

# Microspin 12, High-speed Mini-centrifuge



## DESCRIPTION

High-speed mini-centrifuge Microspin 12 is a compact desktop centrifuge designed for biomedical laboratories.

Microspin 12 is used for extracting RNA/DNA samples, sedimentation of biological components, biochemical and chemical analysis of microsamples.

A display simultaneously shows actual and set values for:

1. Centrifugation time;
2. Set and actual speed values;
3. Relative centrifugal force.

A brushless motor provides noiseless performance at the maximal speed and long service life. An angular rotor is designed for accommodation of 12 Eppendorf microtubes and spin columns. The rotor is made of aluminium, it is equipped with fixing lid and included in the standard specification of the centrifuge. Constant airflow around the rotor reduces risk of samples overheating during operation.

Metal protective inserts inside the casing and lid, automatic imbalance switch-off and locking of a lid provide safe operation. Completion of centrifugation is indicated by a sound signal.

The external power supply unit allows operation of Microspin 12 in cold rooms (at ambient temperatures from +4°C to +40°C).

Standard set:

Built-in rotor MSR-12 (12 places for microtubes 1.5/2 ml) with protection lid MSL-SC and adapters A-02, A-05

12 places for microtubes 1.5/2 ml  
A-02 adapter 12 pieces for microtubes 0.2 ml  
A-05 adapter 12 pieces for microtubes 0.5 ml

## SPECIFICATIONS

Speed control range	1000 - 14500 rpm (increment 100 rpm)
Relative centrifugal force control range	50–12,400 × g
Digital time setting	15 s – 30 min (increment 15 s - 1 min)
Timer sound signal	+
Rotor imbalance diagnostics (automatic stop, "IMBALANCE" warning)	+
Acceleration time up to 14,500 rpm	20 s
Slowdown time, not more	10 s
Display	LCD, 2 x 16 signs
Overall dimensions (W×D×H)	200x240x125 mm
Weight	3.5 kg
Input current/power consumption	24 V, 2.5 A / 60 W
External power supply	Input AC 100–240 V 50/60 Hz, Output DC 24 V



## CAT. NUMBER

Including MSL-SC lid, adapters A-02, A-05	Including MSL-SC lid, adapters A-02, A-05
BS-010213-AA1	230VAC 50/60Hz Euro plug
BS-010213-AAQ	230VAC 50/60Hz UK plug
BS-010213-AA4	230VAC 50/60Hz AU plug
BS-010213-AA2	100VAC 50/60Hz US plug, 120VAC 60Hz US plug
BS-010213-DK	IQ OQ document
BS-010213-CK	PQ document



A-02  
BS-010213-BK  
adapter

Adapter 12 pieces for microtubes 0.2  
ml



A-05  
BS-010213-AK  
adapter

Adapter 12 pieces for microtubes 0.5  
ml

# LMC-56, Laboratory Centrifuge



## DESCRIPTION

LMC-56 is a modern benchtop, low-speed laboratory centrifuge designed for convenient sedimentation, centrifugation and collection of necessary samples. It provides operation with tubes, blood collection systems, gel cards, microtest and ELISA plates. Our centrifuges are designed for safe work (metal protecting housing), easy maintenance and wide application range in medical, biochemical, chemical, industrial and other type of laboratories.

Features:

- User-friendly centrifugation parameter input and simultaneous display of the set and actual parameter values.
- Safe assay performance: metal protective housing and metal lid, automatic imbalance switch-off, lid lock during the centrifuge operation provide safe operation at all speeds.
- Rotor imbalance automatic diagnostics (emergency stop, imbalance indication).
- Automatic rotor detection with active rotational speed limit.
- Relatively high speed – maximum 6,000 rpm or 3,750 g.
- Wide choice of accessory rotors and adapters.
- A wide selection of rotors – up to 13.
- Improved chamber to reduce sample heating during centrifugation.
- Different modes of acceleration and deceleration, including deceleration mode with switched off forced braking.
- Possibility to set the speed both in revolutions per minute and by relative centrifugal force.

## SPECIFICATIONS

Speed regulation range for centrifuge tubes	100-6000 rpm  (3750 × g)
Speed regulation range for microtitre plates	100-2000 rpm  (560 × g)
Speed setting resolution	100 rpm
Digital time setting	1 – 90 min / non-stop (increment 1 min)
Timer sound signal	+
Rotor imbalance diagnostics (automatic stop, "IMBALANCE" warning)	+
Rotor detection	+
Display	LCD, 2 x 16 signs
Chamber diameter	355 mm
Overall dimensions (W×D×H)	560 × 480 × 315 mm
Weight	16.5 kg
Nominal operating voltage	230 V, 50/60 Hz or 120 V, 50/60 Hz
Power consumption (230V / 120 V)	320 W / 330 W

## ACCESSORIES

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<b>BR-4U</b> BS-010221-AK Rotor  Bucket rotor without bucket adapters	<b>BA-2/50</b> BS-010221-CK Bucket adapters  Bucket adapters for 2 tubes of 50 ml (set of 4 pcs.)	<b>BI-25-8</b> BS-010221-UK adapter set  For bucket adapters BA-2/50 optional adapter set (8 pcs) - BI-25-8 for 25 ml conical tubes	<b>BA-4/FT</b> BS-010221-YK Bucket adapters  Bucket adapters for 4 conical bottom centrifuge tubes of 15 ml (set of 4 pcs.)	<b>BA-4/VT</b> BS-010221-K Bucket adapters  Bucket adapters for 4 vacutainer adapters of 2.9 ml (set of 4 pcs.). Included 8-9 ml [16 x 100] vacutainer adapters, BN-16/100-16.

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<b>BN-13/75-16</b> BS-010221-OK adapter set  For bucket adapters BA-4/VT optional adapter set (16 pcs) - BN-13/75-16 for vacutainers 2-5 ml [13x75]	<b>BN-13/100-16</b> BS-010221-PK adapter set  For bucket adapters BA-4/VT optional adapter set (16 pcs) - BN-13/100-16 for vacutainers 4-8 ml [13x100]	<b>BN-16/100-16</b> BS-010221-QK adapter set  For bucket adapters BA-4/VT optional adapter set (16 pcs) - BN-16/100-16 for vacutainers 8-10 ml [16x100]	<b>BA-4/RT</b> BS-010221-3K Bucket adapters  Bucket adapters for 4 round bottom centrifuge tubes of 10 ml (set of 4 pcs.)	<b>BA-8/5</b> BS-010221-FK Bucket adapters  Bucket adapters for 8 tubes of 5 ml (set of 4 pcs.)

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<b>BA-14/2U</b> BS-010221-JK Bucket adapters  Bucket adapters for 14 microtest tubes of 2 ml (set of 4 pcs.)	<b>Ri-6</b> BS-010221-HK rotor  Swing-out rotor for conical bottom centrifuge tube. Aluminium buckets.	<b>Ri-6P</b> BS-010221-IK Rotor  Swing-out rotor for conical bottom centrifuge tube. Plastic buckets (POM Kocetal).	<b>BI-25-6</b> BS-010221-VK adapter set  For rotors R-6, R-6P, Ri-6, Ri-6P optional insert set (6 pcs) - BI-25-6 for 25 ml conical tubes	<b>RMT-24</b> BS-010221-BK Rotor  Fixed-angle rotor for 24 - 1.5 or 2 ml microtubes

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<b>Ri-12/15</b> BS-010221-KK Rotor  Swing-out rotor for conical bottom centrifuge tube.	<b>Ri-12/10</b> BS-010221-MK Rotor  Swing-out rotor for round bottom centrifuge tube.	<b>BN-13/75</b> BS-010208-PK adapter set  For rotors R-12/10, Ri-12/10 optional adapter set (12 pcs) - BN-13/75 for vacutainers 2-5 ml [13x75]	<b>BN-13/100</b> BS-010208-QK adapter set  For rotors R-12/10, Ri-12/10 optional adapter set (12 pcs) - BN-13/100 for vacutainers 4-8 ml [13x100]	<b>BN-16/100</b> BS-010208-RK adapter set  For rotors R-12/10, Ri-12/10 optional adapter set (12 pcs) - BN-16/100 for vacutainers 8-10 ml [16x100]



**Ri-24/10**  
BS-010221-LK  
Rotor

Swing-out rotor for round bottom centrifuge tube.



**BN-13/75-24**  
BS-010221-RK  
adapter set

For rotors R-24/10, Ri-24/10 optional adapter set (24 pcs) - BN-13/75-24 for vacutainers 2-5 ml [13x75]



**BN-13/100-24**  
BS-010221-SK  
adapter set

For rotors R-24/10, Ri-24/10 optional adapter set (24 pcs) - BN-13/100-24 for vacutainers 4-8 ml [13x100]



**BN-16/100-24**  
BS-010221-TK  
adapter set

For rotors R-24/10, Ri-24/10 optional adapter set (24 pcs) - BN-16/100-24 for vacutainers 8-10 ml [16x100]



**Ri-2**  
BS-010221-GK  
Rotor

Swing-out rotor for standard 96-well microtitre plates, skirted PCR plates, deepwell plates up to 45mm.



**AP-96**  
BS-010219-DK  
adapter

2 adapters for 96-well semi-skirted and non-skirted PCR plates - made of Ertacetal® C. Autoclavable



**AP-384**  
BS-010219-EK  
adapter

2 adapters for 384-well plates - made of Ertacetal® C. Autoclavable



**Ri-24GC**  
BS-010221-NK  
Rotor

Rotor for 24 Gel Cards for blood group serology testing (Forward Group, Reverse Group, RhD Type and 3 cell antibody screen)



**RR-U**  
BS-010208-UK  
rack for rotors

Rack for rotors

# LMC-3000, Laboratory Centrifuge



## DESCRIPTION

LMC-3000 is a modern low-speed bench-top centrifuge designed for operation with microtest plates and centrifuge tubes up to 50 ml. This device is widely used in biomedical profile laboratories.

Features:

- Soft start and run-down of the rotor;
- User-friendly setting of centrifugation parameters (speed and time) and simultaneous display of both set and actual values;
- Safe operation at any speed is provided by metal protection chamber and case cover, automatic stop at imbalance and a lock keeping the lid closed while the centrifuge is running;
- Rotor selection;
- Setting rotor speed in RPM or RCF;
- Multiple acceleration (Slow, Normal, Fast) and deceleration (0, Slow, Normal, Fast) modes and possibility to switch off forced braking;
- Low noise level;
- Wide choice of accessory rotors.



## SPECIFICATIONS

Speed regulation range for centrifuge tubes	100-3000 rpm (1610 × g)
Speed regulation range for microtitre plates	100-2000 rpm (560 × g)
Speed setting resolution	100 rpm
Digital time setting	1 - 90 min (increment 1 min)
Timer sound signal	+
Rotor imbalance diagnostics (automatic stop, "IMBALANCE" warning)	+
Display	LCD, 2 x 16 signs
Chamber diameter	335 mm
Overall dimensions (W×D×H)	425 x 495 x 235 mm
Weight	11.8 kg
Nominal operating voltage	230 V, 50/60 Hz or 120 V, 50/60 Hz
Power consumption (230V / 120 V)	110 W (0.5 A) / 120 W (1 A)

## CAT. NUMBER

Without rotor	Without rotor
BS-010208-AAA	230VAC 50/60Hz Euro plug
BS-010208-AAB	230VAC 50/60Hz UK plug
BS-010208-AA3	230VAC 50/60Hz AU plug
BS-010208-AAC	100VAC 50/60Hz US plug, 120VAC 60Hz US plug
BS-010208-GK	IQ OQ document
BS-010208-LK	PQ document

## ACCESSORIES



**R-6**  
BS-010208-DK  
rotor

Swing-out rotor for conical bottom centrifuge tube.  
Aluminum buckets.



**R-6P**  
BS-010208-XK  
Rotor

Swing-out rotor for conical bottom centrifuge tube. Plastic buckets (POM Kocetal).



**BI-25-6**  
BS-010221-VK  
adapter set

For rotors R-6, R-6P, Ri-6, Ri-6P optional insert set (6 pcs) - BI-25-6 for 25 ml conical tubes



**R-12/10**  
BS-010208-BK  
Rotor

Swing-out rotor for round bottom centrifuge tube.



**BN-13/75**  
BS-010208-PK  
adapter set

For rotors R-12/10, Ri-12/10 optional adapter set (12 pcs) - BN-13/75 for vacutainers 2-5 ml [13x75]



**BN-13/100**  
BS-010208-QK  
adapter set

For rotors R-12/10, Ri-12/10 optional adapter set (12 pcs) - BN-13/100 for vacutainers 4-8 ml [13x100]



**BN-16/100**  
BS-010208-RK  
adapter set

For rotors R-12/10, Ri-12/10 optional adapter set (12 pcs) - BN-16/100 for vacutainers 8-10 ml [16x100]



**R-12/15**  
BS-010208-EK  
Rotor

Swing-out rotor for conical bottom centrifuge tube.



**R-2**  
BS-010208-AK  
Rotor

Swing-out rotor for standard 96-well microtitre plates, skirted PCR plates, deepwell plates up to 45mm.



**AP-96**  
BS-010219-DK  
adapter

2 adapters for 96-well semi-skirted and non-skirted PCR plates - made of Ertacetal® C. Autoclavable



**AP-384**  
BS-010219-EK  
adapter

2 adapters for 384-well plates - made of Ertacetal® C. Autoclavable



**R-24GC**  
BS-010208-VK  
Rotor

Rotor for 24 Gel Cards for blood group serology testing (Forward Group, Reverse Group, RhD Type and 3 cell antibody screen)



**RR-U**  
BS-010208-UK  
rack for rotors

Rack for rotors



**BN-11/30**  
BS-010208-ZK  
adapter set for rotor R-6P

Spare adapter set for rotor R-6P. Plastic buckets (POM Kocetal) (6 pcs).



**BN-16/90**  
BS-010208-SK  
adapter set for rotor R-12/10 R-24/10

Spare adapter set for rotor R-12/10, R-24/10. Plastic buckets (12 pcs).



**BN-17/120**  
BS-010208-TK  
adapter set for rotor R-12/15

Spare adapter set for rotor R-12/15. Plastic buckets (12 pcs).

# LMC-4200R, Refrigerated Laboratory Centrifuge



## ■ DESCRIPTION

Laboratory bench-top centrifuge with refrigeration LMC-4200R provides temperature control of biomaterial during centrifugation. Temperature control of the so-called "cold-shelf" is a gold standard for enzymologists and cell biologists because it ensures conditions necessary for reproducibility of the sample preparation stage. Temperature control absence at this stage can cause unpredictable results.

LMC-4200R is a modern centrifuge designed for operation with microtest plates, gel cards and tubes from 10 to 50 ml.

Features:

- Soft start and run-down of the rotor;
- Efficient rate of chamber refrigeration: under 10 min;
- Maintenance of stable temperature during operation;
- User-friendly setting of centrifugation parameters (speed, temperature, time) and simultaneous display of both set and actual values;
- Safe operation is provided by a metal protection chamber and a case cover, automatic stop at imbalance (emergency shutdown, "IMBALANCE" displayed) and a lock keeping the lid closed while the centrifuge is running.
- Rotor selection;
- Setting rotor speed in RPM or RCF;
- Multiple acceleration (Slow, Normal, Fast) and deceleration (0, Slow, Normal, Fast) modes and possibility to switch off forced braking;
- Low noise level;
- Wide choice of accessory rotors.



## ■ CAT. NUMBER

Without rotor	Without rotor
BS-010212-AAA	230VAC 50/60Hz Euro plug
BS-010212-AAB	230VAC 50/60Hz UK plug
BS-010212-AA3	230VAC 50/60Hz AU plug
BS-010212-EK	IQ OQ document
BS-010212-FK	PQ document

## ■ SPECIFICATIONS

Temperature control range	-10°C ... +25°C
Stable temperature maintenance range	25°C below ambient ... to +25°C
Temperature setting resolution	1°C
Speed regulation range for centrifuge tubes	100–4200 rpm  (3160 × g)
Speed regulation range for microtitre plates	100-2000 rpm  (560 × g)
Speed setting resolution	100 rpm
Digital time setting	1 - 90 min (increment 1 min)
Timer sound signal	+
Rotor imbalance diagnostics (automatic stop, "IMBALANCE" warning)	+
Display	LCD, 2 lines
Chamber diameter	360 mm
Overall dimensions (W×D×H)	635x580x335 mm
Weight	56 kg
Nominal operating voltage	230 V, 50 Hz
Power consumption (230V / 120 V)	990 W (4.3 A) / -

## ACCESSORIES



**R-6**  
BS-010208-DK  
rotor

Swing-out rotor for conical bottom centrifuge tube.  
Aluminium buckets.



**R-6P**  
BS-010208-XK  
Rotor

Swing-out rotor for conical bottom centrifuge tube. Plastic buckets (POM Kocetal).



**BI-25-6**  
BS-010221-VK  
adapter set

For rotors R-6, R-6P, Ri-6, Ri-6P optional insert set (6 pcs) - BI-25-6 for 25 ml conical tubes



**RMT-24**  
BS-010221-BK  
Rotor

Fixed-angle rotor for 24 - 1.5 or 2 ml microtubes



**R-12/10**  
BS-010208-BK  
Rotor

Swing-out rotor for round bottom centrifuge tube.



**BN-13/75**  
BS-010208-PK  
adapter set

For rotors R-12/10, Ri-12/10 optional adapter set (12 pcs) - BN-13/75 for vacutainers 2-5 ml [13x75]



**BN-13/100**  
BS-010208-QK  
adapter set

For rotors R-12/10, Ri-12/10 optional adapter set (12 pcs) - BN-13/100 for vacutainers 4-8 ml [13x100]



**BN-16/100**  
BS-010208-RK  
adapter set

For rotors R-12/10, Ri-12/10 optional adapter set (12 pcs) - BN-16/100 for vacutainers 8-10 ml [16x100]



**R-24/10**  
BS-010212-JK  
Rotor

Swing-out rotor for round bottom centrifuge tube.



**BN-13/75-24**  
BS-010221-RK  
adapter set

For rotors R-24/10, Ri-24/10 optional adapter set (24 pcs) - BN-13/75-24 for vacutainers 2-5 ml [13x75]



**BN-13/100-24**  
BS-010221-SK  
adapter set

For rotors R-24/10, Ri-24/10 optional adapter set (24 pcs) - BN-13/100-24 for vacutainers 4-8 ml [13x100]



**BN-16/100-24**  
BS-010221-TK  
adapter set

For rotors R-24/10, Ri-24/10 optional adapter set (24 pcs) - BN-16/100-24 for vacutainers 8-10 ml [16x100]



**R-12/15**  
BS-010208-EK  
Rotor

Swing-out rotor for conical bottom centrifuge tube.



**R-2**  
BS-010208-AK  
Rotor

Swing-out rotor for standard 96-well microtitre plates, skirted PCR plates, deepwell plates up to 45mm.



**AP-96**  
BS-010219-DK  
adapter

2 adapters for 96-well semi-skirted and non-skirted PCR plates - made of Ertacetal® C. Autoclavable



**AP-384**  
BS-010219-EK  
adapter  
2 adapters for 384-well plates -  
made of Ertacetal® C.  
Autoclavable



**R-24GC**  
BS-010208-VK  
Rotor

Rotor for 24 Gel Cards for blood  
group serology testing (Forward  
Group, Reverse Group, RhD  
Type and 3 cell antibody  
screen)



**RR-U**  
BS-010208-UK  
rack for rotors

Rack for rotors



**BN-11/30**  
BS-010208-ZK  
adapter set for rotor R-6P  
Spare adapter set for rotor R-  
6P. Plastic buckets (POM  
Kocetal) (6 pcs).



**BN-16/90**  
BS-010208-SK  
adapter set for rotor R-12/10 R-  
24/10  
Spare adapter set for rotor R-  
12/10, R-24/10. Plastic buckets  
(12 pcs).



**BN-17/120**  
BS-010208-TK  
adapter set for rotor R-12/15  
Spare adapter set for rotor R-  
12/15. Plastic buckets (12 pcs).

# Microspin 12 Plus, High-speed Mini-centrifuge

## DESCRIPTION

High-speed mini-centrifuge **Microspin 12 Plus** is a compact desktop centrifuge designed for biomedical laboratories.

**Microspin 12 Plus** is used for extracting RNA/DNA samples, sedimentation of biological components, biochemical and chemical analysis of microsamples.

A brushless motor provides noiseless performance at the maximal speed and long service life. An angular rotor is designed for accommodation of 12 Eppendorf microtubes and spin columns. The rotor is made of aluminium, it is equipped with fixing lid and included in the standard specification of the centrifuge. Constant airflow around the rotor reduces risk of samples overheating during operation.

Metal protective inserts inside the casing and lid, automatic imbalance switch-off and locking of a lid provide safe operation. Completion of centrifugation is indicated by a sound signal.

The external power supply unit allows operation of **Microspin 12 Plus** in cold rooms (at ambient temperatures from +4°C to +40°C).

Standard set:

Rotor **MSR-12** (12 places for microtubes 1.5/2 ml, spin columns) with protection lid **MSL-12** and adapters A-02, A-05

A-02 adapter 12 pieces for microtubes 0.2 ml

A-05 adapter 12 pieces for microtubes 0.5 ml

## SPECIFICATIONS

Speed control range	1000 - 16250 rpm (increment 100 rpm)
Relative centrifugal force control range	53 – 15 588 × g
Digital time setting	15 s – 90 min (increment 15 s - 1 min)
Timer sound signal	+
Rotor imbalance diagnostics (automatic stop, "IMBALANCE" warning)	+
Quick spin button	+
Acceleration time up to 16,250 rpm	24 s
Slowdown time, not more	10 s
Display	LCD, 2 x 16 signs
Overall dimensions (W×D×H)	200x240x125 mm
Weight	3.5 kg
Input current/power consumption	24 V, 2.5 A / 60 W
External power supply	Input AC 100–240 V 50/60 Hz, Output DC 24 V



## CAT. NUMBER

Including MSL-SC lid, adapters A-02, A-05	Including MSL-SC lid, adapters A-02, A-05
BS-010218-AA1	230VAC 50/60Hz Euro plug
BS-010218-AA2	230VAC 50/60Hz UK plug
BS-010218-AA3	230VAC 50/60Hz AU plug
BS-010218-AA4	100VAC 50/60Hz US plug, 120VAC 60Hz US plug
BS-010218-BK	IQ OQ document
BS-010218-CK	PQ document

## ACCESSORIES



**A-02**  
BS-010213-BK  
adapter

Adapter 12 pieces for  
microtubes 0.2 ml



**A-05**  
BS-010213-AK  
adapter

Adapter 12 pieces for  
microtubes 0.5 ml



**MSR-16**  
BS-010218-AK

Rotor for two 8 x 0.2 ml  
PCR strip rows or 16  
individual 0.2 ml PCR  
tubes.