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RCT basic Synthesis Solution 500

/// Data Sheet

For safe synthesis in round-bottom flasks with 500 ml volume, there is our system solution RCT basic Synthesis Solution 500. The use of the synthesis blocks significantly reduces the hazard potential compared to the use of oil baths and simplifies handling and cleaning of the round bottom flasks. This also saves costs.

All components required for the operation of your synthesis are included:

- A flask carrier for round-bottom flasks with a volume of 500 ml
- a stand rod
- two boss head clamps



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- a universal clamp for secure mounting of the synthesis flasks
- a support rod for positioning the temperature sensor
- elliptical magnetic stirring bars that perfectly adapt to the shape of the round-bottom flask

The synthesis attachment, made of solid anodized aluminum, can withstand temperatures of up to 300 °C. Optionally, an additional stand rod can be used to securely attach a reflux condenser. The rod is simply attached to the second receptacle on the RCT basic.

Technical Data

Number of stirring positions	1
Stirring quantity max. per stirring position (H2O) [l]	20
Motor rating output [W]	9
Direction of rotation	right
Speed display set-value	LED
Speed display actual-value	LED
Speed adjustment	Turning knob
Speed range [rpm]	50 - 1500
Setting accuracy speed [rpm]	10
Stirring bar length [mm]	20 - 80
Self-heating of the set-up plate by max. stirring (RT:22°C/duration:1h) [K]	+13
Heat output [W]	600
Temperature display set-value	LED
Temperature display actual-value	LED
Temperature unit	°C
Heating temperature range [°C]	Room temp. + device self heating - 310
Heat control	Turning knob
Temperature setting range [°C]	0 - 310
Temperature setting resolution of heating plate [K]	1
Connection for ext. temperature sensor	PT1000, ETS-D5, ETS-D6
Heating rate medium [K/min]	6.5
Temperature setting resolution of medium [K]	1
Adjustable safety circuit [°C]	50 - 360
Set-up plate material	Aluminium alloy
Set-up plate dimensions [mm]	Ø 135
Sensor in medium detection (Error 5)	yes
Temperature measure range PT1000 [°C]	-20 - 310
Speed deviation (no load, nominal voltage, at 1500rpm + 25 °C) [%]	±2
Heating rate (1l H2O in H1500) [K/min]	6.5
Heat control accuracy of heating plate (at 100°C) [K]	±5
Heat control accuracy with ext. PT1000 (500ml H2O in 600ml beaker, 40mm stirring bar, 600rpm, 50°C) [K]	±1
Heat control accuracy with ETS-D5 (500ml H2O in 600ml beaker, 40mm stirring bar, 600rpm, 50°C) [K]	±0.5
Heat control accuracy with ETS-D6 (500ml H2O in 600ml beaker, 40mm stirring bar, 600rpm, 50°C) [K]	±0.2
Dimensions (W x H x D) [mm]	160 x 85 x 270
Weight [kg]	2.4
Permissible ambient temperature [°C]	5 - 40
Permissible relative humidity [%]	80
Protection class according to DIN EN 60529	IP 42
RS 232 interface	yes
USB interface	yes
Voltage [V]	220 - 230
Frequency [Hz]	50/60
Power input [W]	650
Power input standby [W]	1.6