# Clinical & Mini Centuly Bes







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#### LCEN-100 Series, Clinical Centrifuges, Eight Places Rotor Of 15ml Tubes, 2500rpm Or 6000rpm



These centrifuges are widely used in many fields such as biology, medicine, pharmacology, dental, beauty clinics and veterinary laboratory and other regions.

They are small, compact, strong and easy and safe for operation.

The centrifuge operate smoothly and steadily.

The design is up to date, beautiful outlook and durable. ABS outer shell can resist collision.

It could accommodate 7ml, 10ml and 15ml centrifuge tubes without changing the rotor. With safety lock, when cover is opened, the motor can be stopped.

Precision mechanical timer with bell can be set from

0 to 30 minutes.

Speed is linear and stable. Auto balancing system. Vacuum rubber feet provide stable: "not walking" unit.



#### **Options: Adaptors for tubes**

(A) Standard 10~15ml tube holder; inner size:Ø17.5mm x L98mm (included).

- (B) Optional 5~7ml tube holder; inner size:Ø13.5mm x L69mm.
- (C) Optional 0.5~2.0ml tube holder; inner size:Ø11.0mm x L42mm.

(B) 5 - 7mladaptor

Model	Power Supply	Speed range	Rotor angle	Max. RCF(xG)	Dimensions Weight	Timer	Max. Capacity
LCEN-100	220V/50Hz or 110/60Hz	up to 2500rpm or up to 3200rpm	45°	1210xG	(HxWxDmm) 220x255x255 3kg	0–30min	15ml x 8 Optional adaptors for 7ml and 10ml
LCEN-101	110V/60Hz or 220/60Hz	300–6000rpm	45°	4100xG	(HxWxDmm) 270x255x255 5kg	0–30min	15ml x 8 Optional adaptors for 7ml and 10ml
LCEN-102 with tachometer	110V/60Hz or 220/60Hz	300-6000rpm	45°	4100xG	(HxWxDmm) 270x255x255 5kg	0–30min	15ml x 8 Optional adaptors for 7ml and 10ml



#### LCEN-304/312/324, Mini Centrifuges

(C) 0.5 - 2ml

#### **Features:**

• Table top, attractive, practical, and durable design for your economic choice

Safety balance

• Speed is linear and stable

• Friendly operate.



adaptor **Options:** (B) 5 - 7mladaptor

LCEN-304 (Top)

Model	LCEN-304	LCEN-312	LCEN-324		
Rotor		45°C Angle Type Rotor			
Tube Size	50ml	50ml 10ml~15ml			
Capacity	4 tubes	12 tubes	24 tubes		
Speed	500~3000rpm				
Timer	30 Min. Mechanical Timer With Bell Ring				
Power Supply	110V(220V available)				
Dimension	W300×D300×H315mm				
Net/Gross Weight	8.5/9.0 Kg				



#### LCEN-100/102D/312D/324D/306D, Table Top Centrifuges

#### **Features:**

- Small centrifuge can save your working desk space.
- ASB outer shell can resist collision.
- With safety switch, when lid is lifted during operation, the rotor will stop spinning.
- Auto balancing system can offer quiet and stable operation.
- Quality certificate: ISO 9001, ISO 13485.

- All models can accommodate variable centrifuge tube size from 1.5ml to 15ml without changing rotor
- Model LCEN-100 is a simple and economic type.
- Models LCEN-102D/312D/324D/306D are digital type which can set speed and time easily, and the LED display can show the R.CF. or RPM value. These two models have the automatic brake system which can offer repaid deceleration.

Model LCEN-100		LCEN-102D	LCEN-312D/324D/306D	
Max Speed (rpm)	3,000 at 60Hz, 2,500 at 50Hz	6,000	3,400	
Timer (min.) 0~30 min. (mechanical timer)		0~30 min. (digital timer)		
Speed & R.C.F. display None		Digital dispaly		
Motor Brush less induction		Brushless DC		
Weight (kg) N3.5 / G4.5		N4.8 / G5.8	N5.4 / G6.4	
Dimension (mm) W280 x D280 x H255		W280 x D280 x H265 W300 x D300 x H265		
Power supply AC 110V 60Hz (220V 50/60Hz availd		AC 100~240V 50/60Hz		

#### Specifications of rotors:

Model	LCEN-100	LCEN-102D	LCEN-312D	LCEN-324D	LCEN-306D	
Speed (rpm)	300~3,000	200~6,000		200~3,400		
Туре		45° angle				
Max. R.C.F. (xg)	1,066	4,265	1,680		1,667	
Capacity (ml)	8 x (10~15)		12 x (10~15)	24 x (10~15)	6 x 50	
Standard accessory	(10 $\sim$ 15)ml tube adapter. Tube adapter for (5 $\sim$ 7)ml or (1.5 $\sim$ 2.0)ml is optional.					

#### Easy order information:

Model	lrem
LCEN-100	Centrifuge LCEN-100 with rotor AR-1508
LCEN-102D	Centrifuge LCEN-102D with rotor UAR-1508
LCEN-312D	Centrifuge LCEN-312D with rotor AR-1512
LCEN-324D	Centrifuge LCEN-324D with rotor AR-1524
LCEN-306D	Centrifuge LCEN-306D with rotor AR-5006
DSC-A	Tube adapter for (10~15)ml tube
DSC-B	Tube adapter for (5~7)ml tube
DSC-C	Tube adapter for (1.5~2.0)ml tube





# LCEN–200/201, Compact Clinical–Typed Centrifuges, accept 8 or 12 tubes

#### Features:

- Free change of carbon brush motor, step less speed change.

  • Auto power off when open and auto-balance
- device.
- For angle rotor.
- Power pilot light and fuse safety device.
- ABS hard shell and see-through window.
  Auto-cooling air circulation 8 manual cover lock.
- Optional: 6 ml adapter can be replaced.





Model	LCEN-200	LCEN-201	
Max. Speed (rpm)	0~3,000/0~3,500		
Max. RCF (g)	1,360		
Max. Capacity (ml)	10x8	10x12	
Timer (min)	0~30 or "ON"		
Weight (kg)	8		
W x D x H Size (cm)	29 x 32 x 25		

#### Rotors for LCEN-200/201 (Included)



LCEN-200 Max. 3,500rpm 8x15ml



LCEN-201 Max. 3,500rpm 12x15ml

Rotor	Max. Speed (rpm)	Max. RCF (g)	Capacity (ml x pcs)	Tube size (Ø x L) mm
R-8	3,500	1,360	15 x 8	12~16.5x70~117
R-12	3,500	1,360	15 x 12	12~16.5x70~100



# A5P17 5ml adapter, Adapted to 13×75mm blood collection tube.

#### A2P17

1.5/2ml Cryogenic Vials/ centrifuge tube adapter.

#### LCEN-400, Low-speed Centrifuge

LCEN-400 low-speed centrifuge, supplied with built in fixed angle rotor A6-15P which can hold up to 15mL/10mL/7mL/5mL×6 tubes. It is widely used for blood or urine separation in medical routine practice in hospitals, clinics or research institutes

#### Features:

- Speed range from 300-5000rpm;
- Rotor speed can be set and displayed by RPM or G-force;
- Defined program by knob will be stored and activated when power on;
- Two programs P1/P2, easy to start the procedure by one key;
- Two deceleration speeds setting to meet different requirements;
- Easy-to-read processing display and sound alert;
- Automatic lid-lock release after running;
- Maintenance-free brushless DC motor.



Model	LCEN-400	
Speed Range	300-5000rpm, increment:10rpm	
Max. RCF	2350xg, increment: 10gm	
Speed Accuracy	±20rpm	
Rotor Capacity	6x15mL/10mL/7mL/1.5-5ml	
Run Time	30sec-99min, HD(continuous running)	
Display	LCD	
Programs Memory	2	
Acceleration/Deceleration	1↑ 2↓	
Safety Devices	Door interlock, Overspeed detector, Automatic internal diagnosis	
Motor	Brushless DC motor	
Power	Single-phase, 100V-240V,50Hz/60Hz, 70W	
Dimension (WxDxH)	300X240X180mm	
Weight	5.2kg	
Advanced features	Speed/RCF switch; sound-alert function	



#### LCEN-401N, Digital Clinical Centrifuge

Clinical centrifuge is ideal for separation of serum, plasma, urea, blood samples and other routine applications in hospital and research laboratories.

#### **Features:**

- Max. speed is 4500rpm
- Precise control speed and time with efficient separation
- Faster acceleration & deceleration
- Suit for 15mL cell culture tubes and full line of collection tubes, ideal for a clinical labLED display
- Rotor capability: 15mL×8 or 10mL/7mL/5mL×12
- LED display.



#### Available rotor and adapters:

Rotor Type	Tubes	Available Tubes	Dimensions (Ø x L mm)	Adapters (included)	Maximum Speed (rpm)	Radius (cm)	Maximum RCF (x g)
	15ml con	8	17 x 120		4500	11	2490
	1.5-5ml vacu	12	13 x 82	A10P15 & Mat	4500	9.8	2218
A12-10P	4-7ml vacu	12	13 x 106 16 x 75	A10P15 A10P15 & Mat	4500	11 9.8	2490 2218
	8.5-10ml vacu	12	16 x 107	A10P15	4500	11	2490
	2.7-3ml(EU) collection tube	12	11 x 66	A10P15 & Mat	4500	9.8	2218
	7.5-8.2ml(EU) collection tube	12	15 x 92	A10P15	4500	11	2490

# CENTRIFUGES Digital Clinical

#### LCEN-402N, Digital Clinical Centrifuge



LCEN-402N clinical centrifuges support small volumes applications. The centrifuges are supplied with an angle rotor that can hold up to 50mL×6 or 15mL×6. They are widely used in medical & veterinary practices for the centrifugation of blood and urine samples in qualitative analysis of water and soil samples. These centrifuges are also used in universities and other research institutes.

#### Features:

- Easy programming to achieve high accuracy of speed control
- Easy operation with intuitive menu & easy-to-read display
- Rotor speed can be set and displayed by RPM or G-force
- Maintenance-free brushless DC motors
- Quick spin function with press and hold pulse key
- Lid with electric lock and automatic release function saves processing time and prevents samples overheating
- Automatic self-diagnosis on startup showing accumulative running time and last running parameters
- Braking time 2 gears adjustable.



Max. speed: 4000rpm Max. RCF: 1800×g Rotor capacity: 50ml×6,15ml×6 Rotor material: High strength plastic.



#### **Specifications:**

•	
Model	LCEN-402N
Speed Range	300–4500rpm, increment: 100rpm
Max RCF	2490 Xg
Speed Accuracy	±20rpm
Run Time	30sec-99min HOLD (Continuous operation)
Motor	Brushless DC motor
Display	LCD
Safety Devices	Door interlock,Overspeed detector; Automatic internal diagnosis
Acceleration/Braking time	A12-10P: 20s ↑ 13s A6-50P: 20s ↑ 20 s /90 s
Power	Single-phase, 100V-240V,50Hz/60Hz, 3A 70W
Dimension [WxDxH]	301×354×217mm
Weight	6kg
Certification	CE, UL, IVD
Advanced Features	Speed/RCF switch;Short-time run function; sound-alert function

# Digital Clinical **CENTRIFUGES**



Rotor capacity: 15ml×8,10ml×12 Rotor material: High strength plastic

#### LCEN-403, Digital Clinical Centrifuge

MRC low speed clinical centrifuge is widely used in the medical industry. Ideal for separation of serum, plasma, urine, faecal samples in biochemical & medical laboratories. It is an essential equipment of every clinical laboratory, blood bank, medical college and medical research institute.

#### **Features:**

- Max. speed 4000rpm.
- Rotor speed can be set in RPM/RCF, with 3 programs storage capacity for routine applications.
- Max. capacity 50ml×4, Adapt to different sizes of blood collection tubes and centrifuge tubes suitable for swing out rotor and angle rotor.
- Automatic internal diagnosis and self-detection.
- Maintenance-free brushless DC motor.



#### S6 - 15

Max. speed: 4000rpm Rotor capacity: 15ml×6 Rotor material: Aluminum alloy Default adaptor: A15P22, A5P17



Max. Speed: 4000rpm Rotor capacity: 50ml×4 Rotor material: Aluminum alloy Default adaptor: A15P30, A5P17



#### A24-15P

Max. speed: 4000rpm Rotor capacity: 15ml×24 Rotor material: High strength

plastic

Default adaptor: A15P22, A5P17



#### A8-15P

Max. Speed: 4000rpm Rotor capacity:15ml×8 Rotor material: High strength

plastic

Default adaptor: A15P22.

Model	LCEN-403			
Speed Range	500-4000rpm increment: 100rpm			
Max. RCF	2500×g			
Speed accuracy	±100rpm			
Rotor Capacity	Swing6×15ml, Swing4×50ml, Angle 24×15 ml, Angle 12×10ml/8×15ml			
Run Time	1–99min, HOLD			
Motor	Brushless DC motor			
Display	LCD			
Program	Blood: 3200rpm,10min. Urine: 1800rpm,5min. Faecal: 1300rpm,10min			
Acceleration/Deceleration	3↑ 4↓ steps			
Power	Single phase, 100V-240V, 50Hz/60Hz			
Dimension (WxDxH)	364×440×268mm			
Weight	14.5kg			
Noise	≤62dB(A)			



#### LCEN-404, Digital Clinical Centrifuge

- Features:
  Speed range of 300-4000rpm.
  3 programs storage capacity for routine applications.
  Automatic internal diagnosis.
  Maintenance free brushless DC motor.



Model	LCEN-404			
Speed Range	300-4000rpm, increment: 100rpm			
Max RCF	1900 Xg			
Speed Accuracy	±100rpm			
Rotor	Angel 8×15ml (Default), Angel 10ml×12			
Run Time	1-99min, HOLD			
Motor	Brushless DC motor			
Display	LED			
Program	Blood: 3200rpm,10min. Urine: 1800rpm,5min. Faecal: 1300rpm,10min.			
Safety Devices	Automatic internal diagnosis			
Acceleration/deceleration	25s <b>↑</b> 35s			
Power	Single-phase, 100V-240V,50Hz/60Hz			
Dimension [WxDxH] 286×367×227mm				
Weight	9.2kg			
Noise	≤60dB(A)			

# Benchtop, High-Speed CENTRIFUGES



#### CENHBR-14K, Tiny High Speed Refrigerated Centrifuge

#### Features:

- Streamlined frame to save space.
- Light weight design.
- Conversion motor driving which is of stable operation & precise in rotating speed.
- micro-computer control, LCD display.
- Starting up with smart detection and imbalance protection.
- Intelligent automatic door lock which ensure the safety & operate easily.
- operation procedures and acceleration/deceleration can be stored and adjusted.
- Inverter compressors ,CFC-Free refrigerants and precise in temp. control.
- RCF can be directly set up and display, without RPM/RCF translated.
- Parameters can be modified during operation.





#### **Technical Parameters:**

Model	CENHBR-14K	
Max. Speed	14000 r/min	
Max. RCF	18800 Xg	
Max. Capacity	24X1.5ml	
Speed Accuracy	±10 r/min	
Temp. Accuracy	±1°C	
Temp. Range	-10°C ~ 35°C	
Timer Range	1~999min 59sec.	
Noise	55dB (A)	
Power	AC 220V 50HZ 15A	
Dimension	400 × 285 × 285 (L × W × H) mm	
Weight	19 kg	
Standard Rotor	24X1.5ml angle rotor (include 0.5ml and 0.2ml adapter)	
Optional Rotor	4X0.2ml PCR 8 tube (angle rotor)	







# **CENTRIFUGES** Benchtop, High-Speed



# CENHBR-15K, Tiny High Speed Refrigerated Centrifuge

#### **Features:**

- Streamlined frame to save space.
- Light weight design.
- Conversion motor driving which is of stable operation & precise in rotating speed.
- micro-computer control, LCD display.
- Starting up with smart detection and imbalance protection.
- Intelligent automatic door lock which ensure the safety & operate easily.
- operation procedures and acceleration/deceleration can be stored and adjusted.
- Inverter compressors ,CFC-Free refrigerants and precise in temp. control.
- RCF can be directly set up and display, without RPM/RCF translated.
- Parameters can be modified during operation.





#### **Technical Parameters:**

Model	CENHBR-15K			
Max. Speed	15000 r/min			
Max. RCF	21630 Xg			
Max. Capacity	24X1.5ml			
Speed Accuracy	±10 r/min			
Temp. Accuracy	±1°C			
Temp. Range	-10°C ~ 35°C			
Timer Range	1~999min 59sec.			
Noise	55dB (A)			
Power	AC 220V 50HZ 15A			
Dimension	400 × 285 × 285 (L × W × H) mm			
Weight	19 kg			
Standard Rotor	24X1.5ml angle rotor (include 0.5ml and 0.2ml adapter)			
Optional Rotor	4X0.2ml PCR 8 tube (angle rotor)			



# 300ml Capacity **CENTRIFUGES**



Model	SCEN-207	
Max. Speed (rpm)	5,500	
Max. RCF (g)	3,280	
Max. Capacity (ml)	300	
Timer (min)	0~30 or "ON"	
Weight (kg)	9	
W x D x H Size (cm)	29 x 32 x 25	

#### SCEN-207, Beginner's Small Universal Centrifuge Features:

- Analog speed tachometer.Optional rotor selections for various tube sizes.
- Regressive timer: 30min, or continuous operation.
- Angle rotor, stepless speed setting.
  Auto accelerating and decelerating functions.
- Auto-current restraining function.
- Power pilot light and fuse safety device.
- Manual cover lock.
  Speed: 5,500rpm; Timer: 0~30 or "ON".
- Max. capacity: 300 ml.
- Weight: 9kg.
- Size: W29xD32xH25cm.
- Auto power off when open and auto-balance device.
- ABS hard shell and see-through window.
- Auto-cooling air circulation.





RA-5004 50ml x 4pcs Max. 5,500rpm



RA-5006 50ml x 6pcs Max. 5,500rpm



RA-1508 15ml x 8pcs Max. 5,500rpm



RA-1512\$ 15ml x 12pcs REA-1520 1.5ml x 20pcs Max. 5,500rpm



Max. 4,000/5,500rpm

#### **Rotors for SCEN-207:**

	Max. Speed (rpm)	Max. RCF (g)	Capacity (ml x pcs)	Tube size (Ø x L) mm
RA-1508		3,140	15 x 8	15~16.7x90~122
RA-1512\$		3,280	15 x 12	15~16.7×90~122
RA-5004	0~5,500	3,240	50 x 4	27.5~29.5x90~117
RA-5006	-	3,240	50 x 6	27.5~29.5x90~117
REA-1520		2,600	1.5 × 20	10~11x36~56

# CENTRIFUGES Benchtop, Low-Speed



#### MDCEN-302-SD, Benchtop low speed centrifuge Features:

- Metal housing is sturdy and durable.
- Auto-balancing system can extend motor life and reduce noise.
- With safety interlock, it can prevent the lid from being opened during operation.
- Forced fan air convection prevents the motor from overheating.
- Precision digital timer can be set to 30 minutes with 10 sec. increment.
- MDCEN-302-SD can offer short runs by pushing the function key.
- LED digitaldisplay enables users to monitor the present speed value and the remaining time.

  • Automatic brake system can offer rapid deceleration.
- MDCEN-302-SD features a see-through window.
- The lid will be opened automatically once the rotor stops spinning.







AR-1512 5-15ml x 12pcs Max. 4,000rpm

AR-1524 5-15ml x 24pcs Max. 4,000rpm

AR-5006 50ml x 6pcs Max. 4,000rpm



UAR-1512 5-15ml x 12pcs Max. 6,000rpm



5-7ml x16pcs, 10-15ml x 12pcs, 50ml x 4pcs Max. 4,000rpm

#### **Technical Parameters:**

reclinical raidinelets.					
Model	MDCEN-302-SD				
Max Speed	6000 r/min				
Max RCF	5,151 g				
Max Capacity	24X15ml (4000rpm)				
Motor	DC Motor				
Timer Range	0~30 min, Digital Timer				
Display	LED digital display for time & speed				
Dimension	505 × 390 × 290 (L × W × H) mm				
Weight (N/G)	19/21 kg				

#### **Rotor Technical Data:**

Model	Capacity	Type	Speed	Standard Accessory	Max RCF
AR-1512	12x5~15ml	45° angle	300~4000rpm	(5~7)ml and (10~15)ml tube adapters	2325g
AR-1524	24x5~15ml	45° angle	300~4000rpm	(5~7)ml and (10~15)ml tube adapters	2325g
AR-5006	6x50ml	45° angle	300~4000rpm	50ml tube adapters	2325g
UAR-1512	12x5~15ml	45° angle	300~6000rpm	(5~7)ml and (10~15)ml tube adapters	5151g
	16x5~7ml		300~4000rpm		
SB-071550	71550 12x10~15ml Swing-out 300~4000rpn		300~4000rpm	(5~7)ml and (10~15)ml & 50ml tube adapters	2683g
	4x50ml		300~4000rpm	.525 23461613	

Note: Tube adapter for (1.5-2.0)ml is optional.



#### MDCEN-302-SMD, Benchtop low speed centrifuge **Features:**

- Metal housing is sturdy and durable.
- Microprocessor controlled system offers the accurate & simple operation.
- Brushless DC motor is durable & maintenance free with two year warranty.
- 9 sets program memory function.
- Self-diagnostic function which can detect the errors for unbalance, over heat, over current, over voltage, over speed, lid opening.
- Auto-balancing system can extend motor life and reduce noise.
- With safety interlock, it can prevent the lid from being opened during operation.

  • Forced fan air convection prevents the motor from
- overheatina.
- Precision digital timer can be set to 30 minutes with 1 sec. increment.
  - Digital speed setting is with 50 rpm increment.
- DSC-302-SMD can offer short runs by pushing the function key.
- LCD digital display enables users to monitor the present speed value and the remaining time.
- Automatic brake system can offer rapid deceleration.
- DSC-302-SMD features a see-through window.
- The lid will be opened automatically once the rotor stops spinning.
- Quality certificate: ISO 9001, ISO 13485.



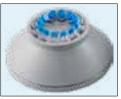
5-15ml x 12pcs Max. 4,000rpm



AR-1524 5-15ml x 24pcs Max. 4,000rpm



AR-5006 50ml x 6pcs Max. 4,000rpm



**UAR-1512** 5–15ml x 12pcs Max. 6,000rpm



5-7ml x16pcs, 10-15ml x 12pcs, 50ml x 4pcs Max. 4,000rpm

#### **Technical Parameters:**

echnical raidmeters.				
Model	MDCEN-302-SMD			
Max Speed	6000 r/min			
Max RCF	5,151 g			
Max Capacity	24X15ml (4000rpm)			
Motor	DC Motor			
Timer Range	0~30 min, Digital Timer			
Display	LED digital display for time & speed			
Dimension	505 × 390 × 290 (L × W × H) mm			
Weight (N/G)	19/21 kg			

#### **Rotor Technical Data:**

Model	Capacity	Туре	Speed	Standard Accessory	Max RCF
AR-1512	12x5~15ml	45° angle	300~4000rpm	(5~7)ml and (10~15)ml tube adapters	2325g
AR-1524	24x5~15ml	45° angle	300~4000rpm	(5~7)ml and (10~15)ml tube adapters	2325g
AR-5006	6x50ml	45° angle	300~4000rpm	50ml tube adapters	2325g
UAR-1512	12x5~15ml	45° angle	300~6000rpm	(5~7)ml and (10~15)ml tube adapters	5151g
	16x5~7ml		300~4000rpm		
SB-071550	12x10~15mi		300~4000rpm	(5~7)ml and (10~15)ml & 50ml tube adapters	2683g
			300~4000rpm		

Note: Tube adapter for (1.5-2.0)ml is optional.

# Microcentrifuge Compact 6, 12 Places

#### ECEN-6/7/10, Mini Centrifuges, 6 Places



Model	ECEN-6	ECEN-7	ECEN-10		
Power requirement	30W	30W	40W		
Max. rotational speed	6,000rpm	7,000rpm	10,000rpm 5,000×g		
Relative centrifugal force(RCF)	2,000×g	2,300×g			
	6×0.2/0.5/1.5/2.0ml angle rotor				
Rotor	2×8×0.2m	-			
KOIOI	Rotor for slide	-			
Dimensions(W×D×H)					



#### A12-2P

Max. speed: 15000rpm Max. RCF: 15100×g

Rotor capacity: 2mL/1.5mL×12,0.2mL×12,0.5mL×12 Rotor material: High strength plastic Available rotor adapters: A02P2, A05P2.

# ECEN-12, High Speed Centrifuge Mini Centrifuge

- Powerful centrifugal force of 15100xg and max. speed of 15000rpm ideal for various applications
- Brushless DC motor drive quickly accelerates the rotor to
- Quiet working, Low noise ≤56dB
- ECEN-12 Plus is proven by IEC/EN 61010-1
  ECEN-12 Plus passed the rigorous explosion-proof test and accredited with CE, cTUVus, FCC certificates, and MCA test. MCA test according to IEC/EN61010-2-20.

Model	ECEN-12	
Max. speed	15000rpm(500–15000rpm), increment: 100rpm	
Max. RCF	15100×g, increment: 100×g	
Speed Accuracy	±20rpm	
Rotor Capacity	0.2mL/0.5mL/1.5mL/2mL×12	
Run Time	30sec-99min/Continuous	
Driving Motor	Brushless DC motor	
Safety Devices	Door interlock, Over-speed detection Over-temperature detection, Automatic internal diagnosis	
Power	Single-phase, AC100V-240V, 50Hz/60Hz, 3A 100W	
Noise level	≤54dB	
Acceleration/Braking time	11s↑/9s↓	
Dimension (D×W×H)	255×245×140mm	
Weight	6kg	
Certification	EMC, CE, FCC, ICES, cTUVus, CB	
Advanced features	Speed/RCF switch, Short-time run function, sound-alert function	

#### ECEN-205, High Speed Centrifuge, 18 Places



#### **Features:**

- LED speed & time display.
- Microprocessor control.
- 10 memory programs for preset parameters.
- Auto accelerating and decelerating functions.
- The transient centrifugal functions.
- Auto cover lock with motor running.
- Auto power off for rotor imbalance.
- Auto buzzer when finish.
- ABS hard shell and see-through window.
- Auto-cooling air circulation.
- Low noise.







Model	Speed(rpm)	Rotor	Max. RCF (g)	Max. capacity (ml x pcs)	Timer (min:sec)	Weight (kg)	WxDxH Size (cm)
ECEN-205	1000~14,000	REA-1518	16,000	1.5/2.0 x 18	99:59	8	29x32x24.5

# CENTRIFUGES

# High-Speed 300ml



Model	SCEN-206	HSCEN-204	
Max. Speed (rpm)	500~6,000	1,000~8,000	
Max. RCF (g)	3,910 6,660		
Max. Capacity (ml)	300		
Timer (min:sec)	99:59		
Weight (kg)	10		
W x D x H Size (cm)	29 x 32 x 25		
Power	AC 110V/220V, 50/60Hz		

# SCEN-206/HSCEN-204, Digital Universal Centrifuges Features:

- LED speed and time display.
- Microprocessor control.
- 10 memory programs for preset parameters.
- Auto accelerating and decelerating functions.
- Auto cover lock with motor running.
- Auto power off for rotor imbalance.
- Auto buzzer when finish.

• Speed: 500~6000rpm/1,000~8,000rpm Timer: 99min 59 sec.

- Max. Capacity: 300ml.
- Weight: 10kg.
- Size:W29xD32xH25cm.
- ABS hard shell and see-through window.
- Auto-cooling air circulation.
- Optional rotor selections for various tube size.



(Rotor not included)

#### **Rotors for SCEN-206**



RA-1508 15ml x8pcs Max. 6,000rpm



RA-1512S 15ml x12pcs Max. 6,000rpm



RA-5004 50ml x4pcs Max. 6,000rpm



RA-5006 50ml x6pcs Max. 6,000rpm

#### Rotors for HSCEN-204 (High-Speed)



RA-1508-1 15ml x8pcs Max. 8,000rpm



RA-1512S-1 15ml x12pcs Max. 7,000rpm



RA-5004 50ml x 4pcs Max. 7,500rpm



RA-5006 50ml x 6pcs Max. 7,000rpm

	HSCEN-204		SCEN-2	.06	Capacity	Tube size
Rotor	Max. Speed (rpm)	Max. RCF (g)	Max. Speed (rpm)	Max. RCF (g)	(ml x pcs)	(Ø x L) mm
RA-1508			6,000	3,750	15 x 8	14~16.6x92~122
RA-1508-1	8,000	6,660			15 x 8	15~17.3x92~122
RA-1512S			6,000	3,910	15 x 12	14~16.6x92~122
RA-1512\$-1	7,000	5,320			15 x 12	15~17.3x92~125
RA-5004	7,500	6,040	6,000	3,870	50 x 4	27.5~29.5x84~117
RA-5006	7,000	5,260	6,000	3,870	50 x 6	27.5~29.5x84~117

#### 24 Places Hematocrit Centrifuges

Each capillary is secured within its own chamber and supported by a holding tray. This holding tray serves to contain glass shards and any leakage should a tube break. It is easy to clean and disposable in the case of glass breakage. The main area of application for hematocrit centrifuges is the determination of volume fraction of erythrocytes in blood. For this purpose, blood in hematocrit capillaries is centrifuged until maximum packed cell volume has been reached. Following centrifugation, the hematocrit value can be read using a special evaluation disc. Preparing blood for photometric determination of bilirubin content in plasma and centrifuging special capillaries for quantitative Buffy Coat Analysis are further areas of application for this special-purpose centrifuge.



# HCEN-202 **Analog**

#### **Features for** HCEN-203:

- Digital speed and time display.
- 10 memory programs for presetting parameters.
- Auto accelerating and decelerating functions.



#### **Features for** HCEN-202:

- Manual-breaking system provides rapid deceleration.
- Power pilot light and fuse safety protection.
- Regressive timer: 15 min, with ring device.





HT-Tube	Hematocrit Reader
Reader ar	nd HT tubes not included.

#### Rotor for HCEN-202/203 included



RHT-240 Hematocrit x 24pcs Max. 12,000rpm

Model	HCEN-203	HCEN-202		
Max. Speed (rpm)	1,000~12,000	12,000		
Max. RCF (g)	14,810			
Max. Capacity (ml)	Hematocrit x 24			
Timer (min:sec)	99:59 0~15 min			
Weight (kg)	10 8			
W x D x H Size (cm)	29 x 32 x 25			

Rotor	Max. Speed (rpm)	Max. RCF (g)	Capacity (ml x pcs)	Tube size (Ø x L) mm
RHT-240	12,000	14,810	Hematocrit x 24	1.1~1.2 x 75



# HCEN-103, 24 Places Rotor Of 1.5ml/2ml Tubes & 24 Places Hematocrit Centrifuge

Digital Micro Centrifuge HCEN-103 is designed for small specimens. Digital Micro Centrifuge with metal housing is sturdy and durable. Auto-balancing system can extend motor life and reduce noise.

With safety interlock, it can prevent the lid from being opened during operation. Forced fan air convection prevents the motor from overheating. Precision digital timer can be set from 0 ~ 15 minutes 30 sec. increment. HCEN-103 can offer short runs by pressing the function key. LED digital display enable user to monitor the present speed or the remaining time. Automatic brake system can offer rapid deceleration. HCEN-103 features a see-through window. The lid will be opened automatically once the rotor stop spinning.

HCEN-103 is a combo centrifuge with can accommodate micro or micro hematocrit rotors. Quality certificate: ISO 9001, 13485.

#### **Specifications for Centrifuge:**

Model	Timer	Speed display	Motor	Weight (kg) (N.W./G.W.)	Size(mm) WXDXH
HCEN-103	0~15 min. Digital timer	LED digital display for time and speed	Universal motor	13.0/14.5	290x400x260

#### Specifications for Rotors (Included):

Model		Max. Speed (rpm)	Туре	Capacity
HT-24	• .	500~12,000	Disc	24 x capillary tube(Diam.1.5x75mm)
MAR-24	4	500~12,000	45 degerr angle	24 x (1.5~2.0)ml

Note: Standard percentage reader (aluminum) is a standard accessory for HT-24.



# Percentage reader (aluminum) for HT- 24

### HCEN-104N, Micro Hematocrite centrifuge

- Micro hematocrit centrifuge is an indispensable instrument in laboratory.
- Auto-balancing system can extend motor life and reduce noise.
- With safety switch, when lid is lifted during operation, the rotor will stop spinning.
- Good ventilation system prevents the motor from overheating.
- Precision timer with bell can be set from 0 to 15 minutes.
- Manual brake can faster controlover the spindown cycle.
- Model HCEN-104N with all ABS plastic housing & inner metal chamber is a durable and economic type.
- Quality certificate: ISO 9001, ISO 13485.







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Percentage reader (plastic) for HT-24

HT-24 - Rotor

Wax for capillary tube

capillary tube Ø1.5x75mm

#### **Specifications:**

1	Model	HCEN-104N		
	Motor	Universal motor		
	Rotor	HT-24		
	Timer (Min.)	0-15 min. mechanical timer		
	Weight (Kg) N/G	5.1/5.6		
	Oveall Dimensions	W300 x D300 x H240mm		

#### **Rotor Specifications:**

Model	Capacity	Type	Max Speed	Max RCF	Standard Accessory
HT-24	24xcapillary Tube1.5x75ml	Disc	12000rpm (fixed)	14,808Xg	Percentage reader (aluminium)

Note: Wax, capillary tube, and percentage reader (plastic) are optional accessories.



#### MINI-PLATE, Mini-Plate Centrifuge

The compact and economical Mini-PLATE Mini-Plate. It can quickly spin down droplets and condensation and is for use before and after thermal cycling to improve PCR

It accepts skirted, non-skirted and all standard PCR plates making, it's suitable for the molecular laboratory.

- Quickly Spin down droplets.
- Use before & after thermal cycling to increase PCR yield.

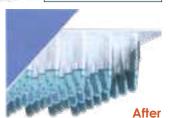
 Accepts skirted, non-skirted and all standard PCR plates.

• Less than 1/4 the size of most plate centrifuges.









Model	Capacity	Rotor Speed	G Force	Dimensions	Weight	Power
MINI-PLATE	2 PCR Plates	2500rpm	500 xg	20(W)x23(D)x19.3(H)cm	3kg	120V/230V, 50-60HZ



#### CEN-ID12, Centrifuge for up to 24 gel cards

#### **Features:**

- Silent centrifuge for up to12 ID-cards.
- Removable and exchangeable spinning head
- Automatic balance control
- Pre-defined centrifugal parameters for optimum Cards processing; acceleration, speed, braking & time Digital interface visor control and visualization of
- centrifuge speed and time remaining for processing
- Programmable audible alarms for end of centrifuge time periods.

Model	CEN-ID12	
Capacity	12 Gel Cards	
Speed Range	800~1800rpm	
Centrifugal Force	54~272g	
Timer	1~20min	
Power	AC100~240V, 85W	
Demensions (DxWxH)	440 x 340 x 170mm	
Net Weight	7kg	

# CENTRIFUGES Large 1000ml, For Gel Cards



#### Rotors for LGCEN-404/400/401



# LGCEN-404, Memory Program Centrifuge

- LCD speed and time display with RCF setting.
- Quiet brushless motor.
- Microprocessor control.
- 10 memory programs for preset parameters.
- Overheat and overload safety protection.
- Auto power off for rotor imbalance.
- Auto buzzer when finish.
- hidden auto-balance device.
- Auto power off when open.
- Auto cover lock with motor running.
- Power pilot light and fuse safety device.
- Auto accelerating and decelerating functions.
- See-through window.
- Optional rotor selections for various tube size.
- Low noise.

Model	LGCEN-404	LGCENR-400	LGCENR-401			
Max. Speed(rpm)	500~6,000					
Max. RCF (g)	4,830					
Capacity(ml x pcs)	1,000					
Temp. Range		0°C~	40°C			
Timer (min:sec)	99:59					
Weight (kg)	40 112 75					
WxDxH size(cm)	45 x 56 x 38	52 x 65 x 90	80 x 60 x 38			

Rotor	Max. Speed (rpm)	Max. RCF (g)	Capacity (ml x pcs)	Tube size (Ø x L) mm	Cat. No.
*	4,500	3,260	15x16	14~17.5x85~112	2-3400-32
	4,000	2,480	50x4	32~35x90~117	2-3400-22
	5,000	4,020	100x4	42~45x95~112	2-3400-21
RS-50	5,500	4,830	50x4TC	26.5~29.5x90~120	2-3400-23



#### CEN-ID24, Centrifuge for up to 24 gel cards **Features:**

- Silent centrifuge for up to 24 ID-cards.
- Removable and exchangeable spinning head
- Automatic balance control
- Pre-defined centrifugal parameters for optimum Cards processing; acceleration, speed, braking & time
- Digital interface visor control and visualization of centrifuge speed and time remaining for processing
- Programmable audible alarms for end of centrifuge time periods.

Model	CEN-ID24		
Capacity	24 Gel Cards		
Speed Range	500~1500rpm		
Centrifugal Force	33~294g		
Timer	1~20min		
Power	AC100~240V, 85W		
Demensions (DxWxH)	530 x 410 x 180mm		
Net Weight	11.5kg		



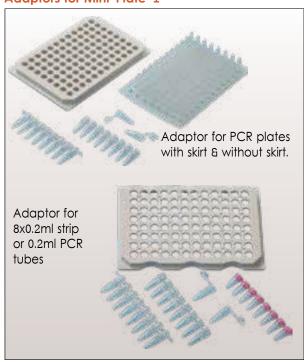
#### MINI-PLATE-1, Mini-Plate Centrifuge

Mini-Plate-1 Centrifuge is the first one adopted an unique design for the horizontal rotor centrifuge (Patented) in the world. The plate or tubes set into the rotor with 2pcs slope-rotor-shelf. It can quickly spin down droplets and condensation and is for use before and after therml cycling to improve PCR yield and other tests. The Mini-Plate-1 combines functionality, easily operation and comfort - a lot of "high" qualities to come standard in one compact micro-centrifuge.

#### **Features:**

- Unique design for the horizontal rotor (Patented)
- It can accept below formats:
  - PCR standard plates with skirted, non-skirted
  - Elisa Plates
  - 8x0.2ml PCR strip tubes
  - 0.2ml PCR tubes
- Braking time from max.speed: lower than 30sec
- Timer can be set up to 10minutes
- Short-spin and timing of two operations make the tests more convenient
- Streamline design with more compact shape and transparent PC lid.

#### Adaptors for Mini-Plate-1



#### **Functional Diagram**



Before Working Working

#### How to put the Plates



1. Put the PCR plate



3. Put the PCR plate with skirt & without skirt



2. Put the Elisa plate



4. Put the 8x0.2ml strip or 0.2ml PCR tubes

Mode		Capacity	Rotor Speed	G Force	Dimensions	Weight	Power
MINI-PLA	ſE−1	2pcs PCR plates with skirt or without skirt/Elisa plates 8x0.2ml PCR strip tubes / 0.2ml PCR tubes	2,200rpm	480 xg	290(W)x360(D)x140(H)mm	3.6kg	120V/220V, 50-60HZ

# CENTRIFUGES Centrifugal Continuous Separator



# BSCEN-600/601/602, Centrifugal Separator (Tripedal Type)

#### **Features:**

volume.

For solid and liquid separation.

The dipping part is in stainless steel SUS304.For materials separation in large

 Equipped with 3-point shake-proof device.



#### BSCEN-600T Teflon Coated

Teflon coating for getting acid resistance can be requested to do with an extra charge.



Filter bag

Metal Basket (Small) Ø15cm x H8cm (Capacity 0.8L)



Metal Basket (Medium) Ø24cm x H14cm (Capacity 3L)



Metal Basket (Large) Ø30cm x H16cm (Capacity 4.5L)

			(/		(		
Model	Max. Speed (rpm)	Max. RCF (g)	Basket Size (cm)	Capacity (Liter)	Weight (kg)	W x D x H Size (cm)	
BSCEN-600			Ø15 x H8	0.8			
BSCEN-601	0~3,000	1,509	Ø24 x H14	3.0	74	56 x 56 x 60	
BSCEN-602			Ø30 x H16	4.5			