

YK-8231BR

Desktop High-Speed Large-Capacity Freezing Centrifuge

This instrument features an extraordinary experimental throughput of up to 4×750 mL, making it an ideal choice for high-throughput applications. It enables rapid and efficient cryo-centrifugation operations, providing significant convenience for fields such as biochemistry, healthcare, food safety, life sciences, agricultural and forestry sciences, and blood banks.



Characteristic :

- 1、 The all-new XIUI3.0 operating system features microcomputer control and programmable operation, with direct drive from a variable-frequency brushless motor for precise speed regulation.
- 2、 A 7-inch wide-view LCD touchscreen with digital input for simple operation, featuring real-time interface display of settings and operational parameters. The all-steel casing with anti-corrosion orange-peel texture and full-bodied lines embodies an industrial human-machine integrated design that combines visual aesthetics with safety, ensuring high recognition accuracy.
- 3、 The system employs imported non-fluorine refrigeration compressor units (refrigerant R404a), which comply with environmental protection standards. It features pre-cooling functionality and a wide temperature control range of -20°C to +40°C, enabling rapid attainment of set temperatures. The chamber is internally equipped with nationally standardized copper tubes, ensuring robust heat exchange capacity and consistent temperature in centrifugal operation.
- 4、 The system features multiple audio-visual alarm protections including overspeed, overheating, imbalance, misoperation, overcurrent/overvoltage, and anti-hand pinch. Its fluorosilicone rubber seals, resistant to hydrogen, oil, acids and alkalis, ensure long-term operation across -55°C to +200°C. The aesthetically compact thermoformed door panel provides



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dual containment against aerosol leakage. The design incorporates a 304 stainless steel corrosion-resistant centrifugal chamber with seamless integration, reinforced by steel cylinder sleeves and optimized sound-absorbing ductwork.

5、 The door cover is equipped with an electronic lock and electric support rod, enabling automatic one-touch operation for smoother and more stable door opening and closing. In the event of machine shutdown or power failure, the door cover can be manually opened by connecting to the battery. The patented anti-pinch design prevents accidental finger injury during hasty operation.

6、 Optional Bluetooth and Type-C ports enable remote control via mini-programs, facilitating system upgrades and experimental data downloads.

7、 10-speed acceleration/deceleration; three-stage damping shock absorption ensures stable operation of samples without re-suspension; capable of storing 99 program sets; programmable for spot, timed, differential time, density, and gradient centrifugation to meet diverse experimental requirements.

8、 The concealed condensate drainage system allows effortless removal of condensate with a simple squeeze, preventing motor failures caused by condensate and extending the centrifuge's service life.

9、 Optional rotor auto-identification feature automatically loads and locks rotor parameters. Parameters can be modified during operation without stopping, and current parameters are automatically saved.

10、 Multi-specification aviation forged aluminum rotors (limited to angular rotors) and various polyamide fiber adapters are available, suitable for centrifuge tubes or reagent bottles ranging from 0.2mL to 750 mL; capable of centrifuging various MTP microplates, PCR plates, cell culture plates, and deep-well plates.

11、 Patents held: Yuke Network Intelligent Control System (Soft Copyright Registration No.9873780); Desktop Centrifuge (ZL 2021 3 0605592.0); Centrifuge (ZL 2018 3030691.0); Instrument Door Cover Anti-Hand Pinching and Object Protection Device (ZL 2022 2 0790897.2);

12、 Has obtained ISO9001:2015 certification; ISO13485:2016 certification; and holds CFDA filing and production qualifications.

Host technical parameters

Product model	YK-8231BR
Max. cap	4×750mL
Maximum speed	20800r/min
Maximum relative centrifugal force	31150×g
Speed accuracy	±20 r/min (customizable in 10 increments)
Control and drive system	Microcomputer Control, Maintenance Free, High Torque DC Brushless Variable Frequency Motor
Display mode	7-inch wide-angle LCD touch screen
Mode of operation	Touch control (with optional remote control)
Rotor recognition	Automatically load and lock rotor parameters (optional)
Refrigeration system	Import of Fluorine-free Refrigeration Compressor and



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	Environmental Protection Refrigerant R404a
Temperature control range	-20℃-+40℃
Temperature control accuracy	±1℃
Up/Down	10-speed up/down shift
Time range	1 second to 99 hours, 59 minutes, and 59 seconds, with continuous and instantaneous centrifugation capabilities
Aggregate capacity	1.5kW
Noise	≤65d B (A)
Source	AC220V 50Hz
Weight	118kg
Dimensions (length, width, height)	835mm×630mm×450mm

Rotor parameters:

Product name	Capacity	YK-8231BR	
		Speed	Centrifugal force
Angular rotor	12×1.5/2.0mL	20800	31150
	24×1.5/2.0mL	16000	25600
	48×1.5/2.0mL	14000	21756
	12×5mL	15000	18000
	16×5mL	14000	20972
	12×10mL	14000	19796
	12×15mL	12000	17712
	6×50mL	13000	20449
	8×50mL (conical base)	11000	14883
	6×100mL	11000	14641
	6×250mL	8000	10176
PCR eight-way array	4×8×0.2mL	14000	15288
Horizontal rotor	48×5mL (standard tube)	4000	2368
	48×5mL (vacuum blood collection tubes)	4000	2832
	32×15mL	4000	2960
	4×50mL	5000	4625
	8×50mL	5000	2960
	4×100mL	5000	4800



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	76×5mL (vacuum blood collection tube)	4000	3024
	4×250mL (flat-bottomed)	4000	2848
	4×250mL (conical bottom)	4000	3392
	4×500mL	4000	3360
	4×750mL	4000	3536
Enzyme microplate rotor	2×2×96-well	4000	2368
	4×2×96-well	4000	3008