

## Data Sheet

Mixing / Overhead Stirrers



### EUROSTAR 60 control

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. The stirrer comes equipped with a RS 232 and a USB interface to control and document all parameters. An integrated torque trend display is provided for the measurement of viscosity changes. Safety circuits installed ensures automatic cut-off in an anti-stall or overload conditions. Continuous comparison of shaft speed to desired speed is maintained and variations are adjusted automatically. This guarantees a constant speed even with changes in viscosities of the sample.

- Multilingual TFT display
- Programmable functions
- Integrated temperature measurement
- Interval operation
- Timer function
- Adjustable safety circuit
- Locked function
- Infinitely adjustable speed
- Push-through agitator shafts
- Overload protection
- Short-term overload operation
- Slim casing
- Quiet operation
- Error code display
- H 67.60 temperature sensor and WH 11 WiCo holder included in delivery

Accessories: R 1342 Propeller stirrer, 4-bladed, R 1345 Propeller stirrer, 4-bladed, R 1381 Propeller stirrer, 3-bladed, R 1382 Propeller stirrer, 3-bladed, R 1385 Propeller stirrer, 3-bladed, R 1388 Propeller stirrer, 3-bladed, R 1389 (PTFE-coated) Propeller stirrer, 3-bladed, R 1311 Turbine stirrer, R 1312 Turbine stirrer, R 1313 Turbine stirrer, R 1300 Dissolver stirrer, R 1302 Dissolver stirrer, R 1303 Dissolver stirrer, R 1352 Centrifugal stirrer, R 1355 Centrifugal stirrer, R 1375 Paddle stirrer, R 1330 Anchor stirrer, R 1331 Anchor stirrer, R 3000.1 Moebius stirrer, R 3001.1 Moebius stirrer, R 3003 Spiral stirrer, R 3003.1 Spiral stirrer, R 3003.2 Spiral stirrer, R 3004 Blade stirrer, R 3004.1 Blade stirrer, R 3004.2 Blade stirrer, H 66.53 Temperature sensor, coated, H 62.51 Stainless steel sensor, H 66.51 Stainless steel sensor, glass-coated, H 70 Extension cable, H 67.60 Temperature sensor, stainless steel, H 67.61 Temperature sensor, stainless steel, H 68.55 Temperature sensor, stainless steel, FK 1 Flexible coupling, R 60 Keyless chuck, R 301 Stirring shaft protection, R 270 Boss head clamp, R 271 Boss head clamp, RH 5 Strap clamp, R 2722 H-Stand, R 2723 Telescopic stand, labworldsoft®, BC 1000 Beaker cap

#### Technical Data

Stirring quantity max. per stirring position (H <sub>2</sub> O) [l]	40
Motor rating input [W]	168
Motor rating output [W]	131
Motor principle	Brushless DC
Speed display	TFT
Speed range [rpm]	0/30 - 2000
Reversible direction of rotation	no
Intermittent operation	yes

Viscosity max. [mPas]	50000
Output max. at stirring shaft [W]	126
Permissible ON time [%]	100
Torque max. at stirring shaft [Ncm]	60
Speed control	stepless
Setting accuracy speed [ $\pm$ rpm]	1
Deviation of speed measurement $n > 300$ rpm [ $\pm$ %]	1
Deviation of speed measurement $n < 300$ rpm [ $\pm$ rpm]	3
Stirring element fastening	chuck
Connection for ext. temperature sensor	PT1000
Temperature display	yes
Chuck range min. diameter [mm]	0.5
Chuck range max. diameter [mm]	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
Nominal torque [Nm]	0.6
Torque measurement	trend
deviation of torque measurement I [ $\pm$ Ncm]	6
Timer	yes
Timer display	TFT
Time setting range [min]	1 - 6000
Temperature measuring range min. [ $^{\circ}$ C]	-10
Temperature measuring range max. [ $^{\circ}$ C]	+350
Temperature measurement resolution [K]	0.1
Accuracy of temperature measurement [K]	$\pm 0.5 + \text{tolerance PT1000 (DIN IEC 751 Class A)}$
Limit deviation temperature sensor [K]	$\leq \pm (0.15 + 0.002 \times ITI)$
housing material	alu-cast coating / thermoplastic polymer
clean room qualified	no
explosion proofed	no
communication distance (depend on building) max. [m]	150
Dimensions (W x H x D) [mm]	86 x 267 x 230
Weight [kg]	4.7
Permissible ambient temperature [ $^{\circ}$ C]	5 - 40
Permissible relative humidity [%]	80
Protection class according to DIN EN 60529	IP 40
USB interface	yes
RS 232 interface	yes
Analog output	no
Voltage [V]	230 / 115 / 100
Frequency [Hz]	50/60
Power input [W]	176
<b>Ident. No.</b>	<b>0004440000</b>