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## EUROSTAR 20 high speed digital

/// 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 20 high speed digital is the right solution for mixing tasks requiring high speed up to 6000rpm, volumes up to 20 liters (H<sub>2</sub>O) and viscosities up to 10 000mPas. Its maximum torque of 40 Ncm and linear adjustment to 20 Ncm at maximum speed guarantee reliable and powerful performance.

The innovative torque trend measurement shows the viscosity trend of the sample (+/- 6 Ncm accuracy). The torque



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trend is shown directly on the display and provides important feedback on the mixing process. The desired stirring speed 150-6000rpm is always guaranteed even with changes to the torque demand or viscosity of the material.

#### Maximum safety and reliability

- User-friendly: Large LCD display shows all parameters at a glance
- 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

- USB and RS232 interfaces
- Compatible with Labworldsoft® laboratory software for integration into digital workflows and documentation of processes

#### Features

- 23% smaller size than previous models
- Torque Trend Measurement
- Cleanroom ISO 7/8 Classification
- IP 54
- Timer/Counter function
- LCD Display
- USB Interface
- RS 232

#### Scope of delivery

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



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## Technical Data

|                                                                     |                                          |
|---------------------------------------------------------------------|------------------------------------------|
| Stirring quantity max. per stirring position (H <sub>2</sub> O) [l] | 20                                       |
| Motor rating input [W]                                              | 176                                      |
| Motor rating output [W]                                             | 125                                      |
| Motor principle                                                     | Brushless DC                             |
| Speed display                                                       | LCD                                      |
| Speed range [rpm]                                                   | 0/150 - 6000                             |
| Viscosity max. [mPas]                                               | 10000                                    |
| Output max. at stirring shaft [W]                                   | 125                                      |
| Permissible ON time [%]                                             | 100                                      |
| Torque max. at stirring shaft [Ncm]                                 | 40                                       |
| Torque max. at stirring shaft at 150-600 rpm [Ncm]                  | 40                                       |
| Torque max. at stirring shaft at 600-6000 rpm [Ncm]                 | 40-20                                    |
| 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                                    |
| 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]                                                 | 0.2                                      |
| Torque measurement                                                  | trend                                    |
| Deviation of torque measurement I [Ncm]                             | ±6                                       |
| Timer                                                               | yes                                      |
| Timer display                                                       | LCD                                      |
| Time setting range [min]                                            | 1 - 6000                                 |
| Housing material                                                    | alu-cast coating / thermoplastic polymer |
| Dimensions (W x H x D) [mm]                                         | 89 x 306 x 191                           |
| Weight [kg]                                                         | 5.2                                      |
| Permissible ambient temperature [°C]                                | 5 - 40                                   |
| Permissible relative humidity [%]                                   | 80                                       |
| Protection class according to DIN EN 60529                          | IP 54                                    |
| RS 232 interface                                                    | yes                                      |
| USB interface                                                       | USB-C                                    |
| Voltage [V]                                                         | 100 - 240                                |
| Frequency [Hz]                                                      | 50/60                                    |
| Power input [W]                                                     | 176                                      |