

Laboratory Small Digital High Power Stirrer

Item Number: ZB05



Introduction

Laboratory small digital high power stirrer with LCD speed display, precise control, wide viscosity capacity, programmable timing, overload protection, and universal voltage for dependable mixing in battery, materials, pharmaceutical, polymer, and academic research applications.

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Application	Description	Key Benefit
Battery Slurry Preparation	Mix active materials, conductive additives, binders, and solvents before electrode coating or other cell fabrication steps.	Controlled speed, torque, and timing improve slurry uniformity and help support repeatable electrode preparation.
Advanced Materials Research	Prepare ceramic, composite, nanomaterial, and functional-material formulations for laboratory evaluation.	High-speed adjustment and high-viscosity capability accommodate changing material properties during development.
Polymer and Resin Formulation	Blend polymers, resins, additives, pigments, and modifiers for formulation screening and performance testing.	Strong torque capacity supports viscous materials while digital monitoring improves process repeatability.
Pharmaceutical and Biomedical Development	Mix laboratory-scale suspensions, gels, excipient systems, and other viscosity-sensitive research formulations.	Programmable timing and controlled operation help standardize development batches and reduce operator variation.
Coatings, Inks, and Adhesives	Disperse solids and blend liquid or paste-based formulations used in coatings, printing inks, sealants, and adhesives.	Wide speed range enables both high-speed dispersion and slower finishing or homogenization stages.
Powder Metallurgy and Ceramics	Prepare binders, ceramic suspensions, powders, and processing aids for forming and materials characterization.	Multiple capacity options support development quantities while the compact design conserves bench space.
Academic and Teaching Laboratories	Demonstrate mixing behavior, viscosity effects, formulation methods, and process control in chemistry and materials courses.	Simple digital feedback, safety stopping functions, and broad operating conditions support practical instruction.

Parameter	ZB05-20L	ZB05-40L	ZB05-60L
Maximum mixing quantity (L)	20	40	60
Speed range (RPM)	30-2200	30-2200	30-2200
Speed display	LCD	LCD	LCD
Timer range (min)	1~9999	1~9999	1~9999
Maximum torque (N.cm)	40	60	80
Maximum viscosity (Pa.s)	10000	50000	80000
Chuck clamping diameter range (mm)	0.5-10	0.5-10	0.5-10
Weight (kg)	2.6	2.8	3
Motor input power (W)	60	120	160
Motor output power (W)	50	100	150
Speed display resolution (RPM)	±1	±1	±1
Overall dimensions DWH (mm)	18683220	18683220	18683220
Protection rating	IP42	IP42	IP42

Parameter	ZB05-20L	ZB05-40L	ZB05-60L
Permitted ambient temperature (°C)	5-40	5-40	5-40
Permitted ambient humidity (%)	80	80	80
Voltage (VAC)	100-240	100-240	100-240
Frequency (Hz)	50/60	50/60	50/60
Motor protection	Fault displayed, automatic stop	Fault displayed, automatic stop	Fault displayed, automatic stop
Overload protection	Fault displayed, automatic stop	Fault displayed, automatic stop	Fault displayed, automatic stop
Safety protection	Chuck protection sleeve and anti-slip pad	Chuck protection sleeve and anti-slip pad	Chuck protection sleeve and anti-slip pad
Speed adjustment method	Coarse and fine adjustment	Coarse and fine adjustment	Coarse and fine adjustment
Mixing shaft retention method	Self-locking chuck	Self-locking chuck	Self-locking chuck