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EUROSTAR 100c Hub Solution

/// Data Sheet

The new generation of EUROSTAR overhead stirrers combines modern design, user-friendliness and reliable performance. With up to 23% less space required compared to the previous models they fit perfectly into any laboratory.

EUROSTAR 100 control is a universal laboratory stirrer and the right solution for advanced mixing tasks up to 100 liters (H2O) and viscosities up to 70 000 mPas. Its maximum torque of 100 Ncm and linear adjustment to 60 Ncm at maximum speed guarantee reliable and powerful performance.

The EUROSTAR control models come with various advanced features, such as integrated temperature measurement,

reversible direction of rotation (left/right), interval mode and an integrated vibration sensor.

An integrated torque sensor offers high precision torque monitoring (+/- 1 Ncm accuracy). The torque measurement data can be used to calculate viscosity (mPas) based on user selected stirrer and vessel criteria providing important feedback on the mixing process. The desired stirring speed 30-2000rpm is always guaranteed even with changes to the torque demand or viscosity of the material.
ISO Class 7/8 Cleanroom Compliance allows for use in cleanroom environments in pharmaceutical, biotech, medical device, electronics, and aerospace labs, industries where particle control is critical.

Maximum safety and reliability
• User-friendly: Large TFT display shows all parameters at a glance.
• Quick Sense Keyless Chuck: allows the mixing tools to be changed with one hand, without additional tools
• Lock key: Prevents accidental changes to settings
• Safety Circuits: automatic safety shutoff from stirring impeller blockage or user specified torque limit
• Protection class IP 54: Resistant to splash water and steam for reliable use in demanding environments
• Brushless motor: Durable, clean and quiet in operation

Connectivity and documentation
• Program modes and graph display offer advanced control options
• More interfaces: USB, RS232, Ethernet, wireless and Wi-Fi connectivity offer enhanced possibilities for automation
• Compatible with labworldsoft® laboratory software for integration into digital workflows and documentation of processes

Feautures
• Viscosity measurement (mPas)
• High precision torque measurement +/- 1%
• Vibration sensor
• Integrated Light
• Left/Right rotation direction (interval mode)
• Speed: Soft start in 3 modes
• Chaotic Mixing Mode
• Lock ring indication (chuck)
• Temperature measurement
• Program mode
• Graph display
• TFT Display
• Wireless(WPAN), Ethernet & Wifi connection

Scope of delivery
•EUROSTAR 100 control
•R 2723 Telescopic stand

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- R 271 Boss head clamp
- R 1345
- RH 5 Strap clamp
- IKA HUB
- HUB-DS

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Technical Data

Stirring quantity max. per stirring position (H2O) [l]	100
Motor rating input [W]	174
Motor rating output [W]	142
Motor principle	Brushless DC
Speed display	TFT
Speed range [rpm]	0/30 - 2000
Reversible direction of rotation	yes
Intermittent operation	yes
Viscosity max. [mPas]	70000
Output max. at stirring shaft [W]	136
Permissible ON time [%]	100
Torque max. at stirring shaft [Ncm]	200
Short-term - Torque max at stirring shaft at 30-600 rpm / up to 20 min [Ncm]	200
Torque max. at stirring shaft at 600-1300 rpm [Ncm]	120-100
Torque max. at stirring shaft at 1300-2000 rpm [Ncm]	100-60
Speed adjustment	stepless
Setting accuracy speed [rpm]	±1
Deviation of speed measurement n > 300rpm [%]	±1
Deviation of speed measurement n < 300rpm [rpm]	±3
Stirring element fastening	chuck
Connection for ext. temperature sensor	PT1000
Temperature display	yes
Chuck range diameter [mm]	0.5 - 10
Hollow shaft, inner diameter [mm]	11
Hollow shaft (push-through - when stopped)	yes
Fastening on stand	extension arm
Extension arm diameter [mm]	16
Extension arm length [mm]	220
Torque display	yes
Speed control	electronic
Nominal torque [Nm]	1
Torque measurement	yes
Deviation of torque measurement l [Ncm]	±1
Timer	yes
Timer display	TFT
Time setting range [min]	1 - 6000
Temperature measuring range [°C]	-10 - 350
Temperature measurement resolution [K]	0.1
Accuracy of temperature measurement [K]	±0.5 + tolerance PT1000 (DIN EN 60751 Class A)
Limit deviation temperature sensor [K]	≤ ± (0.15 + 0.002xITI)
Housing material	alu-cast coating / thermoplastic polymer
Clean room qualified	yes
ISO Cleanroom Class (900rpm)	Class 7
ISO Cleanroom Class (1800rpm)	Class 8
Dimensions (W x H x D) [mm]	89 x 237 x 191
Weight [kg]	3.9
Permissible ambient temperature [°C]	5 - 40
Permissible relative humidity [%]	80

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Protection class according to DIN EN 60529	IP 54
RS 232 interface	yes
USB interface	USB-C
WPAN interface	yes
WiFi Interface	yes
Ethernet interface	yes
Voltage [V]	100 - 240
Frequency [Hz]	50/60
Power input [W]	186
Batteries included with the product?	yes
Battery Cell Type	BR2032/BN
Number of Batteries	1
Battery Weight [g]	3
How is the Battery packaged	within appliance
Battery capacity [mAh]	200
Battery Voltage [V]	3