025004601



The IKA Plate (RCT digital) has a round top made of aluminum alloy. It stirs volumes of up to 20l (H₂O) and runs at speeds ranging from 50-1500rpm. Automatic switch-off of the magnetic stirrer if the connected external temperature sensor is not immersed in the medium. Function selectable, timeout time adjustable (Error 5).

Scope of delivery

- IKA Plate (RCT digital)
- PT 1000.60 Temperature sensor, stainless steel
- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar
- Screw driver
- USB A-B Cable

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 20 l
- Maximum load : 25 kg
- Motor rating output : 9 W
- Direction of rotation : right / left
- Speed display set-value : LCD

- Speed display actual-value : LCD
- Speed adjustment : Turning knob
- Speed range : 50 - 1500 rpm
- Setting accuracy speed : 10 rpm
- Stirring bar length : 20 - 80 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +17 K
- Heat output : 600 W
- Temperature display set-value : LCD
- Temperature display actual-value : LCD
- Temperature unit : °C / °F
- Heating temperature range : Room temp. + device self heating - 310 °C
- Heat control : Turning knob
- Temperature setting range : 0 - 310 °C
- Temperature setting resolution of heating plate : 1 K
- Connection for ext. temperature sensor : PT1000, ETS-D5, ETS-D6
- Temperature setting resolution of medium : 1 K
- Adjustable safety circuit : 50 - 370 °C
- Set-up plate material : Aluminium alloy
- Set-up plate dimensions : Ø 135 mm
- Automatic reverse rotation : yes
- Intermittent mode : yes
- Viscosity trend measurement : yes
- Timer : yes
- Timer display : LCD
- Time setting min. : 1 s
- Time setting max. : 143940 min
- Sensor in medium detection : yes
- Speed deviation (no load,nominal voltage, at 1500rpm + 25 °C) : ±2 %
- Heating rate (1l H₂O in H1500) : 6.5 K/min
- Heat control accuracy of heating plate (at 100°C) : ±5 K
- Heat control accuracy with ext. PT1000 (500ml H₂O in 600ml beaker,40mm stirring bar,600rpm,50°C) : ±0.5 K
- Heat control accuracy with ETS-D5 (500ml H₂O in 600ml beaker,40mm stirring bar,600rpm,50°C) : ±0.5 K
- Heat control accuracy with ETS-D6 (500ml H₂O in 600ml beaker,40mm stirring bar,600rpm,50°C) : ±0.2 K
- Dimensions (W x H x D) : 160 x 85 x 270 mm
- Weight : 2.4 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 42
- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 220 - 230 V

- Frequency : 50/60 Hz
- Power input : 650 W
- Power input standby : 1.6 W

b. RCT 5 Digital Magnetic Stirrer Cat.No., 0020002704



The new magnetic stirrer RCT 5 digital with 850 W offers significantly more power making it an ideal device for demanding stirring tasks up to 20 l. RCT 5 digital has a rectangular set-up plate with a white, ceramic coating. It is less scratch-prone than conventional magnetic stirrer plates.

Automatic switch-off of the heating function, if the connected external temperature sensor is not immersed in the medium. Function selectable, timeout time adjustable (Error 5).

Scope of delivery

- RCT 5 digital
- PT 1000.60 Temperature sensor, stainless steel
- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar
- Screw driver
- USB A-B Cable

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 20 l
- Maximum load : 25 kg
- Motor rating output : 9 W
- Direction of rotation : right / left
- Speed display set-value : LCD
- Speed display actual-value : LCD
- Speed adjustment : Turning knob
- Speed range : 50 - 1500 rpm
- Setting accuracy speed : 10 rpm
- Stirring bar length : 20 - 80 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +17 K
- Heat output : 850 W
- Temperature display set-value : LCD
- Temperature display actual-value : LCD
- Temperature unit : °C / °F
- Heating temperature range Room temp. + device self heating : - 310 °C
- Heat control : Turning knob
- Temperature setting range : 0 - 310 °C
- Temperature setting resolution of heating plate : 1 K

- Connection for ext. temperature sensor : PT1000, ETS-D5, ETS-D6
- Temperature setting resolution of medium : 1 K
- Adjustable safety circuit : 50 - 370 °C
- Set-up plate material : Aluminum with ceramic coating
- Set-up plate dimensions : 137 x 137 mm
- Automatic reverse rotation : yes
- Intermittent mode : yes
- Viscosity trend measurement : yes
- Timer : yes
- Timer display : LCD
- Time setting min = 1 s
- Time setting max = 143940 min
- Sensor in medium detection = yes
- Speed deviation (no load,nominal voltage, at 1500rpm + 25 °C) = ± 2 %
- Heating rate (1l H₂O in H1500) = 7.5 K/min
- Heat control accuracy of heating plate (at 100°C) = ± 5 K
- Heat control accuracy with ext. PT1000 (500ml H₂O in 600ml beaker,40mm stirring bar,600rpm,50°C) = ± 0.5 K
- Heat control accuracy with ETS-D5 (500ml H₂O in 600ml beaker,40mm stirring bar,600rpm,50°C) = ± 0.5 K
- Heat control accuracy with ETS-D6 (500ml H₂O in 600ml beaker,40mm stirring bar,600rpm,50°C)= ± 0.2 K
- Dimensions (W x H x D) = 160 x 85 x 270 mm
- Weight = 2.6 kg
- Permissible ambient temperature = 5 - 40 °C
- Permissible relative humidity = 80 %
- Protection class according to DIN EN 60529 = IP 42
- RS 232 interface = yes
- USB interface = USB-B
- Voltage = 220 - 230 V
- Frequency = 50/60 Hz
- Power input = 900 W
- Power input standby = 1.6 W

c. C-MAG HS 7 Control Magnetic Stirrer Cat.No., 0020002694



The IKA C-Mag HS 7 control has a square top made of ceramic. It stirs volumes of up to 20l (H₂O) and runs at speeds ranging from 50-1500rpm. Automatic switch-off of the heating function if the connected external temperature sensor is not immersed in the medium. Function selectable, timeout time adjustable (Error 5).

Scope of delivery

- C-MAG HS 7 control
- PT 1000.60 Temperature sensor, stainless steel
- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar
- Screw driver
- USB A-B Cable

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 20 l
- Maximum load : 25 kg
- Motor rating output : 9 W
- Direction of rotation : right / left
- Speed display set-value : LCD
- Speed display actual-value : LCD
- Speed adjustment : Turning knob
- Speed range : 50 - 1500 rpm
- Setting accuracy speed : 10 rpm
- Stirring bar length : 30 - 80 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +2 K
- Heat output : 1000 W
- Temperature display set-value : LCD
- Temperature display actual-value : LCD
- Temperature unit : °C
- Heating temperature range : room temp. - 500 °C
- Heat control : Turning knob
- Display resolution : 1 K
- Temperature setting range : 0 - 500 °C
- Temperature setting resolution of heating plate : 5 K
- Connection for ext. temperature sensor : PT1000, ETS-D5, ETS-D6
- Temperature setting resolution of medium : 1 K
- Adjustable safety circuit : 100 - 650 °C
- Set-up plate material : ceramic
- Set-up plate dimensions : 180 x 180 mm
- Automatic reverse rotation : yes
- Intermittent mode : yes
- Viscosity trend measurement : yes
- Timer : yes
- Timer display : LCD
- Time setting min. : 1 s
- Time setting max. : 143940 min
- Sensor in medium detection : yes
- Temperature measure range PT1000 : -10 - 350 °C
- Speed deviation (no load, nominal voltage, at 1500rpm + 25 °C) : ±2 %
- Heating rate (1l H₂O in H1500) : 5 K/min
- Heat control accuracy of heating plate (at 100°C) : ±5 K

- Heat control accuracy with ext. PT1000 (500ml H₂O in 600ml beaker, 40mm stirring bar, 600rpm, 50°C) : ± 0.5 K
- Heat control accuracy with ETS-D5 (500ml H₂O in 600ml beaker, 40mm stirring bar, 600rpm, 50°C) : ± 0.5 K
- Heat control accuracy with ETS-D6 (500ml H₂O in 600ml beaker, 40mm stirring bar, 600rpm, 50°C) : ± 0.2 K
- Dimensions (W x H x D) : 220 x 88 x 354 mm
- Weight : 4 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 220 - 230 V
- Frequency : 50/60 Hz
- Power input : 1020 W
- Power input standby : 2 W

3. With Heating and Temperature Control in The Medium

a. RCT Basic Magnetic Stirrer, Cat.No., 0025005927



RCT basic is suitable for stirring tasks up to 20 l (H₂O) and reaches a hotplate temperature of up to 310°C. With the connection option for an external temperature sensor (PT 1000.60 included in delivery), the temperature can be measured and controlled directly in the reaction medium.

Scope of delivery

- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar
- Screw driver
- PT 1000.60 Temperature sensor, stainless steel
- RCT basic

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 20 l
- Maximum load : 25 kg
- Motor rating output : 9 W
- Direction of rotation : right
- Speed display set-value : LED
- Speed display actual-value : LED
- Speed adjustment : Turning knob

- Speed range : 50 - 1500 rpm
- Setting accuracy speed : 10 rpm
- Stirring bar length : 20 - 80 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +17 K
- Heat output : 600 W
- Temperature display set-value : LED
- Temperature display actual-value : LED
- Temperature unit : °C
- Heating temperature range : Room temp. + device self heating - 310 °C
- Heat control : Turning knob
- Temperature setting range : 0 - 310 °C
- Temperature setting resolution of heating plate : 1 K
- Connection for ext. temperature sensor : PT1000, ETS-D5, ETS-D6
- Temperature setting resolution of medium : 1 K
- Adjustable safety circuit : 50 - 360 °C
- Set-up plate material : Aluminium alloy
- Set-up plate dimensions : Ø 135 mm
- Sensor in medium detection : yes
- Temperature measure range PT1000 : -20 - 310 °C
- Speed deviation (no load,nominal voltage, at 1500rpm + 25 °C) : ±2 %
- Heating rate (1l H₂O in H1500) : 6.5 K/min
- Heat control accuracy of heating plate (at 100°C) : ±5 K
- Heat control accuracy with ext. PT1000 (500ml H₂O in 600ml beaker,40mm stirring bar,600rpm,50°C) : ±1 K
- Heat control accuracy with ETS-D5 (500ml H₂O in 600ml beaker,40mm stirring bar,600rpm,50°C) : ±0.5 K
- Heat control accuracy with ETS-D6 (500ml H₂O in 600ml beaker,40mm stirring bar,600rpm,50°C) : ±0.2 K
- Dimensions (W x H x D) : 160 x 85 x 270 mm
- Weight : 2.4 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity 80 %
- Protection class according to DIN EN 60529 : IP 42
- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 220 - 230 V
- Frequency : 50/60 Hz
- Power input : 650 W
- Power input standby : 1.6 W

b. C-MAG HS 4 Digital Magnetic Stirrer, Cat.No., 0004240200



Magnetic stirrer with heating and ceramic heating plate which offers excellent chemical resistance. Powerful motor for stirring quantities of up to 5 l (H₂O). Simultaneous digital display of target and actual temperatures via LCD display.

Scope of delivery

- C-MAG HS 4 digital
- PT 1000.60 Temperature sensor, stainless steel
- IKAFLON® 20 Magnetic stirring bar
- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 5 l
- Maximum load : 7.5 kg
- Motor rating output : 1.5 W
- Direction of rotation : left
- Speed adjustment scale : 0 - 6
- Speed range : 100 - 1500 rpm
- Stirring bar length max. : 30 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +2K
- Heat output : 250 W
- Temperature display set-value : LCD
- Temperature display actual-value : LCD
- Heating temperature range : 50 - 500 °C
- Heat control : stepless
- Temperature setting resolution of heating plate : 5 K
- Connection for ext. temperature sensor : PT1000
- Fixed safety circuit : 550 °C
- Set-up plate material : ceramic
- Set-up plate dimensions : 100 x 100 mm
- Heating rate (1l H₂O in H1500) : 2.5 K/min
- Dimensions (W x H x D) : 150 x 105 x 260 mm
- Weight : 3.566 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Voltage : 230 V
- Frequency: 50/60 Hz
- Power input : 270 W

c. C-MAG HS 7 Digital Magnetic Stirrer, Cat.No., 0003487000



Magnetic stirrer with heating and ceramic heating plate which offers excellent chemical resistance. Powerful motor for stirring quantities of up to 10 l (H₂O). Simultaneous digital display of target and actual temperatures via LCD display.

Scope of delivery

- C-MAG HS 7 digital
- PT 1000.60 Temperature sensor, stainless steel
- IKAFLON® 20 Magnetic stirring bar
- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 10 l
- Maximum load : 15 kg
- Motor rating output : 1.5 W
- Direction of rotation : left
- Speed adjustment : scale 0 - 6
- Speed range : 100 - 1500 rpm
- Stirring bar length max. : 80 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +2 K
- Heat output : 1000 W
- Temperature display set-value : LCD
- Temperature display actual-value : LCD
- Heating temperature range : 50 - 500 °C
- Heat control : Turning knob
- Temperature setting resolution of heating plate : 5 K
- Connection for ext. temperature sensor : PT1000
- Fixed safety circuit : 550 °C
- Set-up plate material : ceramic
- Set-up plate dimensions : 180 x 180 mm
- Heating rate (1l H₂O in H1500) : 5 K/min
- Dimensions (W x H x D) : 215 x 105 x 330 mm
- Weight : 5 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 1020 W

d. C-MAG HS 10 Digital Magnetic Stirrer, Cat.No., 0004240400



Magnetic stirrer with heating and ceramic heating plate which offers excellent chemical resistance. Powerful motor for stirring quantities of up to

15 l (H₂O). Simultaneous digital display of target and actual temperatures via LCD display.

Scope of delivery

- C-MAG HS 10 digital
- PT 1000.60 Temperature sensor, stainless steel
- IKAFLON® 20 Magnetic stirring bar
- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 15 l
- Maximum load : 20 kg
- Motor rating output : 1.5 W
- Speed adjustment : scale 0 - 6
- Speed range : 100 - 1500 rpm
- Stirring bar length max. : 80 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +2 K
- Heat output : 1500 W
- Temperature display set-value : LCD
- Temperature display actual-value : LCD
- Heating temperature range : 50 - 500 °C
- Heat control : Turning knob
- Temperature setting resolution of heating plate : 5 K
- Connection for ext. temperature sensor : PT1000
- Fixed safety circuit : 550 °C
- Set-up plate material : ceramic
- Set-up plate dimensions : 260 x 260 mm
- Heating rate (1l H₂O in H1500) : 5 K/min
- Dimensions (W x H x D) : 300 x 105 x 415 mm
- Weight : 8.308 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 1520 W

4. With Heating and Optional Temperature Control in The Medium

a. C-MAG HS 7 Magnetic Stirrer, Cat.No., 0003581200



Magnetic stirrer with heating and ceramic heating plate which offers excellent chemical resistance. Powerful motor for stirring quantities of up to 10 l (H₂O).

Scope of delivery

- C-MAG HS 7
- IKAFLON® 20 Magnetic stirring bar
- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 10 l
- Maximum load : 15 kg
- Motor rating output : 1.5 W
- Direction of rotation : left
- Speed adjustment : scale 0 - 6
- Speed range : 100 - 1500 rpm
- Stirring bar length max. : 80 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h): +2K
- Heat output : 1000 W
- Temperature display set-value : LED
- Heating temperature range : 50 - 500 °C
- Heat control : Turning knob
- Temperature setting resolution of heating plate : 5 K
- Connection for ext. temperature sensor : ETS-D5
- Fixed safety circuit : 550 °C
- Set-up plate material : ceramic
- Set-up plate dimensions : 180 x 180 mm
- Heating rate (1l H₂O in H1500) : 5 K/min
- Dimensions (W x H x D) : 220 x 105 x 335 mm
- Weight : 5 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 1020 W

b. C-MAG HS 7 Package Magnetic Stirrer, Cat.No., 0009015900



Magnetic stirrer with ceramic heating plate. Bushing according to DIN 12878 for connecting a contact thermometer, e.g. ETS-D5.

Scope of delivery

- C-MAG HS 7
- ETS-D5
- H 16 V Support rod
- H 44 Boss head clamp
- H 38 Holding rod

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 10 l
- Maximum load : 15 kg
- Motor rating output : 1.5 W
- Direction of rotation : left
- Speed adjustment : scale 0 - 6
- Speed range : 100 - 1500 rpm
- Stirring bar length max. : 80 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h): +2K
- Heat output : 1000 W
- Temperature display set-value : LED
- Heating temperature range : 50 - 500 °C
- Heat control : Turning knob
- Temperature setting resolution of heating plate : 5 K
- Connection for ext. temperature sensor : ETS-D5
- Fixed safety circuit : 550 °C
- Set-up plate material : ceramic
- Set-up plate dimensions : 180 x 180 mm
- Heating rate (1l H₂O in H1500) : 5 K/min
- Dimensions (W x H x D) : 220 x 105 x 335 mm
- Weight : 5 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 1020 W

c. C-MAG HS 10 Magnetic Stirrer, Cat.No., 0003581400



Magnetic stirrer with heating and ceramic heating plate which offers excellent chemical resistance. Powerful motor for stirring quantities of up to 15 l (H₂O).

Scope of delivery

- C-MAG HS 10
- IKAFLON® 20 Magnetic stirring bar
- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 15 l
- Maximum load : 20 kg
- Motor rating output : 1.5 W
- Direction of rotation : left
- Speed adjustment : scale 0 - 6
- Speed range : 100 - 1500 rpm
- Stirring bar length max. : 80 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h): +2K
- Heat output : 1500 W
- Temperature display set-value : LED
- Heating temperature range : 50 - 500 °C
- Heat control : Turning knob
- Temperature setting resolution of heating plate : 5 K
- Connection for ext. temperature sensor : ETS-D5
- Fixed safety circuit : 550 °C
- Set-up plate material : ceramic
- Set-up plate dimensions : 260 x 260 mm
- Heating rate (1l H₂O in H1500) : 5 K/min
- Dimensions (W x H x D) : 300 x 105 x 415 mm
- Weight : 6 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 1520 W

5. With Heating

a. C-MAG HS 4 Magnetic Stirrer, Cat.No., 0003581000



Magnetic stirrer with heating and ceramic heating plate which offers excellent chemical resistance. Powerful motor for stirring quantities of up to 5 l (H₂O).

Scope of delivery

- C-MAG HS 4
- IKAFLON® 20 Magnetic stirring bar
- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 5 l
- Maximum load : 7.5 kg
- Motor rating output : 1.5 W
- Direction of rotation : left
- Speed adjustment : scale 0 - 6
- Speed range : 100 - 1500 rpm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +2 K
- Heat output : 250 W
- Temperature display set-value : LED
- Heating temperature range : 50 - 500 °C
- Heat control : Turning knob
- Temperature setting resolution of heating plate : 5 K
- Fixed safety circuit : 550 °C
- Set-up plate material : ceramic
- Set-up plate dimensions : 100 x 100 mm
- Heating rate (1l H₂O in H1500) : 2.5 K/min
- Dimensions (W x H x D) : 150 x 105 x 260 mm
- Weight : 3 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 270 W

b. RT 5 Magnetic Stirrer, Cat.No., 0003690600



5-position digital magnetic hotplate stirrer, designed for synchronous heating and stirring. The surface temperature is infinitely adjustable up to 120 °C.

Scope of delivery

- RT 5
- Silicone mat for protection and optimized temperature distribution

Technical Data

- Number of stirring positions : 5
- Stirring position distance : 90 mm
- Speed deviation of individual stirring positions : 0 %
- Stirring quantity max. per stirring position (H₂O) : 0.4 l
- Maximum load : 5 kg
- Speed adjustment : 10 RPM Steps
- Speed range : 0 - 1000 rpm
- Stirring bar length : 25 - 30 mm
- Heat output : 175 W
- Heating temperature range : room temp. - 120 °C
- Heat control : LED
- Adjustable safety circuit : 50 - 150 °C
- Set-up plate material : Aluminium alloy
- Set-up plate dimensions : 110 x 495 mm
- Heating rate (1l H₂O in H1500) : 3 K/min
- Dimensions (W x H x D) : 120 x 60 x 610 mm
- Weight : 4 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 40
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 185 W

c. RT 10 Magnetic Stirrer, Cat.No., 0003691100



10-position digital magnetic hotplate stirrer, designed for synchronous heating and stirring. The surface temperature is infinitely adjustable up to 120°C

Scope of delivery

- RT 10
- Silicone mat for protection and optimized temperature distribution

Technical Data

- Number of stirring positions : 10
- Stirring position distance : 90 mm
- Speed deviation of individual stirring positions : 0 %

- Stirring quantity max. per stirring position (H₂O) : 0.4 l
- Maximum load : 10 kg
- Speed adjustment : 10 RPM Steps
- Speed range : 0 - 1000 rpm
- Stirring bar length : 25 - 30 mm
- Heat output : 375 W
- Heating temperature range : room temp. - 120 °C
- Heat control : LED
- Adjustable safety circuit : 50 - 150 °C
- Set-up plate material : Aluminium alloy
- Set-up plate dimensions : 180 x 495 mm
- Heating rate (1l H₂O in H1500) : 3 K/min
- Dimensions (W x H x D) : 190 x 60 x 610 mm
- Weight : 7.5 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 40
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 395 W

d. RT 15 Magnetic Stirrer, Cat.No., 0003692600



15-position digital magnetic hotplate stirrer, designed for synchronous heating and stirring. The surface temperature is infinitely adjustable up to 120 °C.

Scope of delivery

- RT 15
- Silicone mat for protection and optimized temperature distribution

Technical Data

- Number of stirring positions : 15
- Stirring position distance : 90 mm
- Speed deviation of individual stirring positions : 0 %
- Stirring quantity max. per stirring position (H₂O) : 0.4 l
- Maximum load : 15 kg
- Speed adjustment : 10 RPM Steps
- Speed range : 0 - 1000 rpm
- Stirring bar length : 25 - 30 mm
- Heat output : 580 W
- Heating temperature range : room temp. - 120 °C
- Heat control : LED
- Adjustable safety circuit : 50 - 150 °C
- Set-up plate material : Aluminium alloy
- Set-up plate dimensions : 270 x 495 mm

- Heating rate (1l H₂O in H1500) : 3 K/min
- Dimensions (W x H x D) : 280 x 60 x 610 mm
- Weight : 10.5 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 40
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 600 W

6. Without Heating

a. C-MAG MS 4 Magnetic Stirrer, Cat.No., 0003582200



Magnetic stirrer without heating. With ceramic set-up plate which offers excellent chemical resistance. Powerful motor for stirring quantities of up to 5 l (H₂O), Speed range: 100 - 1500 rpm.

Scope of delivery

- C-MAG MS 4
- IKAFLON® 20 Magnetic stirring bar
- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 5 l
- Maximum load : 7.5 kg
- Motor rating output : 1.5 W
- Direction of rotation : left
- Speed adjustment : scale 0 - 6
- Speed range : 100 - 1500 rpm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +2 K
- Set-up plate material : ceramic
- Set-up plate dimensions : 100 x 100 mm
- Dimensions (W x H x D) : 150 x 105 x 260 mm
- Weight : 2.716 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 30 W

b. C-MAG MS 7 Magnetic Stirrer, Cat.No., 0003582400



Magnetic stirrer without heating. With ceramic set-up plate which offers excellent chemical resistance. Powerful motor for stirring quantities of up to 10 l (H₂O), Speed range: 100 - 1500 rpm.

Scope of delivery

- C-MAG MS 7
- IKAFLON® 20 Magnetic stirring bar
- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 10 l
- Maximum load : 15 kg
- Motor rating output : 1.5 W
- Direction of rotation : left
- Speed adjustment : scale 0 - 6
- Speed range : 100 - 1500 rpm
- Stirring bar length max. : 80 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +2 K
- Set-up plate material : ceramic
- Set-up plate dimensions : 180 x 180 mm
- Dimensions (W x H x D) : 220 x 105 x 335 mm
- Weight : 5 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 30 W

c. C-MAG MS 10 Magnetic Stirrer Cat.No., 0003582600



Magnetic stirrer without heating. With ceramic set-up plate which offers excellent chemical resistance. Powerful motor for stirring quantities of up to 15 l (H₂O), Speed range: 100 - 1500 rpm.

Scope of delivery

- C-MAG MS 10
- IKAFLON® 20 Magnetic stirring bar
- IKAFLON® 30 Magnetic stirring bar
- IKAFLON® 40 Magnetic stirring bar

Technical Data

- Number of stirring positions : 1
- Stirring quantity max. per stirring position (H₂O) : 15 l
- Maximum load : 20 kg
- Motor rating output : 1.5 W
- Direction of rotation : left
- Speed adjustment : scale 0 - 6
- Speed range : 100 - 1500 rpm
- Stirring bar length max. : 80 mm
- Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) : +2 K
- Set-up plate material : ceramic
- Set-up plate dimensions : 260 x 260 mm
- Dimensions (W x H x D) : 300 x 105 x 415 mm
- Weight : 6.665 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 30 W

B. OVERHEAD STIRRERS

1. Overhead Stirrers for Light Stirring Tasks

a. EUROSTAR 20 Digital, Cat.No., 0004442000



Laboratory stirrer designed for simple stirring tasks for quantities up to 15 l (H₂O). It automatically adjusts the speed through microprocessor controlled technology within the speed range of 0/30 - 2000 rpm.

Scope of delivery

- EUROSTAR 20 digital
- Chuck key

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 15 l
- Motor rating input : 70 W
- Motor rating output : 42 W
- Motor principle : Brushless DC
- Speed display : LED
- Speed range : 0/30 - 2000 rpm
- Viscosity max. : 10000 mPas
- Output max. at stirring shaft : 42 W

- Permissible ON time : 100 %
- Torque max. at stirring shaft : 20 Ncm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement $n > 300$ rpm : ± 1 %
- Deviation of speed measurement $n < 300$ rpm : ± 3 rpm
- Stirring element fastening : chuck
- Chuck range diameter : 0.5 - 10 mm
- Hollow shaft, inner diameter : 11 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 220 mm
- Speed control : electronic
- Nominal torque : 0.2 Nm
- Housing material : alu-cast coating / thermoplastic polymer
- Dimensions (W x H x D) : 86 x 248 x 208 mm
- Weight : 3.9 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 42
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 70 W

b. EUROSTAR 40 Digital, Cat.No., 0004444000



Laboratory stirrer designed for simple stirring tasks for quantities up to 25 l (H₂O). It automatically adjusts the speed through microprocessor controlled technology within the speed range of 0/30 - 2000 rpm.

Scope of delivery

- EUROSTAR 40 digital
- Chuck key

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 25 l
- Motor rating input : 118 W
- Motor rating output : 84 W
- Motor principle : Brushless DC
- Speed display : 7 segment LED

- Speed range : 0/30 - 2000 rpm
- Viscosity max. : 30000 mPas
- Output max. at stirring shaft : 84 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 40 Ncm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement $n > 300$ rpm : ± 1 %
- Deviation of speed measurement $n < 300$ rpm : ± 3 rpm
- Stirring element fastening : chuck
- Chuck range diameter : 0.5 - 10 mm
- Hollow shaft, inner diameter : 11 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 220 mm
- Speed control : electronic
- Nominal torque : 0.4 Nm
- Housing material : alu-cast coating / thermoplastic polymer
- Dimensions (W x H x D) : 86 x 248 x 208 mm
- Weight : 3.9 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 42
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 118 W

c. EUROSTAR 40 Digital Package Cat.No., 0010000762

Laboratory stirrer designed for simple stirring tasks for quantities up to 25 l (H₂O). It automatically adjusts the speed through microprocessor controlled technology within the speed range of 0/30 - 2000 rpm.

Scope of delivery

- EUROSTAR 40 digital
- R 1826 Plate stand
- R 182 Boss head clamp
- R 1342 Propeller stirrer, 4-bladed

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 25 l
- Motor rating input : 118 W
- Motor rating output : 84 W
- Motor principle : Brushless DC
- Speed display : 7 segment LED
- Speed range : 0/30 - 2000 rpm
- Viscosity max. : 30000 mPas

- Output max. at stirring shaft : 84 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 40 Ncm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement $n > 300$ rpm : ± 1 %
- Deviation of speed measurement $n < 300$ rpm : ± 3 rpm
- Stirring element fastening : chuck
- Chuck range diameter : 0.5 - 10 mm
- Hollow shaft, inner diameter : 11 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 220 mm
- Speed control : electronic
- Nominal torque : 0.4 Nm
- Housing material : alu-cast coating / thermoplastic polymer
- Dimensions (W x H x D) : 86 x 248 x 208 mm
- Weight : 3.9 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 42
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 118 W

d. EUROSTAR 60 Digital, Cat.No., 0004446000



Universally used strong laboratory stirrer for quantities up to 40 l (H₂O). It automatically adjusts the speed through microprocessor controlled technology within the speed range of 0/30 - 2000 rpm.

Scope of delivery

- EUROSTAR 60 digital
- Chuck key

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 40 l
- Motor rating input : 176 W
- Motor rating output : 126 W

- Motor principle : Brushless DC
- Speed display : 7 segment LED
- Speed range : 0/30 - 2000 rpm
- Viscosity max. : 50000 mPas
- Output max. at stirring shaft : 126 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 60 Ncm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement $n > 300\text{rpm}$: ± 1 %
- Deviation of speed measurement $n < 300\text{rpm}$: ± 3 rpm
- Stirring element fastening : chuck
- Chuck range diameter : 0.5 - 10 mm
- Hollow shaft, inner diameter : 11 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 220 mm
- Speed control : electronic
- Nominal torque : 0.6 Nm
- Housing material : alu-cast coating / thermoplastic polymer
- Dimensions (W x H x D) : 86 x 248 x 208 mm
- Weight : 3.9 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 42
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 176 W

e. EUROSTAR 60 Control, Cat.No., 0004440000



Universal laboratory stirrer designed with a removable wireless controller and a digital TFT display. It automatically adjusts the speed through microprocessor controlled technology within the speed range of 0/30 - 2000 rpm.

Scope of delivery

- EUROSTAR 60 control
- H 67.60 Temperature sensor, stainless steel
- WH11
- OS 1.0 WiCo power supply unit

- USB Cable - USB A to Micro-B, 2 m
- USB cable micro A – micro B 2.0
- Screw driver
- Protective cover for WiCo contact
- Chuck key

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 40 l
- Motor rating input : 168 W
- Motor rating output : 131 W
- Motor principle : Brushless DC
- Speed display : TFT
- Speed range : 0/30 - 2000 rpm
- Intermittent operation : yes
- Viscosity max. : 50000 mPas
- Output max. at stirring shaft : 126 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 60 Ncm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement $n > 300$ rpm : ± 1 %
- Deviation of speed measurement $n < 300$ rpm : ± 3 rpm
- Stirring element fastening : chuck
- Connection for ext. temperature sensor : PT1000
- Temperature display : yes
- Chuck range diameter : 0.5 - 10 mm
- Hollow shaft, inner diameter : 11 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 220 mm
- Torque display : yes
- Speed control : electronic
- Nominal torque : 0.6 Nm
- Torque measurement : trend
- Deviation of torque measurement I : ± 6 Ncm
- Timer : yes
- Timer display : TFT
- Time setting range : 1 - 6000 min
- Temperature measuring range : -10 - +350 °C
- Temperature measurement resolution : 0.1 K
- Accuracy of temperature measurement : ± 0.5 + tolerance PT1000 (DIN EN 60751 Class A) K
- Limit deviation temperature sensor : $\leq \pm (0.15 + 0.002 \times ITI)$ K

- Housing material : alu-cast coating / thermoplastic polymer
- Communication distance (depend on building) max. : 150 m
- Dimensions (W x H x D) : 86 x 267 x 230 mm
- Weight : 4.7 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 40
- RS 232 interface : yes
- USB interface : Micro-USB
- Voltage : 230 V
- Frequency: 50/60 Hz
- Power input : 176 W

f. RW 20 Digital, Cat.No., 0003593000



For stirring quantities of up to 20 l (H₂O). Two speed ranges for universal use from 60 - 2.000 rpm.

Scope of delivery

- RW 20 digital
- Chuck key

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 20 l
- Motor rating input : 70 W
- Motor rating output : 35 W
- Speed display : LED
- Speed range : 60 - 2000 rpm
- Viscosity max. : 10000 mPas
- Output max. at stirring shaft : 26 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 150 Ncm
- Torque max. at stirring shaft at 60 1/min (overload) : 300 Ncm
- Torque max. at stirring shaft at 100 rpm : 150 Ncm
- Torque max. at stirring shaft at 1000 rpm : 24 Ncm
- Speed range I (50 Hz) : 60 - 500 rpm
- Speed range II (50 Hz) : 240 - 2000 rpm
- Speed range I (60 Hz) : 72 - 600 rpm
- Speed range II (60 Hz) : 288 - 2400 rpm
- Speed adjustment : stepless

- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement : ± 30 rpm
- Stirring element fastening : chuck
- Chuck range diameter : 0.5 - 10 mm
- Hollow shaft, inner diameter : 10.5 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 13 mm
- Extension arm length : 160 mm
- Speed control : mechanical
- Nominal torque : 1.5 Nm
- Dimensions (W x H x D) : 88 x 294 x 212 mm
- Weight : 3.1 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 20
- Voltage : 220 - 240 V
- Frequency : 50/60 Hz
- Power input : 72 W

g. RW 20 Digital Package, Cat.No., 0009011600



For stirring quantities of up to 20 l (H₂O). Two speed ranges for universal use from 60 - 2.000 rpm.

Scope of delivery

- RW 20 digital
- R 1826 Plate stand
- R 182 Boss head clamp
- R 1342 Propeller stirrer, 4-bladed

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 20 l
- Motor rating input : 70 W
- Motor rating output : 35 W
- Speed display : LED
- Speed range : 60 - 2000 rpm
- Viscosity max. : 10000 mPas
- Output max. at stirring shaft : 26 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 150 Ncm
- Torque max. at stirring shaft at 60 1/min (overload) : 300 Ncm
- Torque max. at stirring shaft at 100 rpm : 150 Ncm
- Torque max. at stirring shaft at 1000 rpm : 24 Ncm

- Speed range I (50 Hz) : 60 - 500 rpm
- Speed range II (50 Hz) : 240 - 2000 rpm
- Speed range I (60 Hz) : 72 - 600 rpm
- Speed range II (60 Hz) : 288 - 2400 rpm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement : ± 30 rpm
- Stirring element fastening : chuck
- Chuck range diameter : 0.5 - 10 mm
- Hollow shaft, inner diameter : 10.5 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 13 mm
- Extension arm length : 160 mm
- Speed control : mechanical
- Nominal torque : 1.5 Nm
- Dimensions (W x H x D) : 88 x 294 x 212 mm
- Weight : 3.1 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 20
- Voltage : 220 - 240 V
- Frequency : 50/60 Hz
- Power input : 72 W

2. Powerful Overhead Stirrers for Universal Stirring Tasks

a. EUROSTAR 100 digital, Cat.No., 0004238100



Powerful laboratory stirrer for highly viscous applications and intensive mixing for quantities up to 100 l (H₂O). It automatically adjusts the speed through microprocessor controlled technology within the speed range of 0/30 – 1300 rpm.

Scope of delivery

- EUROSTAR 100 digital
- Chuck key

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 100 l
- Motor rating input : 186 W
- Motor rating output : 136 W

- Motor principle : Brushless DC
- Speed display : 7 segment LED
- Speed range : 0/30 - 1300 rpm
- Viscosity max. : 70000 mPas
- Output max. at stirring shaft : 136 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 100 Ncm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement $n > 300$ rpm : ± 1 %
- Deviation of speed measurement $n < 300$ rpm : ± 3 rpm
- Stirring element fastening : chuck
- Chuck range diameter : 0.5 - 10 mm
- Hollow shaft, inner diameter : 11 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 220 mm
- Speed control : electronic
- Nominal torque : 1 Nm
- Housing material : alu-cast coating / thermoplastic polymer
- Dimensions (W x H x D) : 86 x 248 x 208 mm
- Weight : 3.9 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 42
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 186 W

b. EUROSTAR 100 control, Cat.No., 0004028500



Powerful laboratory stirrer designed with a removable wireless controller and a digital TFT display. It automatically adjusts the speed through microprocessor controlled technology within the speed range of 0/30 - 1300 rpm for quantities up to 100 l (H₂O).

Scope of delivery

- EUROSTAR 100 control
- H 67.60 Temperature sensor, stainless steel
- WH11
- OS 1.0 WiCo power supply unit
- USB Cable - USB A to Micro-B, 2 m
- USB cable micro A – micro B 2.0
- Screw driver
- Protective cover for WiCo contact
- Chuck key

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 100 l
- Motor rating input : 174 W
- Motor rating output : 142 W
- Motor principle : Brushless DC
- Speed display : TFT
- Speed range : 0/30 - 1300 rpm
- Reversible direction of rotation : yes
- Intermittent operation : yes
- Viscosity max. : 70000 mPas
- Output max. at stirring shaft : 136 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 100 Ncm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement $n > 300$ rpm : ± 1 %
- Deviation of speed measurement $n < 300$ rpm : ± 3 rpm
- Stirring element fastening : chuck
- Connection for ext. temperature sensor : PT1000
- Temperature display : yes
- Chuck range diameter : 0.5 - 10 mm
- Hollow shaft, inner diameter : 11 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 220 mm
- Torque display : yes
- Speed control : electronic
- Nominal torque : 1 Nm
- Torque measurement : trend
- Deviation of torque measurement I : ± 6 Ncm
- Timer : yes
- Timer display : TFT
- Time setting range : 1 - 6000 min

- Temperature measuring range : -10 - +350 °C
- Temperature measurement resolution : 0.1 K
- Accuracy of temperature measurement : ± 0.5 + tolerance PT1000 (DIN EN 60751 Class A) K
- Limit deviation temperature sensor : $\leq \pm (0.15 + 0.002 \times |T|)$ K
- Housing material : alu-cast coating / thermoplastic polymer
- Dimensions (W x H x D) : 86 x 267 x 230 mm
- Weight : 4.7 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 40
- RS 232 interface : yes
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 186 W

c. EUROSTAR 200 digital, Cat.No., 0003990000



Extremely powerful laboratory stirrer for highly viscous applications and intensive mixing for quantities up to 100 l (H₂O). It automatically adjusts the speed through microprocessor controlled technology within the speed range of 0/6 – 2000 rpm (two speed ranges).

Scope of delivery

- EUROSTAR 200 digital
- Chuck key

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 100 l
- Motor rating input : 130 W
Motor rating output : 84 W
- Motor principle : Brushless DC
- Speed display : 7 segment LED
- Speed range : 0/6 - 2000 rpm
- Viscosity max. : 100000 mPas
- Output max. at stirring shaft : 84 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 200 Ncm
- Torque max. at stirring shaft : 200 Ncm

- Torque I max. : 200 Ncm
- Torque II max. : 40 Ncm
- Speed range I (50 Hz) : 6 - 400 rpm
- Speed range II (50 Hz) : 30 - 2000 rpm
- Speed range I (60 Hz) : 6 - 400 rpm
- Speed range II (60 Hz) : 30 - 2000 rpm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement $n > 300\text{rpm}$: ± 1 %
- Deviation of speed measurement $n < 300\text{rpm}$: ± 3 rpm
- Stirring element fastening : chuck
- Plug-in coupling ($\varnothing$) : 10 mm
- Chuck range diameter : 0.5 - 10 mm
- Hollow shaft, inner diameter : 10.3 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 220 mm
- Speed control : electronic
- Nominal torque : 2 Nm
- Housing material : alu-cast coating / thermoplastic polymer
- Dimensions (W x H x D) : 91 x 274 x 209 mm
- Weight : 4.6 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 42
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 130 W

d. EUROSTAR 200 control, Cat.No., 0003992000



Extremely powerful laboratory stirrer for highly viscous applications and intensive mixing for quantities up to 100 l (H₂O). It is designed with a removable wireless controller and a digital TFT display. It automatically adjusts the speed through microprocessor controlled technology within the speed range of 0/6 - 2000 rpm (two speed ranges).

Scope of delivery

- EUROSTAR 200 control
- H 67.60 Temperature sensor, stainless steel
- WH11
- OS 1.0 WiCo power supply unit
- USB Cable - USB A to Micro-B, 2 m
- USB cable micro A – micro B 2.0
- Screw driver
- Protective cover for WiCo contact
- Chuck key

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 100 l
- Motor rating input : 135 W
- Motor rating output : 84 W
- Motor principle : Brushless DC
- Speed display : TFT
- Speed range : 0/6- 2000 rpm
- Intermittent operation : yes
- Viscosity max. : 100000 mPas
- Output max. at stirring shaft : 84 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 200 Ncm
- Torque I max. : 200 Ncm
- Torque II max. : 40 Ncm
- Speed range I (50 Hz) : 6 - 400 rpm
- Speed range II (50 Hz) : 30 - 2000 rpm
- Speed range I (60 Hz) : 6 - 400 rpm
- Speed range II (60 Hz) : 30 - 2000 rpm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement $n > 300$ rpm : ± 1 %
- Deviation of speed measurement $n < 300$ rpm : ± 3 rpm
- Stirring element fastening : chuck
- Connection for ext. temperature sensor : PT1000
- Temperature display : yes
- Plug-in coupling ($\varnothing$) : 10 mm
- Chuck range diameter : 0.5 - 10 mm
- Hollow shaft, inner diameter : 10.3 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 220 mm
- Torque display : yes
- Speed control : electronic

- Nominal torque : 2 Nm
- Torque measurement : trend
- Deviation of torque measurement I : ± 20 Ncm
- Deviation of torque measurement II : ± 6 Ncm
- Timer : yes
- Timer display : TFT
- Time setting range : 1 - 6000 min
- Temperature measuring range : -10 - +350 °C
- Temperature measurement resolution : 0.1 K
- Accuracy of temperature measurement : ± 0.5 + tolerance PT1000 (DIN EN 60751 Class A) K
- Limit deviation temperature sensor : $\leq \pm (0.15 + 0.002 \times |T|)$ K
- Housing material : alu-cast coating / thermoplastic polymer
- Dimensions (W x H x D) : 91 x 297 x 231 mm
- Weight : 4.9 kg
- Permissible ambient temperature : 5 - 40 °C
- Protection class according to DIN EN 60529 : IP 40
- RS 232 interface : yes
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 130 W

3. Ultra High Torque Overhead Stirrers

a. RW 28 Digital, Cat.No., 0005040000



Powerful, mechanically controlled laboratory stirrer designed for highly viscous applications for quantities up to 80 l (H₂O). It is suitable for intensive mixing for use in laboratories and pilot plants.

Scope of delivery

- RW 28 digital
- Chuck key

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 80 l
- Motor rating input : 220 W
- Motor rating output : 90 W
- Speed display : LED
- Speed range : 60 - 1400 rpm
- Viscosity max. : 50000 mPas
- Output max. at stirring shaft : 90 W
- Permissible ON time : 100 %

- Torque max. at stirring shaft : 900 Ncm
- Torque max. at stirring shaft at 60 1/min (overload) : 1144 Ncm
- Torque max. at stirring shaft at 100 rpm : 900 Ncm
- Torque max. at stirring shaft at 1000 rpm : 86 Ncm
- Torque I max. : 900 Ncm
- Torque II max. : 300 Ncm
- Speed range I (50 Hz) : 60 - 400 rpm
- Speed range II (50 Hz) : 240 - 1400 rpm
- Speed range I (60 Hz) : 72 - 480 rpm
- Speed range II (60 Hz) : 288 - 1680 rpm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement : ± 10 rpm
- Stirring element fastening : chuck
- Chuck range diameter : 1 - 10 mm
- Hollow shaft, inner diameter : 10.5 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 145 mm
- Speed control : mechanical
- Nominal torque : 9 Nm
- Housing material : alu-cast coating / thermoplastic polymer
- Noise without element : 62.5 dB(A)
- Dimensions (W x H x D) : 123 x 364 x 252 mm
- Weight : 7.5 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 40
- Voltage : 220 - 240 V
- Frequency : 50/60 Hz
- Power input : 220 W

b. RW 28 Digital Package, Cat.No., 0009023200



Powerful, mechanically controlled laboratory stirrer designed for highly viscous applications for quantities up to 80 l (H₂O). It is suitable for intensive mixing for use in laboratories and pilot plants.

Scope of delivery

- RW 28 digital

- R 2723 Telescopic stand
- R 1385 Propeller stirrer
- R 271 Boss head clamp

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 80 l
- Motor rating input : 220 W
- Motor rating output : 90 W
- Speed display : LED
- Speed range : 60 - 1400 rpm
- Viscosity max. : 50000 mPas
- Output max. at stirring shaft : 90 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 900 Ncm
- Torque max. at stirring shaft at 60 1/min (overload) : 1144 Ncm
- Torque max. at stirring shaft at 100 rpm : 900 Ncm
- Torque max. at stirring shaft at 1000 rpm : 86 Ncm
- Torque I max. : 900 Ncm
- Torque II max. : 300 Ncm
- Speed range I (50 Hz) : 60 - 400 rpm
- Speed range II (50 Hz) : 240 - 1400 rpm
- Speed range I (60 Hz) : 72 - 480 rpm
- Speed range II (60 Hz) : 288 - 1680 rpm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement : ± 10 rpm
- Stirring element fastening : chuck
- Chuck range diameter : 1 - 10 mm
- Hollow shaft, inner diameter : 10.5 mm
- Hollow shaft (push-through - when stopped) : yes
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 145 mm
- Speed control : mechanical
- Nominal torque : 9 Nm
- Housing material : alu-cast coating / thermoplastic polymer
- Noise without element : 62.5 dB(A)
- Dimensions (W x H x D) : 123 x 364 x 252 mm
- Weight : 7.5 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 40
- Voltage : 220 - 240 V
- Frequency : 50/60 Hz
- Power input : 220 W

4. High Speed Overhead Stirrers

a. EUROSTAR 20 high speed digital, Cat.No., 0004028600



High speed laboratory stirrer designed for intensive stirring tasks for quantities up to 20 l (H₂O). It automatically adjusts the speed through microprocessor controlled technology within the speed range of 0/150 - 6000 rpm. The included precision shaft is 280 mm long and has a maximum immersion depth of 220 mm.

Scope of delivery

- EUROSTAR 20 high speed digital
- R 6000 precision shaft
- Open-end wrench
- Hook spanner

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 20 l
- Motor rating input : 176 W
- Motor rating output : 125 W
- Motor principle : Brushless DC
- Speed display : 7 segment LED
- Speed range : 0/150 - 6000 rpm
- Viscosity max. : 10000 mPas
- Output max. at stirring shaft : 125 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 20 Ncm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement $n > 300$ rpm : ± 1 %
- Deviation of speed measurement $n < 300$ rpm : ± 3 rpm
- Stirring element fastening : special output shaft
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 220 mm
- Speed control : electronic
- Nominal torque : 0.2 Nm
- Housing material : alu-cast coating / thermoplastic polymer
- Dimensions (W x H x D) : 86 x 325 x 208 mm
- Weight : 5.3 kg
- Permissible ambient temperature : 5 - 40 °C

- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 42
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 176 W

b. EUROSTAR 20 high speed control, Cat.No., 0025001314



High speed laboratory stirrer designed with a removable wireless controller and a digital TFT display. It automatically adjusts the speed through microprocessor controlled technology within the speed range of 0/150 - 6000 rpm.

Scope of delivery

- EUROSTAR 20 high speed control
- R 6000 precision shaft
- Open-end wrench
- Hook spanner
- H 67.60 Temperature sensor, stainless steel
- WH11
- OS 1.0 WiCo power supply unit
- USB Cable - USB A to Micro-B, 2 m
- USB cable micro A – micro B 2.0
- Screw driver
- Protective cover for WiCo contact

Technical Data

- Stirring quantity max. per stirring position (H₂O) : 20 l
- Motor rating input : 176 W
- Motor rating output : 125 W
- Motor principle : Brushless DC
- Speed display : TFT
- Speed range : 0/150 - 6000 rpm
- Intermittent operation : yes
- Viscosity max. : 10000 mPas
- Output max. at stirring shaft : 125 W
- Permissible ON time : 100 %
- Torque max. at stirring shaft : 20 Ncm
- Speed adjustment : stepless
- Setting accuracy speed : ± 1 rpm
- Deviation of speed measurement $n > 300$ rpm : ± 1 %
- Deviation of speed measurement $n < 300$ rpm : ± 3 rpm

- Stirring element fastening : special output shaft
- Connection for ext. temperature sensor : PT1000
- Temperature display : yes
- Fastening on stand : extension arm
- Extension arm diameter : 16 mm
- Extension arm length : 220 mm
- Torque display : yes
- Nominal torque : 0.2 Nm
- Torque measurement : trend
- Deviation of torque measurement I : ± 6 Ncm
- Timer : yes
- Timer display : TFT
- Time setting range : 1 - 6000 min
- Temperature measuring range : -10 - +350 °C
- Temperature measurement resolution : 0.1 K
- Accuracy of temperature measurement : ± 0.5 + tolerance PT1000 (DIN EN 60751 Class A) K
- Limit deviation temperature sensor : $\leq \pm (0.15 + 0.002 \times |T|)$ K
- Housing material : alu-cast coating / thermoplastic polymer
- Communication distance (depend on building) max. : 150 m
- Dimensions (W x H x D) : 86 x 325 x 230 mm
- Weight : 5.24 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 40
- RS 232 interface : yes
- USB interface : Micro-USB
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 176 W

C. SHAKERS

1. Vortex Shakers

a. Vortex 3, Cat.No., 0003340000



Vortex shaker suitable for short-time operation (touch function), activated by pressing shaker attachment or continuous operation. Different applications thanks to 3 interchangeable attachments and 7 inserts (e.g. tubes,

microtiter plates, Erlenmeyer flasks 250 ml etc.) Infinitely adjustable speed range: 500 - 2.500 rpm

Scope of delivery

- VORTEX 3
- VG 3.1 Standard attachment

Technical Data

- Type of movement : orbital
- Shaking stroke : 4 mm
- Permissible shaking weight (incl. attachment) : 0.4 kg
- Motor rating input : 58 W
- Motor rating output : 10 W
- Permissible ON time : 100 %
- Speed min (adjustable) : 500 rpm
- Speed range : 0 - 2500 rpm
- Speed display : none
- Operating mode : continuous operation
- Touch function : yes
- Working with microtiter plates : yes
- Number of microtiter plates : 1
- Dimensions (W x H x D) : 127 x 136 x 149 mm
- Weight : 4.5 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Voltage : 200 - 240 V
- Frequency : 50/60 Hz
- Power input : 60 W

b. Vortex 2, Cat.No., 0025000258



Vortex shaker suitable for touch operation or continuous operation. Various applications possible because of 3 interchangeable attachments and 7 inserts (e.g. tubes, microtiter plates, Erlenmeyer flasks 250 ml etc.), these need to be ordered separately.

Scope of delivery

- VORTEX 2
- VG 3.1 Standard attachment

Technical Data

- Type of movement : orbital
- Shaking stroke : 4 mm
- Permissible shaking weight (incl. attachment) : 0.4 kg
- Motor rating input : 39 W
- Motor rating output : 9 W
- Permissible ON time : 100 %
- Speed min (adjustable) : 500 rpm
- Speed max : 2500 rpm
- Speed display : scale
- Speed adjustment : scale 0 - 6
- Operating mode : continuous operation
- Touch function : yes
- Dimensions (W x H x D) : 120 x 140 x 138 mm
- Weight : 3.9 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Voltage : 200 - 240 V
- Frequency : 50/60 Hz
- Power input : 60 W

c. Vortex 1, Cat.No., 0003037700

Attractively designed test tube shaker with touch function. Designed for mixing small test samples. For small containers up to 30 mm in diameter, e.g. test tubes, centrifuge tubes, beakers. Infinitely adjustable speed from 1000 – 2800 rpm.

Technical Data

- Type of movement : orbital
- Shaking stroke : 4.5 mm
- Permissible shaking weight (incl. attachment) : 0.1 kg
- Motor rating input : 1.2 W
- Motor rating output : 0.8 W
- Permissible ON time : 100 %
- Speed min (adjustable) : 1000 rpm
- Speed max : 2800 rpm
- Speed display : none
- Timer display : none
- Touch function : yes
- Dimensions (W x H x D) : 95 x 70 x 110 mm
- Weight : 0.828 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %

- Protection class according to DIN EN 60529 : IP 40
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 30 W

2. Orbital Shakers

a. KS 130 basic, Cat.No., 0002980000



Small, quiet orbital shaker ensures long life with ideal swivel motion, for a maximum shaking weight of 2 kg.

Scope of delivery

- KS 130 basic
- Single-head wrench

Technical Data

Type of movement : orbital

Shaking stroke : 4 mm

Permissible shaking weight (incl. attachment) : 2.0 kg

Motor rating input : 45 W

Motor rating output : 10 W

Permissible ON time : 100 %

Speed min (adjustable) : 80 rpm

Speed range : 0 - 800 rpm

Speed display : LED line

Timer : yes

Timer display : LED line

Time setting range : 5 - 50 min

Operating mode : timer and continuous operation

Dimensions (W x H x D) : 270 x 98 x 316 mm

Weight : 8.8 kg

Permissible ambient temperature : 5 - 50 °C

Permissible relative humidity : 80 %

Protection class according to DIN EN 60529 : IP 21

Voltage : 220 - 240 V

Frequency : 50/60 Hz

Power input : 45 W

b. KS 130 control, Cat.No., 0002980100

The KS 130 control open air orbital shaker is a reliable and efficient solution for laboratory applications that require gentle mixing of samples. With a maximum shaking weight of 2.0 kg, it can handle a variety of vessel sizes and shapes. Variable speed range of 80-800 rpm, making it suitable for a wide range of applications.

Scope of delivery

- KS 130 control
- Attachment screws (4 pcs.)
- Single-head wrench

Technical Data

- Type of movement : orbital
- Shaking stroke : 4 mm
- Permissible shaking weight (incl. attachment) : 2.0 kg
- Motor rating input : 45 W
- Motor rating output : 10 W
- Permissible ON time : 100 %
- Speed min (adjustable) : 80 rpm
- Speed range : 0 - 800 rpm
- Speed display : LED
- Timer : yes
- Timer display : LED
- Time setting range : 1 - 5999 min
- Shaking table lock : yes
- Operating mode : timer and continuous operation
- Dimensions (W x H x D) : 270 x 98 x 316 mm
- Weight : 9.8 kg
- Permissible ambient temperature : 5 - 50 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- RS 232 interface : yes
- Analog output : yes
- Voltage : 220 - 240 V
- Frequency : 50/60 Hz
- Power input : 45 W
- Fuse : 2x T1A 250V

c. **KS 130 control NOL**, Cat.No., 0004278200



The KS 130 control NOL open air orbital shaker is a reliable and efficient solution for laboratory applications that require gentle mixing of samples. With a maximum shaking weight of 2.0 kg, it can handle a variety of vessel sizes and shapes. Variable speed range of 80-800 rpm, making it suitable for a wide range of applications.

Scope of delivery

- KS 130 control NOL
- Attachment screws (4 pcs.)
- Single-head wrench

Technical Data

- Type of movement : orbital
- Shaking stroke : 4 mm
- Permissible shaking weight (incl. attachment) : 2.0 kg
- Motor rating input : 45 W
- Motor rating output : 10 W
- Permissible ON time : 100 %
- Speed min (adjustable) : 80 rpm
- Speed range : 0 - 800 rpm
- Speed display : LED
- Timer : yes
- Timer display : LED
- Time setting range : 1 - 5999 min
- Operating mode : timer and continuous operation
- Dimensions (W x H x D) : 270 x 98 x 316 mm
- Weight : 9.8 kg
- Permissible ambient temperature : 5 - 50 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- RS 232 interface : yes
- Analog output : yes
- Voltage : 220 - 240 V
- Frequency : 50/60 Hz
- Power input : 45 W
- Fuse : 2x T1A 250V

d. KS 260 basic, Cat.No., 0002980200

Compact, flat orbital shaker with ideal swivel motion, for a maximum shaking weight of 7.5 kg.

Scope of delivery

- KS 260 basic
- Attachment screws (4 pcs.)
- Single-head wrench

Technical Data

- Type of movement : orbital
- Shaking stroke : 10 mm
- Permissible shaking weight (incl. attachment) : 7.5 kg

- Motor rating input : 45 W
- Motor rating output : 10 W
- Permissible ON time : 100 %
- Speed min (adjustable) : 50 rpm
- Speed range : 0 - 500 rpm
- Speed display : LED line
- Timer : yes
- Timer display : LED line
- Time setting range : 5 - 50 min
- Operating mode : timer and continuous operation
- Dimensions (W x H x D) : 360 x 98 x 420 mm
- Weight : 8.5 kg
- Permissible ambient temperature : 5 - 50 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- Analog output : yes
- Voltage : 220 - 240 V
- Frequency : 50/60 Hz
- Power input : 45 W

e. KS 260 control, Cat.No., 0002980300



The KS 260 control open air orbital shaker is a reliable and efficient solution for laboratory applications that require gentle mixing of samples. With a maximum shaking weight of 7.5 kg, it can handle a variety of vessel sizes and shapes. The shaker's integrated end point positioning function is highly useful for automated robot-controlled sampling. Variable speed range of 10-500 rpm, making it suitable for a wide range of applications.

Scope of delivery

- KS 260 control
- Attachment screws (4 pcs.)
- Single-head wrench

Technical Data

- Type of movement : orbital
- Shaking stroke : 10 mm
- Permissible shaking weight (incl. attachment) : 7.5 kg
- Motor rating input : 45 W
- Motor rating output : 10 W
- Permissible ON time : 100 %
- Speed min (adjustable) : 10 rpm
- Speed range : 0 - 500 rpm

- Speed display : LED
- Timer : yes
- Timer display : LED
- Time setting range : 1 - 5999 min
- Operating mode : timer and continuous operation
- Shaking table lock : yes
- Dimensions (W x H x D) : 360 x 98 x 420 mm
- Weight : 8.8 kg
- Permissible ambient temperature : 5 - 50 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- RS 232 interface : yes
- Analog output : yes
- Voltage : 220 - 240 V
- Frequency : 50/60 Hz
- Power input : 45 W
- Fuse 2x T1A 250V

f. KS 260 control NOL, Cat.No., 0004278400



The KS 260 control NOL open air orbital shaker is a reliable and efficient solution for laboratory applications that require gentle mixing of samples. With a maximum shaking weight of 7.5 kg, it can handle a variety of vessel sizes and shapes. Variable speed range of 10-500 rpm, making it suitable for a wide range of applications.

Scope of delivery

- KS 260 control NOL
- Attachment screws (4 pcs.)
- Single-head wrench

Technical Data

- Type of movement : orbital
- Shaking stroke : 10 mm
- Permissible shaking weight (incl. attachment) : 7.5 kg
- Motor rating input : 45 W
- Motor rating output : 10 W
- Permissible ON time : 100 %
- Speed min (adjustable) : 10 rpm
- Speed range : 0 - 500 rpm
- Speed display : LED
- Timer : yes
- Timer display : LED

- Time setting range : 1 - 5999 min
- Operating mode : timer and continuous operation
- Dimensions (W x H x D) : 360 x 98 x 420 mm
- Weight : 8.8 kg
- Permissible ambient temperature : 5 - 50 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- RS 232 interface : yes
- Analog output : yes
- Voltage : 220 - 240 V
- Frequency : 50/60 Hz
- Power input : 45 W
- Fuse 2x T1A 250V

g. KS 501 digital, Cat.No., 0025002985



Low profile laboratory orbital shaker with large mounting surface and load capacity of up to 15 kg. Infinitely variable speed control from 0-300 rpm. Ideal for vessels with a volume of more than 250 ml, e.g. round flasks, Erlenmeyer flasks, culture flasks and bottles.

Scope of delivery

- KS 501 digital
- USB A-B Cable

Technical Data

- Type of movement : orbital
- Shaking stroke : 30 mm
- Permissible shaking weight (incl. attachment) : 15 kg
- Motor rating input : 70 W
- Motor rating output : 19 W
- Permissible ON time : 100 %
- Speed range : 0 - 300 rpm
- Speed display : 7 segment LED
- Timer : yes
- Timer display : scale
- Time setting range : 1 - 55 min
- Operating mode : timer and continuous operation
- Dimensions (W x H x D) : 505 x 120 x 585 mm
- Weight : 26 kg
- Permissible ambient temperature : 5 - 50 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21

- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 74 W
- Fuse 2x T4A 250V

3. Incubation Shakers

a. KS 4000 i control, Cat.No., 0003510000



Innovative incubator shaker design allowing unattended operation in a temperature-controlled environment. Controls with antimicrobial coating for reduction of bacteria. Electronic timer switch: 0 - 999 h (set by the minute or by the hour). All functions can be controlled and documented with labworldsoft®.

Scope of delivery

- KS 4000 i control
- PT 1000.60 Temperature sensor, stainless steel
- Clamping screws short (4 pcs.)
- Clamping screws long (2 pcs.)
- Cable RS 232

Technical Data

- Type of movement : orbital
- Shaking stroke : 20 mm
- Permissible shaking weight (incl. attachment) : 20 kg
- Motor rating input : 82 W
- Motor rating output : 24 W
- Permissible ON time : 100 %
- Speed min (adjustable) : 10 rpm
- Speed range : 10 - 500 rpm
- Speed display : LED
- Speed deviation : ± 5 rpm
- Speed adjustment : 1 RPM steps
- Timer : yes
- Timer display : 7 segment LED
- Time setting range : 1 - 59940 min
- Operating mode : timer and continuous operation
- Heating temperature range : room temp. $+5^{\circ}$ - 80°C
- Heat output : 1000 W
- Set temperature resolution : ± 0.1 K
- Control accuracy with sensor (1 vessel 0.5 L H₂O, RT 22°C , T= 37°C : ± 0.5 K
- Temperature display : yes

- Temp. stability (0,2l H₂O; RT 25°C, T=37°C) : ±0.1 K
- Operating area inner chamber : 440 x 440 x 352 mm
- Total volume inner chamber : 90 l
- Raw material housing : Sheet metal powder coat
- Raw material front foil : polyester
- Temperature stability (1 vessel 0.5 L, RT 25°C, T=37°C) : ±0.05 K
- Temperature homogeneity (5 vessel 0.5 L; RT 25°C, T=37°C) : ±0.5 K
- Height with open hood : 875 mm
- Dimensions (W x H x D) : 580 x 520 x 750 mm
- Weight : 50 kg
- Permissible ambient temperature : 15 - 32 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 30
- RS 232 interface : yes
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 1120 W
- Fuse : 2x T10A 250V

b. KS 4000 ic control, Cat.No., 0003510100



Scope of delivery

- KS 4000 ic control
- PT 1000.60 Temperature sensor, stainless steel
- Clamping screws short (4 pcs.)
- Clamping screws long (2 pcs.)
- Cable RS 232

Technical Data

- Type of movement : orbital
- Shaking stroke : 20 mm
- Permissible shaking weight (incl. attachment) : 20 kg
- Motor rating input : 82 W
- Motor rating output : 24 W
- Permissible ON time : 100 %
- Speed min (adjustable) : 10 rpm
- Speed range : 10 - 500 rpm
- Speed display : LED
- Speed deviation : ±5 rpm
- Speed adjustment : 1 RPM steps
- Timer : yes
- Timer display : 7 segment LED

- Time setting range : 1 - 59940 min
- Operating mode : timer and continuous operation
- Heat output : 1000 W
- Set temperature resolution : ± 0.1 K
- Control accuracy with sensor (1 vessel 0.5 L H₂O, RT 22°C, T=37°C) : ± 0.5 K
- Temperature display : yes
- Temp. stability (0,2l H₂O; RT 25°C, T=37°C) : ± 0.1 K
- Temperature range (inlet T>3°C) : room temp. - 10° - 80° °C
- Operating area inner chamber : 440 x 440 x 352 mm
- Total volume inner chamber : 90 l
- Raw material housing : Sheet metal powder coat
- Raw material front foil : polyester
- Temperature stability (1 vessel 0.5 L, RT 25°C, T=37°C) : ± 0.05 K
- Temperature homogeneity (5 vessel 0.5 L; RT 25°C, T=37°C) : ± 0.5 K
- Height with open hood : 875 mm
- Dimensions (W x H x D) : 580 x 520 x 750 mm
- Weight : 55 kg
- Permissible ambient temperature : 15 - 32 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 30
- RS 232 interface : yes
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 1120 W
- Fuse : 2x T10A 250V

c. KS 3000 i control, Cat.No., 0003940000



Scope of delivery

- KS 3000 ic control
- PT 1000.80 Temperature sensor, stainless steel
- Clamping screws short (4 pcs.)
- USB A-B Cable

Technical Data

- Type of movement : orbital
- Shaking stroke : 20 mm
- Permissible shaking weight (incl. attachment) : 7.5 kg
- Motor rating input : 45 W
- Motor rating output : 10 W
- Permissible ON time : 100 %

- Speed min (adjustable) : 10 rpm
- Speed range : 10 - 500 rpm
- Speed display : LED
- Speed deviation : 1 %
- Speed adjustment : 1 RPM steps
- Timer : yes
- Timer display : 7 segment LED
- Time setting min. : 1 s
- Time setting range : 1 - 59940 min
- Operating mode : timer and continuous operation
- Heating temperature range : room temp. +5° - 80 °C
- Heat output : 1000 W
- Set temperature resolution : ± 0.1 K
- Control accuracy with sensor (1 vessel 0.5 L H₂O, RT 22°C, T=37°C) : ± 0.5 K
- Temperature display : yes
- Temp. stability (0,2l H₂O; RT 25°C, T=37°C) : ± 0.1 K
- Operating area inner chamber : 330 x 330 x 258 mm
- Total volume inner chamber : 50 l
- Raw material housing : Sheet metal powder coat
- Raw material hood : PMMA
- Raw material front foil : polyester
- Raw material front panel : ABS painted
- Temperature stability (1 vessel 0.5 L, RT 25°C, T=37°C) : ± 0.05 K
- Temperature homogeneity (5 vessel 0.5 L; RT 25°C, T=37°C) : ± 0.5 K
- Height with open hood : 875 mm
- Dimensions (W x H x D) : 465 x 430 x 695 mm
- Weight : 35 kg
- Permissible ambient temperature : 15 - 32 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 30
- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 1120 W

d. KS 3000 ic control, Cat.No., 0003940100



Scope of delivery

- KS 3000 ic control
- PT 1000.80 Temperature sensor, stainless steel

- Clamping screws short (4 pcs.)
- USB A-B Cable

Technical Data

- Type of movement : orbital
- Shaking stroke : 20 mm
- Permissible shaking weight (incl. attachment) : 7.5 kg
- Motor rating input : 45 W
- Motor rating output : 10 W
- Permissible ON time : 100 %
- Speed min (adjustable) : 10 rpm
- Speed range : 10 - 500 rpm
- Speed display : LED
- Speed deviation : 1 %
- Speed adjustment : 1 RPM steps
- Timer : yes
- Timer display : 7 segment LED
- Time setting min. : 1 s
- Time setting range : 1 - 59940 min
- Operating mode : timer and continuous operation
- Heat output : 1000 W
- Set temperature resolution : ± 0.1 K
- Control accuracy with sensor (1 vessel 0.5 L H₂O, RT 22°C, T=37°C : ± 0.5 K
- Temperature display : yes
- Temp. stability (0,2l H₂O; RT 25°C, T=37°C) : ± 0.1 K
- Temperature range (inlet T>3°C) room temp. : - 10° - 80° °C
- connections for external cooling : yes
- embedded cooling coil : yes
- Operating area inner chamber : 330 x 330 x 258 mm
- Total volume inner chamber : 50 l
- Raw material housing : Sheet metal powder coat
- Raw material hood : PMMA
- Raw material front foil : polyester
- Raw material front panel : ABS painted
- Temperature stability (1 vessel 0.5 L, RT 25°C, T=37°C) : ± 0.05 K
- Temperature homogeneity (5 vessel 0.5 L; RT 25°C, T=37°C) : ± 0.5 K
- Height with open hood : 875 mm
- Dimensions (W x H x D) : 465 x 430 x 695 mm
- Weight : 35 kg
- Permissible ambient temperature : 15 - 32 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 30
- RS 232 interface : yes
- USB interface : USB-B

- Voltage : 230 V
- Frequency : 50/60 Hz
- Power input : 1120 W

D. THERMOSHAVERS

1. Mixing

a. MATRIX Orbital, Cat.No., 0030000627



IKA Matrix Orbital mixes and is suitable for variable inserts. Whether its blood samples, pharmaceutical agents, DNA/RNA samples or ELISA assays – samples with even the smallest volumes mix reliably and completely in all laboratory applications. No cross-contamination and an optimal mixing result. Speeds of up to 3,000 rpm and shaker diameter of 3 mm ensure the liquid mixes quickly and effectively.

Scope of delivery

- MATRIX Orbital
- MX insert PCR96
- MX insert 0.5 ml
- MX insert 1.5/2.0 ml
- USB A-B Cable

Technical Data

- Type of movement : orbital
- Shaking stroke : 3 mm
- Maximum load : 0.3 kg
- Permissible ON time : 100 %
- Speed min (adjustable) : 300 rpm
- Speed range : 0 - 3000 rpm
- Speed display : TFT
- Speed deviation : ± 30 rpm
- Speed adjustment : 10 RPM Steps
- Timer : yes
- Timer display : TFT
- Time setting min. : 1 s
- Time setting max.: 6000 min
- Operating mode : timer and continuous operation
- Working with microtiter plates : yes
- Number of reaction vessels : 24x 0.5 ml / 24x 1.5 ml / 24x 2.0 ml
- Number of PCR plates : 1
- Number of Deep Well Plates (DWP) : 1
- Dimensions (W x H x D) : 200 x 120 x 320 mm
- Weight : 7.2 kg

- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 80 W
- Power input max. : 80 W
- Fuse : 2x T4A 250V

2. Mixing and Heating

a. **MATRIX Orbital Delta FP**, Cat.No., 0030000751



IKA Matrix Orbital Δ FP mixes, heats and has a universal holder for microtiter plates. Whether its blood samples, pharmaceutical agents, DNA/RNA samples or ELISA assays – samples with even the smallest volumes mix reliably and completely in all laboratory applications. No cross-contamination and an optimal mixing result. Speeds of up to 2,000 rpm and shaker diameter of 3 mm ensure the liquid mixes quickly and effectively.

Scope of delivery

- MATRIX Orbital Delta FP
- USB A-B Cable

Technical Data

- Type of movement : orbital
- Shaking stroke : 3 mm
- Maximum load : 0.3 kg
- Permissible ON time : 100 %
- Speed min (adjustable) : 300 rpm
- Speed range : 0 - 2000 rpm
- Speed display : TFT
- Speed deviation : ±30 rpm
- Speed adjustment : 10 RPM Steps
- Timer : yes
- Timer display : TFT
- Time setting min. : 1 s
- Time setting max.: 6000 min
- Operating mode : timer, continuous and program operation
- Working with microtiter plates : yes

- Number of microtiter plates : 1
- Heating temperature range : room temp. +4° - 100 °C
- Heat output : 100 W
- Heat control : TFT
- Set temperature resolution : ± 1 °C
- Temperature control accuracy : ± 1.0 (@ 20°C ... 45°C); ± 4.0 °C
- Temperature stability : 0.5 °C
- Temperature homogeneity : ± 0.5 (@ 20°C ... 45°C); ± 1.5 °C
- Heating rate : 18 °C/min
- Temperature display : yes
- Number of PCR plates : 1
- Number of Deep Well Plates (DWP) : 1
- Dimensions (W x H x D) : 216 x 147 x 351 mm
- Weight : 9.2 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 240 W
- Power input max. : 240 W
- Fuse : 2x T4A 250V

b. MATRIX Orbital Delta F0.5, Cat.No., 0030000747



The IKA MATRIX Orbital Δ F0.5 is part of a new and powerful product family of thermoshakers available. IKA MATRIX Orbital Δ F0.5 mixes and heats with a fixed insert for 24 x 0.5 ml tubes. Speeds of up to 2,000 rpm and shaker diameter of 3 mm ensure the liquid mixes quickly and effectively.

Scope of delivery

- MATRIX Orbital Delta F0.5
- USB A-B Cable

Technical Data

- Type of movement : orbital
- Shaking stroke : 3 mm
- Maximum load : 0.3 kg
- Permissible ON time : 100 %

- Speed min (adjustable) : 300 rpm
- Speed range : 0 - 2000 rpm
- Speed display : TFT
- Speed deviation : ± 30 rpm
- Speed adjustment : 10 RPM Steps
- Timer : yes
- Timer display : TFT
- Time setting min. : 1 s
- Time setting max. : 6000 min
- Operating mode : timer, continuous and program operation
- Heating temperature range : room temp. $+4^{\circ}$ - 100°C
- Heat output : 100 W
- Heat control : TFT
- Set temperature resolution : $\pm 1^{\circ}\text{C}$
- Temperature control accuracy : $\pm 0.5^{\circ}\text{C}$
- Temperature stability : 0.5°C
- Temperature homogeneity : ± 0.5 (@ 20°C ... 45°C); $\pm 1.5^{\circ}\text{C}$
- Heating rate : $15^{\circ}\text{C}/\text{min}$
- Temperature display : yes
- Number of reaction vessels : 24x 0.5 ml
- Dimensions (W x H x D) : 216 x 149 x 351 mm
- Weight : 9.2 kg
- Permissible ambient temperature : $5 - 40^{\circ}\text{C}$
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 240 W
- Power input max. : 240 W
- Fuse : 2x T4A 250V

c. MATRIX Orbital Delta F1.5, Cat.No., 0030000750



The IKA MATRIX Orbital Δ F1.5 with fixed attachment mixes and heats 24 x 1.5 ml microcentrifuge tubes / reaction vessels. It is compatible with 1.5 ml EPPENDORF TUBES®*. Speeds of up to 1,500 rpm and shaker diameter of 3 mm ensure the liquid mixes quickly and effectively.

Scope of delivery

- MATRIX Orbital Delta F1.5

- USB A-B Cable

Technical Data

- Type of movement : orbital
- Shaking stroke : 3 mm
- Maximum load : 0.3 kg
- Permissible ON time : 100 %
- Speed min (adjustable) : 300 rpm
- Speed range : 0 - 1500 rpm
- Speed display : TFT
- Speed deviation : ± 30 rpm
- Speed adjustment : 10 RPM Steps
- Timer : yes
- Timer display : TFT
- Time setting min. : 1 s
- Time setting max. : 6000 min
- Operating mode : timer, continuous and program operation
- Heating temperature range : room temp. $+4^{\circ}$ - 100°C
- Heat output : 100 W
- Heat control : TFT
- Set temperature resolution : $\pm 1^{\circ}\text{C}$
- Temperature control accuracy : $\pm 0.5^{\circ}\text{C}$
- Temperature stability : 0.5°C
- Temperature homogeneity : ± 0.5 (@ 20°C ... 45°C); $\pm 1.5^{\circ}\text{C}$
- Heating rate : $11^{\circ}\text{C}/\text{min}$
- Temperature display : yes
- Number of reaction vessels : 24x 1.5 ml
- Dimensions (W x H x D) : 216 x 158 x 351 mm
- Weight : 9.2 kg
- Permissible ambient temperature : $5 - 40^{\circ}\text{C}$
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 240 W
- Power input max. : 240 W
- Fuse : 2x T4A 250V

d. MATRIX Orbital Delta F2.0, Cat.No., 0030000753



IKA MATRIX Orbital Δ F2.0 mixes and heats with a fixed insert for 24 x 2.0 ml tubes. It is compatible with 1.5 ml EPPENDORF TUBES®*. Speeds of up to 1,500 rpm and shaker diameter of 3 mm ensure the liquid mixes quickly and effectively.

Scope of delivery

- MATRIX Orbital Delta F2.0
- USB A-B Cable

Technical Data

- Type of movement : orbital
- Shaking stroke : 3 mm
- Maximum load : 0.3 kg
- Permissible ON time : 100 %
- Speed min (adjustable) : 300 rpm
- Speed range : 0 - 1500 rpm
- Speed display : TFT
- Speed deviation : ± 30 rpm
- Speed adjustment : 10 RPM Steps
- Timer : yes
- Timer display : TFT
- Time setting min. : 1 s
- Time setting max. : 6000 min
- Operating mode : timer, continuous and program operation
- Heating temperature range : room temp. $+4^{\circ}$ - 100°C
- Heat output : 100 W
- Heat control : TFT
- Set temperature resolution : $\pm 1^{\circ}\text{C}$
- Temperature control accuracy : $\pm 0.5^{\circ}\text{C}$
- Temperature stability : 0.5°C
- Temperature homogeneity : ± 0.5 (@ 20°C ... 45°C); $\pm 1.5^{\circ}\text{C}$
- Heating rate : $13^{\circ}\text{C}/\text{min}$
- Temperature display : yes
- Number of reaction vessels : 24x 2.0 ml
- Dimensions (W x H x D) : 216 x 158 x 351 mm
- Weight : 9.2 kg
- Permissible ambient temperature : $5 - 40^{\circ}\text{C}$
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21

- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 240 W
- Power input max. : 240 W
- Fuse : 2x T4A 250V

3. Heating And Cooling

MATRIX Delta Plus, Cat.No., 0030000717



Matrix Delta plus heats and cools reliably with variable inserts. Whether blood samples, pharmaceutical agents, DNA/RNA samples or ELISA assays - reaction vials and plates with even the smallest volumes are reliably tempered in all laboratory applications. Reduced waiting time through fast heating and cooling rates of up to 5.5 °C/min (heating) or 2 °C/min (cooling, at set-point temperature between ambient temperature and 30 °C below ambient temperature). The device is ideally suited for numerous applications in laboratories, such as: Tempering of samples, Synthesis of cDNA, Enzyme-catalysed linking of RNA or DNA (ligation), Gentle thawing of sample material, Structural change of DNA, RNA and proteins (denaturation), ELISA assays.

Scope of delivery

- MATRIX Delta Plus
- USB A-B Cable

Technical Data

- Maximum load : 0.3 kg
- Permissible ON time : 100 %
- Timer : yes
- Timer display : TFT
- Time setting min. : 1 s
- Time setting max. : 6000 min
- Operating mode : timer, continuous and program operation
- Working with microtiter plates : yes
- Working temperature min. : room temp. -30 ±2 °C
- Temperature setting range min. : -10 °C
- Heating temperature max. : 110 °C
- Heat output : 100 W
- Heat control : TFT
- Set temperature resolution : ±1 °C
- Temperature control accuracy : ±0.5(@ 20°C ... 45°C) °C
- Temperature stability : 0.5 °C

- Temperature homogeneity : ± 0.5 (@ 20°C ... 45°C) °C
- Heating rate : 5.5 °C/min
- Temperature display : yes
- Cooling Rate : 2 °C/min
- Cooling Power : 72 W
- embedded cooling unit : yes
- Number of exchangeable attachments : 10
- Fixed safety circuit : 145 °C
- Dimensions (W x H x D) : 216 x 127 x 351 mm
- Weight : 9.5 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 230 W
- Fuse : 2x T4A 250V

4. **Mixing, Heating, Cooling**

MATRIX Orbital Delta Plus, Cat.No., 0030000731



MATRIX Orbital Delta plus comes with numerous user-friendly features such as Quick and effective mixing of liquids with up to 3,000 rpm and 3 mm shaker diameter, Reduced waiting time through fast heating and cooling rates of up to 6 °C/min (heating) or 2.5 °C/min at set-point temperature above the ambient temperature (cooling, 0.5 °C/min at set-point temperature between ambient temperature and 15 °C below ambient temperature). The device is ideally suited for numerous applications in laboratories, such as Tempering / mixing of samples, Synthesis of cDNA, Enzyme-catalysed linking of RNA or DNA (ligation), Lysis reactions and Structural change of DNA, RNA and proteins (denaturation).

Scope of delivery

- MATRIX Orbital Delta Plus
- USB A-B Cable

Technical Data

- Type of movement : orbital
- Shaking stroke : 3 mm
- Maximum load : 0.3 kg

- Motor rating output : 88 W
- Permissible ON time : 100 %
- Speed min (adjustable) : 300 rpm
- Speed range : 0 - 3000 rpm
- Speed display : TFT
- Speed deviation : ± 30 rpm
- Speed adjustment : 10 RPM Steps
- Timer : yes
- Timer display : TFT
- Time setting min. : 1 s
- Time setting max. : 6000 min
- Operating mode : timer, continuous and program operation
- Working with microtiter plates : yes
- Working temperature min. : room temp. -15 °C
- Temperature setting range min. : 1 °C
- Heating temperature max. : 100 °C
- Heat output : 100 W
- Heat control : TFT
- Set temperature resolution : ± 1 °C
- Temperature control accuracy : ± 0.5 (@ 20°C ... 45°C) °C
- Temperature stability : 0.5 °C
- Temperature homogeneity : ± 0.5 (@ 20°C ... 45°C) °C
- Heating rate : 6 °C/min
- Temperature display : yes
- Cooling Rate : 2.5 °C/min
- Cooling Power : 72 W
- Number of exchangeable attachments : 10
- Dimensions (W x H x D) : 216 x 127 x 351 mm
- Weight : 10 kg
- Permissible ambient temperature : 5 - 40 °C
- Permissible relative humidity : 80 %
- Protection class according to DIN EN 60529 : IP 21
- RS 232 interface : yes
- USB interface : USB-B
- Voltage : 100 - 240 V
- Frequency : 50/60 Hz
- Power input : 230 W
- Power input max. : 230 W
- Fuse : 2x T4A 250V