

Technical Specifications

	AS 60/220.X2 PLUS	AS 62.X2 PLUS	AS 82/220.X2 PLUS	AS 120.X2 PLUS
Maximum capacity [Max]	60 g / 220 g	62 g	82 g / 220 g	120 g
Minimum load	1 mg	1 mg	1 mg	1 mg
Readability [d]	0.01 mg / 0.1 mg	0.01 mg	0.01 mg / 0.1 mg	0.01 mg
Verification scale interval [e]	1 mg	1 mg	1 mg	1 mg
Tare range	-220 g	-62 g	-220 g	-120 g
Standard values				
Repeatability(5% Max)*	0.012 mg	0,01 mg	0.012 mg	0.012 mg
Repeatability(Max)*	0.07 mg	0.017 mg	0.07 mg	0.03 mg
Minimum weight (USP)	24 mg	20 mg	24 mg	24 mg
Minimum weight (U=1%, k=2)	2.4 mg	2.0 mg	2.4 mg	2.4 mg
Permissible values				
Repeatability(5% Max)*	0.02 mg	0.018 mg	0.02 mg	0.02 mg
Repeatability(Max)*	0.1 mg	0.03 mg	0.1 mg	0.05 mg
Linearity	± 0.05 mg / ±0.2 mg	± 0.05 mg	± 0.05 mg / ±0.2 mg	± 0,05 mg
Stabilization time***	2 s	2 s	2 s	2 s
Adjustment	internal	internal	internal	internal
Verification	Yes	Yes	Yes	Yes
OIML Class	I	I	I	I
Display	5" capacitive colour touch screen	5" capacitive colour touch screen	5" capacitive colour touch screen	5" capacitive colour touch screen
Keypad	6 keys	6 keys	6 keys	6 keys
Protection class	IP 43	IP 43	IP 43	IP 43
Databases	7	7	7	7
Touch-free operation	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors
USB-A	1	1	1	1
USB-B	1	1	1	1
RS 232	1	1	1	1
DB9	Tare and Print External Buttons	Tare and Print External Buttons	Tare and Print External Buttons	Tare and Print External Buttons
Wi-Fi®	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
Ethernet	10 / 100 Mbit	10 / 100 Mbit	10 / 100 Mbit	10 / 100 Mbit
Power supply	12 ÷ 16 V DC	12 ÷ 16 V DC	12 ÷ 16 V DC	12 ÷ 16 V DC
Power consumption	4 W	4 W	4 W	4 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C
Weighing pan dimensions	ø 90 mm open-work ø 85 mm standard (option)*****	ø 90 mm open-work ø 85 mm standard (option)*****	ø 90 mm open-work ø 85 mm standard (option)*****	ø 90 mm open-work ø 85 mm standard (option)*****
Weighing chamber dimensions	160 × 168 × 223 mm	160 × 168 × 223 mm	160 × 168 × 223 mm	160 × 168 × 223 mm
Weighing device dimensions	333 × 206 × 355 mm	333 × 206 × 355 mm	333 × 206 × 355 mm	333 × 206 × 355 mm
Net weight	5.3 kg	5.3 kg	5.3 kg	5,3 kg
Gross weight	7.3 kg	7.3 kg	7.3 kg	7,3 kg
Packaging dimensions	495 × 400 × 515 mm	495 × 400 × 515 mm	495 × 400 × 515 mm	495 × 400 × 515 mm

* repeatability is expressed as a standard deviation from: 10 weighing cycles

** parameter determined in the following temperature range: +15 ÷ +35 °C

*** stabilization time depends on external conditions and dynamics of placing loads on a pan, determined for FAST profile

**** non-condensing conditions

***** ø 85 mm standard weighing pan on purchase order

Values of parameters provided in Technical Specifications table, have been determined under stable laboratory conditions. Due to ambient conditions impact or/and balance setup, the above parameters may vary for environments other than laboratory.

Wi-Fi® is a registered trademark of Wi-Fi® Alliance.

Technical Specifications

	AS 110.X2 PLUS	AS 160.X2 PLUS	AS 220.X2 PLUS	AS 310.X2 PLUS
Maximum capacity [Max]	110 g	160 g	220 g	310 g
Minimum load	10 mg	10 mg	10 mg	10 mg
Readability [d]	0.1 mg	0.1 mg	0.1 mg	0.1 mg
Verification scale interval [e]	1 mg	1 mg	1 mg	1 mg
Tare range	-110 g	-160 g	-220 g	-310 g
Standard values				
Repeatability(5% Max)*	0.05 mg	0.06mg	0.06 mg	0.07 mg
Repeatability(Max)*	0.06 mg	0.07 mg	0.07 mg	0.1 mg
Minimum weight (USP)	100 mg	120 mg	120 mg	140 mg
Minimum weight (U=1%, k=2)	10 mg	12 mg	12 mg	14 mg
Permissible values				
Repeatability(5% Max)*	0.09 mg	0.09 mg	0.09 mg	0.12 mg
Repeatability(Max)*	0.1 mg	0.1 mg	0.1 mg	0.15 mg
Linearity	± 0.2 mg	± 0.2 mg	± 0.2 mg	± 0.3 mg
Stabilization time***	2 s	2 s	2 s	2.5 s
Adjustment	internal	internal	internal	internal
Verification	Yes	Yes	Yes	Yes
OIML Class	I	I	I	I
Display	5" capacitive colour touch screen	5" capacitive colour touch screen	5" capacitive colour touch screen	5" capacitive colour touch screen
Keypad	6 keys	6 keys	6 keys	6 keys
Protection class	IP 43	IP 43	IP 43	IP 43
Databases	7	7	7	7
Touch-free operation	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors	2 programmable proximity sensors
USB-A	1	1	1	1
USB-B	1	1	1	1
RS 232	1	1	1	1
DB9	Tare and Print External Buttons	Tare and Print External Buttons	Tare and Print External Buttons	Tare and Print External Buttons
Wi-Fi®	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n	802.11 b/g/n
Ethernet	10 / 100 Mbit	10 / 100 Mbit	10 / 100 Mbit	10 / 100 Mbit
Power supply	12 ÷ 16 V DC	12 ÷ 16 V DC	12 ÷ 16 V DC	12 ÷ 16 V DC
Power consumption	4 W	4 W	4 W	4 W
Operating temperature	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%	40 ÷ 80%
Transport and storage temperature	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C	-20 ÷ +50 °C
Weighing pan dimensions	ø 100 mm	ø 100 mm	ø 100 mm	ø 100 mm
Weighing chamber dimensions	160 × 168 × 227 mm	160 × 168 × 227 mm	160 × 168 × 227 mm	160 × 168 × 227 mm
Weighing device dimensions	333 × 206 × 355 mm	333 × 206 × 355 mm	333 × 206 × 355 mm	333 × 206 × 355 mm
Net weight	5.3 kg	5.3 kg	5.3 kg	5.3 kg
Gross weight	7.3 kg	7.3 kg	7.3 kg	7.3 kg
Packaging dimensions	495 × 400 × 515 mm	495 × 400 × 515 mm	495 × 400 × 515 mm	495 × 400 × 515 mm

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*** stabilization time depends on external conditions and dynamics of placing loads on a pan, determined for FAST profile

**** non-condensing conditions

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Technical Specifications

AS 520.X2 PLUS	
Maximum capacity [Max]	520 g
Minimum load	—
Readability [d]	0.1 mg
Verification scale interval [e]	—
Tare range	-520 g
Standard values	
Repeatability(5% Max)*	0.07 mg
Repeatability(Max)*	0.2 mg
Minimum weight (USP)	140 mg
Minimum weight (U=1%, k=2)	14 mg
Permissible values	
Repeatability(5% Max)*	0.12 mg
Repeatability(Max)*	0.4 mg
Linearity	± 0.4 mg
Stabilization time***	2.5 s
Adjustment	internal
Verification	—
OIML Class	—
Display	5" capacitive colour touch screen
Keypad	6 keys
Protection class	IP 43
Databases	7
Touch-free operation	2 programmable proximity sensors
USB-A	1
USB-B	1
RS 232	1
DB9	Tare and Print External Buttons
Wi-Fi®	802.11 b/g/n
Ethernet	10 / 100 Mbit
Power supply	12 ÷ 16 V DC
Power consumption	4 W
Operating temperature	+10 ÷ +40 °C
Atmospheric humidity****	40 ÷ 80%
Transport and storage temperature	-20 ÷ +50 °C
Weighing pan dimensions	ø 100 mm
Weighing chamber dimensions	160 × 168 × 227 mm
Weighing device dimensions	333 × 206 × 355 mm
Net weight	5.3 kg
Gross weight	7.3 kg
Packaging dimensions	495 × 400 × 515 mm

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** parameter determined in the following temperature range: +15 ÷ +35 °C

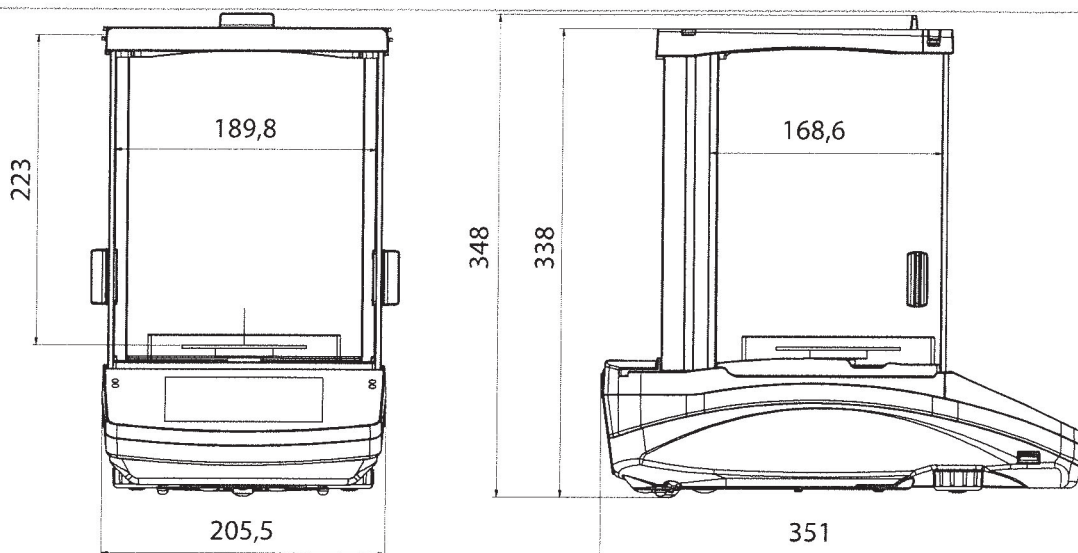
*** stabilization time depends on external conditions and dynamics of placing loads on a pan, determined for FAST profile

**** non-condensing conditions

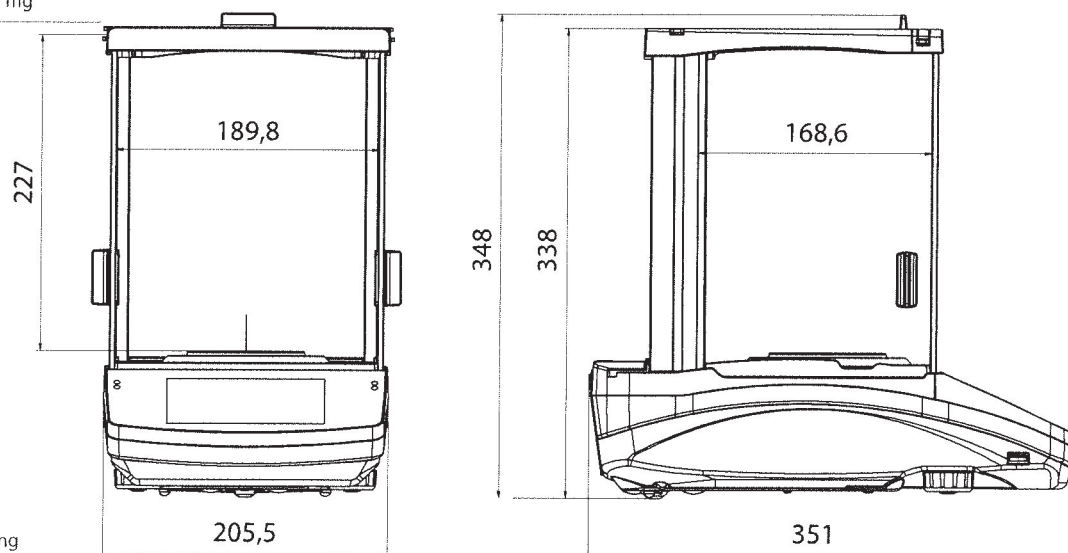
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Dimensions



AS X2 PLUS, d = 0.01 mg



AS X2 PLUS, d = 0.1 mg

Accessories

Weighing Tables

- granite antivibration table
- antivibration tables for laboratory balances
- professional weighing table

Professional Weighing

- laboratory ware holders· KIT 85 density determination kit
- under-hook weighing rack

Ambient Conditions

- DJ-04 anti-static ioniser

Peripheral Devices

- label printer
- receipt printer
- Epson dot matrix printer
- barcode scanners
- WD-6 LCD display

Cables, Converters

- P0108: RS 232 cable (balance-computer)
- P0151: RS 232 cable (balance - Epson printer)
- USB cable type A-B

Draft shields and anti-draft chambers

- protective cover for X2 series indicator

Electrical Accessories

- ZR-02 power supply with battery

Dedicated Software

R-LAB

- collecting measurements
- carrying out statistical analysis of measurements
- customized graphs and reports

E2R Weighing Records

- complete, automated databases synchronization
- fully supported processes of labelling and parts counting
- record of weighings, weighings archiving
- basic and advanced (with graphs) reports

Alibi Reader

- readout of data saved to Alibi memory
- export of data saved to Alibi memory
- data filtering and reports generating
- saving ALIBI database to CSV file

R.Barcode

- The basic function software is presentation of the data sent by barcode scanners connected to PC via USB or RS232

RAD KEY

- Establishing cooperation between a weighing instrument and a computer

Radwag Development Studio

- presentation of functions (and subfunctions) of communication protocol (Common Communication Protocol)
- possibility of connection with weighing equipment on which each

function is carried out,

- library with mass control, contained within the development environment
- complete documentation of the communication protocol
- set of user manuals for different solutions addressed for programmers employed in companies using RADWAG-manufactured weighing equipment

RADWAG Connect

- establishing communication with all balances, scales and weighing modules using Common Communication Protocol
- communication via local network,
- support of basic functions
- auto searching for devices
- connecting with few devices simultaneously, swapping between them
- clear list of connected platforms
- record of measurements in the program,
- export of carried out measurements to CSV file,
- work performed using freely selected device with Windows 10 operating system

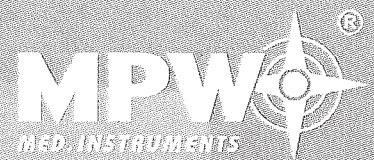
LabView Driver

- operation of RADWAG balances in LabView environment

MPW-260

MPW-260R

MPW-260RH



PDF



FEATURES

effective ventilation system [MPW-260]

with cooling [MPW-260R]

with cooling and heating [MPW-260RH]

temperature +4°C ensured for maximum speed of each rotor [MPW-260R; MPW-260RH]

delayed start function

start when preselected temperature is reached [MPW-260R; MPW-260RH]

initial cooling without/with centrifuging, cooling after centrifuging, precise temperature stabilization [MPW-260R; MPW-260RH]

maintenance-free induction motor

modern software system

large graphic LCD [MPW-260RH] - blanking the screen after a period of inactivity

preselected and real values of speed, RCF, time shown on the display at the same time [MPW-260]

preselected and real values of speed, RCF, time and temperature shown on the display at the same time [MPW-260R; MPW-260RH]

100 user programs

10 acceleration/deceleration curves

programming of multi-section acceleration/deceleration curves

RPM/RCF adjustment

two modes of time calculation: from start key pressing or from reaching preselected speed

continuous operation mode - HOLD

SHORT time operation mode

manual centrifugal radius adjustment [with automatic RCF correction]

possibility of changing of parameters during centrifuging

automatic rotor identification

automatic lid opening

centrifuging parameters recording - MPW Editor - PC computer [USB]

menu language setting [PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ]

selected functions blocking, password protection

manual adjustment of density of samples > 1,2g/cm³ [with automatic maximum speed correction]

stainless steel rotor chamber

SAFETY

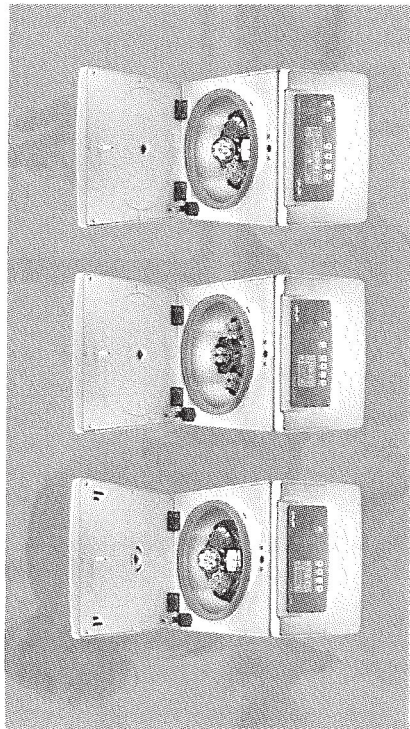
unbalance sensor

lid locking during rotor running

start blocking at opened lid

emergency lid lock release

product conforming with the EN-61010-1 and EN-61010-2-020, EN-61010-2-101 standards














Model	Capacity	Max. Speed (RPM)	Max. RCF	Max. Volume	Max. Weight	Max. Tube Length	Max. Tube Diameter	Max. Tube Volume	Max. Tube Weight	Max. Tube Material	Max. Tube Type
MPW-250	250 ml	2500	1100	250 ml	250 g	100 mm	16 mm	250 ml	250 g	Polystyrene	Universal
MPW-250	250 ml	2500	1100	250 ml	250 g	100 mm	16 mm	250 ml	250 g	Polystyrene	Universal
MPW-250	250 ml	2500	1100	250 ml	250 g	100 mm	16 mm	250 ml	250 g	Polystyrene	Universal











MPW-250, MPW-250R and PW-250R centrifuge is a family of universal table-top centrifuges. The accuracy of set-point temperature parameters with the possibility of their automatic identification. The accuracy of set-point RCF (above 10,000 x g) and low speed rotational errors (RPE below 0.200 x g), as well as the variety of accessories allow the centrifugation of samples from 0.2 ml to 100 ml (including hematology centrifuges). Thus, centrifuges are used, among others, in clinical laboratories and university laboratories for: blood preparatory procedures and analysis in medical and veterinary laboratories, in molecular biology for: isolation, purification and quantification of the quality of DNA and RNA, nucleic acids in scientific and microbiological laboratories, for sewage sludge in plants, and many others.

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Model	Capacity	Max. Speed (RPM)	Max. RCF	Max. Volume	Max. Weight	Max. Tube Length	Max. Tube Diameter	Max. Tube Volume	Max. Tube Weight	Max. Tube Material	Max. Tube Type
18,000	24,770	17,471.566	11,819	18,000	18,000 g	100 mm	16 mm	18,000 ml	18,000 g	Polystyrene	Universal
5,000	4,221	8 x 10 ⁴	1,223	5,000	5,000 g	100 mm	16 mm	5,000 ml	5,000 g	Polystyrene	Universal
14,000	15,665	17 x 10 ⁴	11,215	14,000	14,000 g	100 mm	16 mm	14,000 ml	14,000 g	Polystyrene	Universal
6,000	4,226	10 x 10 ⁴	1,127	6,000	6,000 g	100 mm	16 mm	6,000 ml	6,000 g	Polystyrene	Universal
15,100	21,158	24 x 10 ⁴	11,461	15,100	15,100 g	100 mm	16 mm	15,100 ml	15,100 g	Polystyrene	Universal
14,000	17,149	36 x 10 ⁴	11,462	14,000	14,000 g	100 mm	16 mm	14,000 ml	14,000 g	Polystyrene	Universal
4,500	3,011	30 x 10 ⁴	1,150	4,500	4,500 g	100 mm	16 mm	4,500 ml	4,500 g	Polystyrene	Universal
14,000	15,339	10 x 10 ⁴	11,715	14,000	14,000 g	100 mm	16 mm	14,000 ml	14,000 g	Polystyrene	Universal
14,000	15,339	40 x 10 ⁴	11,715	14,000	14,000 g	100 mm	16 mm	14,000 ml	14,000 g	Polystyrene	Universal
5,500	5,004	6 x 10 ⁴	11,715	5,500	5,500 g	100 mm	16 mm	5,500 ml	5,500 g	Polystyrene	Universal
5,500	4,056	17 x 10 ⁴	11,760	5,500	5,500 g	100 mm	16 mm	5,500 ml	5,500 g	Polystyrene	Universal
5,000	4,226	8 x 10 ⁴	11,761	5,000	5,000 g	100 mm	16 mm	5,000 ml	5,000 g	Polystyrene	Universal
4,500	2,717	17 x 10 ⁴	11,761	4,500	4,500 g	100 mm	16 mm	4,500 ml	4,500 g	Polystyrene	Universal
4,500	2,717	17 x 10 ⁴	11,761	4,500	4,500 g	100 mm	16 mm	4,500 ml	4,500 g	Polystyrene	Universal
5,000	3,544	24 x 10 ⁴	11,765	5,000	5,000 g	100 mm	16 mm	5,000 ml	5,000 g	Polystyrene	Universal
5,000	4,027	6 x 10 ⁴	11,766	5,000	5,000 g	100 mm	16 mm	5,000 ml	5,000 g	Polystyrene	Universal
14,000	22,625	24 x 10 ⁴	11,766	14,000	14,000 g	100 mm	16 mm	14,000 ml	14,000 g	Polystyrene	Universal
12,000	13,665	20 x 10 ⁴	11,862	12,000	12,000 g	100 mm	16 mm	12,000 ml	12,000 g	Polystyrene	Universal
12,000	11,664	12 x 10 ⁴	11,864	12,000	12,000 g	100 mm	16 mm	12,000 ml	12,000 g	Polystyrene	Universal
4,000	2,256	7 x 10 ⁴	12,000	4,000	4,000 g	100 mm	16 mm	4,000 ml	4,000 g	Polystyrene	Universal
3,000	616	2 x 10 ⁴	12,218	3,000	3,000 g	100 mm	16 mm	3,000 ml	3,000 g	Polystyrene	Universal
13,000	15,616	24 x 10 ⁴	12,266	13,000	13,000 g	100 mm	16 mm	13,000 ml	13,000 g	Polystyrene	Universal

MPW-250, MPW-250R and PW-250R centrifuge is a family of universal table-top centrifuges. The accuracy of set-point temperature parameters with the possibility of their automatic identification. The accuracy of set-point RCF (above 10,000 x g) and low speed rotational errors (RPE below 0.200 x g), as well as the variety of accessories allow the centrifugation of samples from 0.2 ml to 100 ml (including hematology centrifuges). Thus, centrifuges are used, among others, in clinical laboratories and university laboratories for: blood preparatory procedures and analysis in medical and veterinary laboratories, in molecular biology for: isolation, purification and quantification of the quality of DNA and RNA, nucleic acids in scientific and microbiological laboratories, for sewage sludge in plants, and many others.

	S-LINE				M-LINE				
									
	MPW-54	MPW-55	MPW-56	MPW-150R	M-BASIC	M-UNIVERSAL	M-DIAGNOSTIC	M-SCIENCE	MPW-260
	120 ml	48 ml	120 ml	90 ml	120 ml / PRP	500 ml	500 ml	100 ml	500 ml
RCP max.	1 137,3 122 x g	15 279 x g	3 341 x g	21 382 x g	2 469 x g	24 270 x g	4 830 x g	24 270 x g	24 270 x g
RPM max.	3 500, 5 600	14 500	6 000	15 000	4 000	18 000	6 000	18 000	18 000
	-	-	-	-20°C ÷ +40°C	-	-	-	-	-
Number of rotors (angle swing-out)	3/0	3/1	4/0	7/1	1	19/4	8/5	8/1	19/3
Rotor auto-recognition	-	-	-	•	-	•	•	•	•
Language	EN	EN	EN	PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ	EN	PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ	PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ	PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ	PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ
Cover tightening	-	-	-	-	-	-	-	-	-
User programs	-	9	-	100	5	100	100	100	100

	M-LINE		L-LINE				XL-LINE	
								
	MPW-260R	MPW-260RH	MPW-351e	MPW-352	MPW-352R	MPW-352RH	MPW-380	MPW-380R
	500 ml	500 ml	800 ml	1 000 ml	1 000 ml	1 000 ml	3 000 ml	3 000 ml
RCP max.	24 270 x g	24 270 x g	3 509 x g	29 703 x g	30 065 x g	30 065 x g	31 876 x g	31 876 x g
RPM max.	18 000	18 000	4 500	18 000	18 000	18 000	18 000	18 000
	-20°C ÷ +40°C	-20°C ÷ +55°C	-	-	-20°C ÷ +40°C	-20°C ÷ +55°C	-	-20°C ÷ +40°C
Number of rotors (angle swing-out)	19/3	19/3	4/3	27/7	27/7	27/7	13/4	13/4
Rotor auto-recognition	•	•	-	•	•	•	•	•
Language	PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ	PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ	EN	PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ	PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ	PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ	PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ	PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ
Cover tightening	-	-	-	•	•	•	•	•
User programs	100	100	-	100	100	100	100	100



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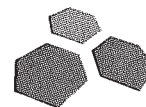
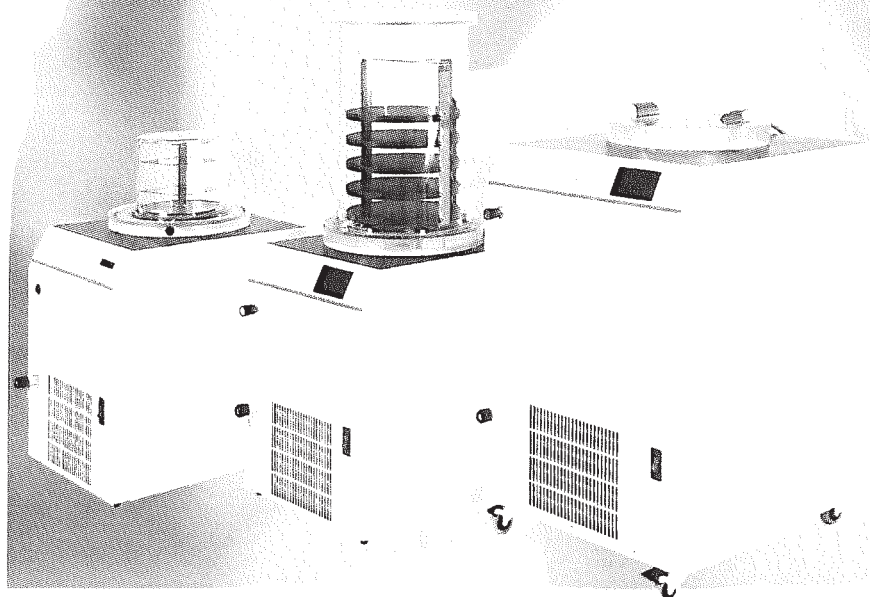
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**INCREASE YOUR
LAB EFFICIENCY**

CoolSafe
Freeze Dryers
4-15 Litres

Scandinavian by Design



LABOGENE

COOLSAFE 4-15 LITRES

CoolSafe 4-15 L is an outstanding and versatile range of advanced bench-top freeze dryers. They are the product of more than 40 years' experience and expertise, and are the ideal choice for research, process development and small-scale production.

Available in 3 different capacities:

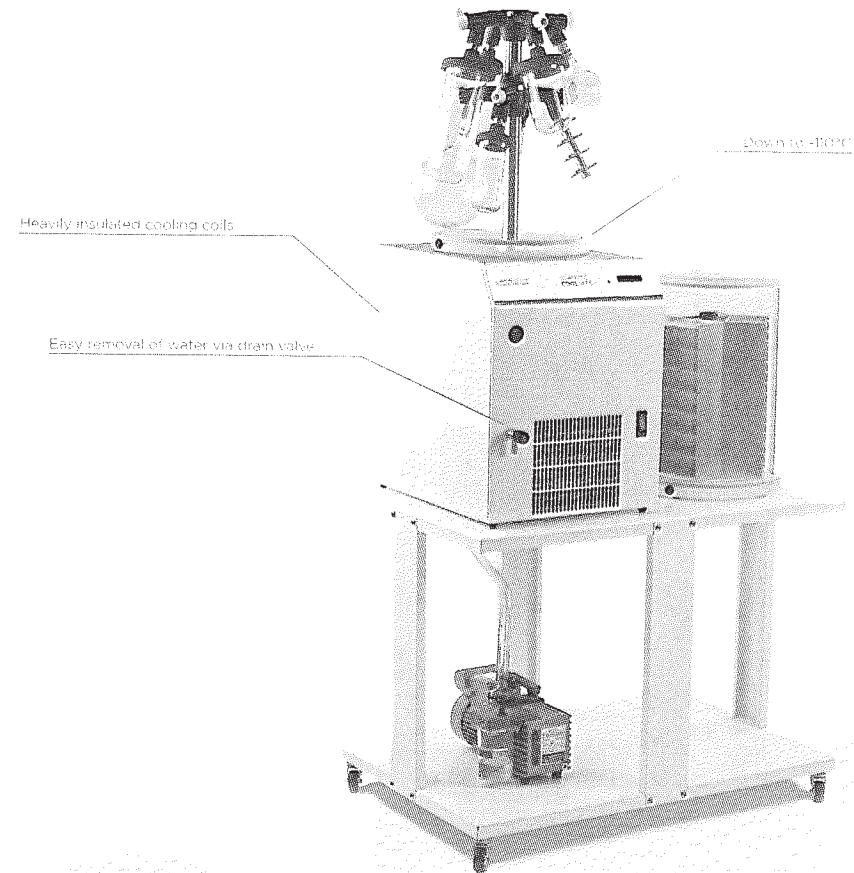
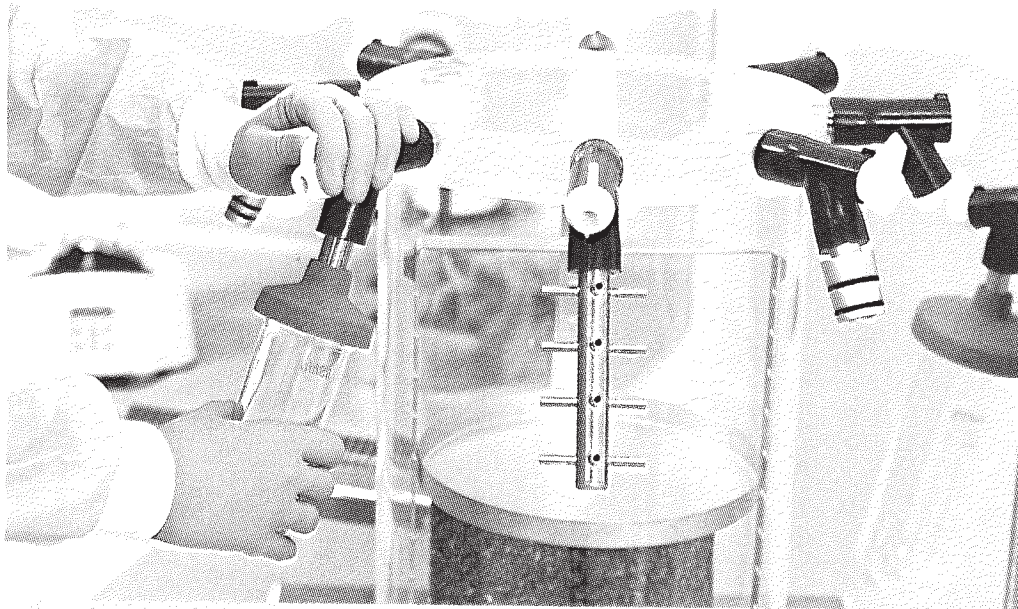
- 4 litres.
- 9 litres.
- 15 litres.

All come with a choice of condenser temperatures and a wide range of high-quality chambers and accessories. All models offer both simplicity of operation and the highest performance characteristics to meet the demands of today's research and development laboratories.

Proven track record in:

- Quality control – typically for:
 - Food materials.
 - Bacteria.
 - Meat and dairy products.
- Improved preservation – typically for:
 - Floral materials.
 - Vaccines and anti-toxins.
 - Tissues and cells.
 - Fish, shellfish, milk (such as goat & horse milk) and dairy products, vegetables, edible mycelia, soft fruits and berries etc.
- Conservation of archaeological items, such as wood, leather, textiles etc.
- Restoration of water-damaged books, documents and paper materials.

The CoolSafe 4-15 L range is suitable for research, testing and production on a minor scale.

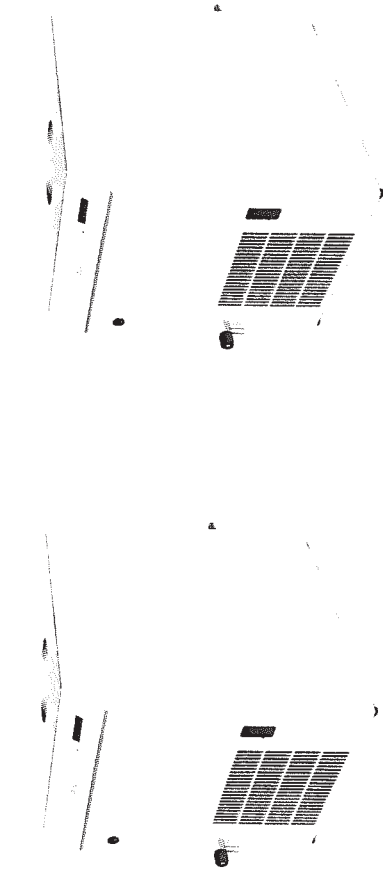


What LaboGene's freeze dryers offer:

- Lowest condenser temperatures of -55°C , -95°C , -100°C or -110°C .
- Seamless stainless steel condenser with external cooling coils, heavily insulated to conserve energy and increase performance.
- Easy draining with built-in valve, allowing removal of defrost water and/or solvents after a completed freeze-drying session.
- Easy operation with a built-in vacuum valve connecting the condenser and vacuum pump and allowing the condenser to cool down and the vacuum pump to warm up separately, ensuring an efficient start-up sequence.

MEET THE COOLSAFE FAMILY

LaboGene's 4-15 L freeze dryers are available in 4 variants: Basic, Pro, Touch and Superior XS/XL, designed to meet the demands of laboratories of all types.

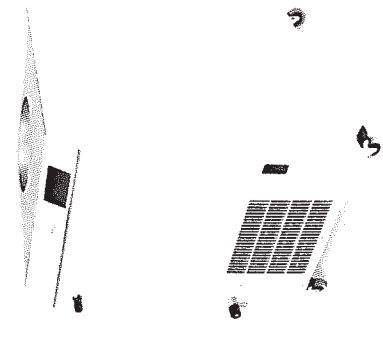


COOLSAFE BASIC

- Digital display of the condenser temperature.
- Wide choice of small chambers, manifolds and accessories to suit your sample requirements.
- Available with 4-litre condenser capacity and temperature options of -55°C or -100°C and condenser ice capacity of 2.5 kg/24 hours - max. 3 kg in total.
- Available with 9-litre condenser capacity and temperature options of -55°C or -100°C and condenser ice capacity of 4 kg/24 hours - max. 7 kg in total.

COOLSAFE PRO

- Digital display of the condenser temperature and pressure.
- Wide choice of manifolds, chambers and accessories to suit your sample requirements.
- Available with 4-litre condenser capacity and temperature options of -55°C or -100°C and condenser ice capacity of 2.5 kg/24 hours - max. 3 kg in total.
- Available with 9-litre condenser capacity and temperature options of -55°C or -100°C and condenser ice capacity of 4 kg/24 hours - max. 7 kg in total.
- Available with 15-litre condenser capacity and temperature options of -55°C or -100°C and condenser ice capacity of 6 kg/24 hours - max. 10 kg in total.



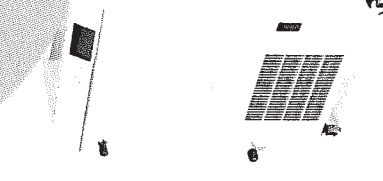
COOLSAFE TOUCH

- New touchscreen controller with regulation of temperature, pressure and time.
- Freeze-drying with programming and storage of protocols for full research and method development.
- Wide choice of manifolds, chambers with heated shelves and accessories to suit your sample requirements.
- Available with 4-litre condenser capacity and temperature options of -55°C or -100°C and condenser ice capacity of 2.5 kg/24 hours - max. 3 kg in total.
- Available with 9-litre condenser capacity and temperature options of -55°C or -100°C and condenser ice capacity of 4 kg/24 hours - max. 7 kg in total.
- Available with 15-litre condenser capacity and temperature options of -55°C or -100°C and condenser ice capacity of 6 kg/24 hours - max. 10 kg in total.

COOLSAFE SUPERIOR XS/XL

- New touchscreen controller with regulation of temperature, pressure and time.
- Possibility of freeze-drying your samples.
- Freeze-drying with programming and storage of protocols for full research and method development.
- With the automatic system, it is possible to create your own personal program for each sample - starting with pre-cooling, then primary drying and ending with secondary drying. This ensures the highest performance and ensures that the quality of your samples will be the same every time.
- The XS variant is inclusive of a 3 electrical heated shelf rack for pre-freezing inside the condenser. For the XL version you can choose between a 3 or a 5 electrical heated shelf rack.
- PT sensors for precise shelf temperature regulation.
- XS is available with a 4-litre condenser and a temperature option of -100°C and condenser ice capacity of 1 kg/24 hours.
- XL is available with a 15-litre condenser and a temperature option of -95°C and condenser ice capacity of 2 kg/24 hours.

Need a
customized solution?
For more information visit
www.labogene.com



We stand ready to meet your freeze dryer needs with our efficient solutions



We have the
FREEZE DRYER
FOR YOUR NEEDS

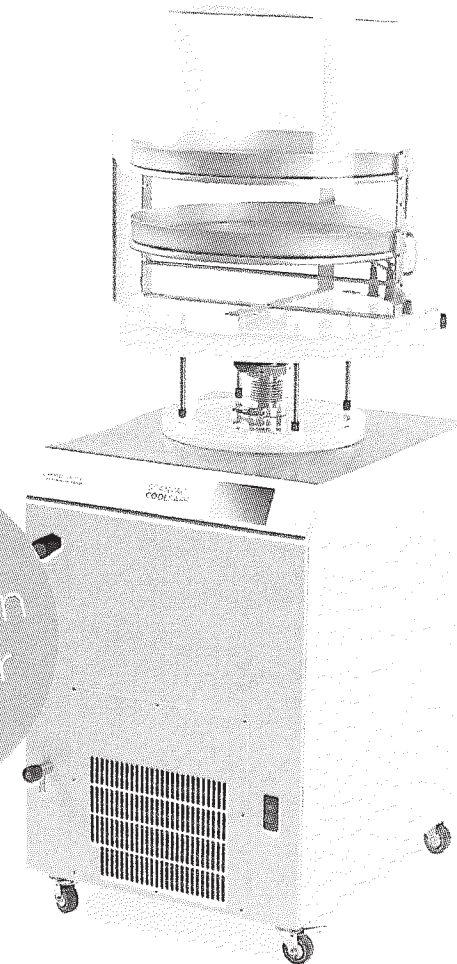
CONFIGURE YOUR COOLSAFE FREEZE DRYER

We offer a range of options to configure the freeze dryer to your specific needs:

- Teflon coating of the condenser for longevity, easy cleaning and protection from corrosion, especially when working with aggressive acids.
- Electric de-ice function for fast de-icing of the condenser.
- CoolSafe is easy to place in your laboratory:
 - Available as standard for direct placement on the laboratory table.
 - Available with lockable castors for easy transport and to save laboratory bench space.
 - Available with a trolley and convenient location of the vacuum pump to make the system a mobile freeze-drying unit that can be positioned anywhere in the laboratory.

Contact the LaboGene distributor in your respective country for more information about your options and about freeze dryer customization.

Smart
Touchscreen
Controller



40

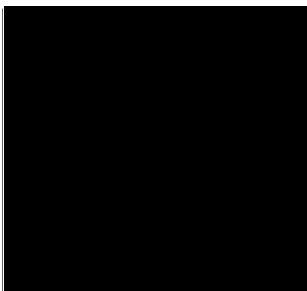
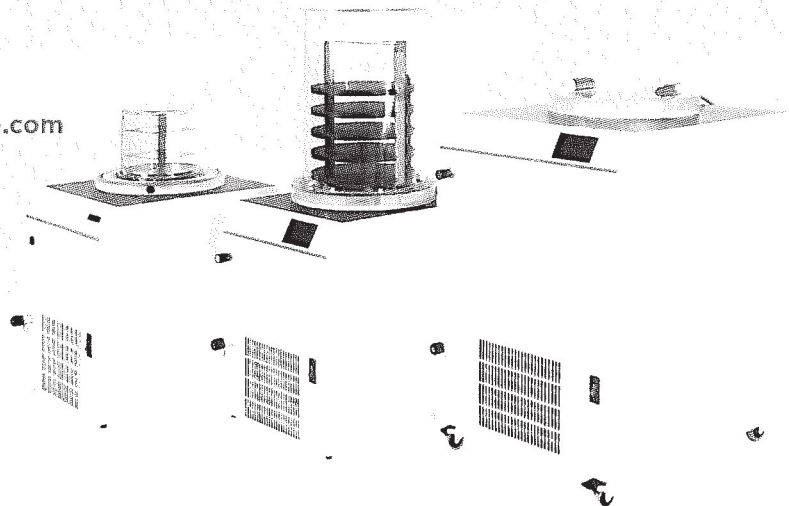
YEARS OF EXPERIENCE

LaboGene are experts in the fields of Clean Air & Laminar Flow, Centrifugation, Vacuum & Cooling. We provide both standard and perfectly customized solutions. Designing, developing, manufacturing and marketing laboratory and industrial equipment is our speciality.

Leading supplier in:

- Microbiological safety cabinets
- Freeze dryers
- Freezers
- Centrifuges

Learn more at www.labogene.com



 **LABOGENE**
Scandinavian by Design



001

MPW-260

MPW-260R

MPW-260RH



PDF



v.3

FEATURES

effective ventilation system [MPW-260]

with cooling [MPW-260R]

with cooling and heating [MPW-260RH]

temperature +4°C ensured for maximum speed of each rotor [MPW-260R; MPW-260RH]

delayed start function

start when preselected temperature is reached [MPW-260R; MPW-260RH]

initial cooling without/with centrifuging, cooling after centrifuging, precise temperature stabilization [MPW-260R; MPW-260RH]

maintenance-free induction motor

modern software system

large graphic LCD [MPW-260RH] - blanking the screen after a period of inactivity

preselected and real values of speed, RCF, time shown on the display at the same time [MPW-260]

preselected and real values of speed, RCF, time and temperature shown on the display at the same time [MPW-260R; MPW-260RH]

100 user programs

10 acceleration/deceleration curves

programming of multi-section acceleration/deceleration curves

RPM/RCF adjustment

two modes of time calculation: from start key pressing or from reaching preselected speed

continuous operation mode - HOLD

SHORT time operation mode

manual centrifugal radius adjustment [with automatic RCF correction]

possibility of changing of parameters during centrifuging

automatic rotor identification

automatic lid opening

centrifuging parameters recording - MPW Editor - PC computer [USB]

menu language setting [PL, EN, ES, IT, PT, DE, RU, SE, FR, CZ]

selected functions blocking, password protection

manual adjustment of density of samples > 1,2g/cm³ [with automatic maximum speed correction]

stainless steel rotor chamber

SAFETY

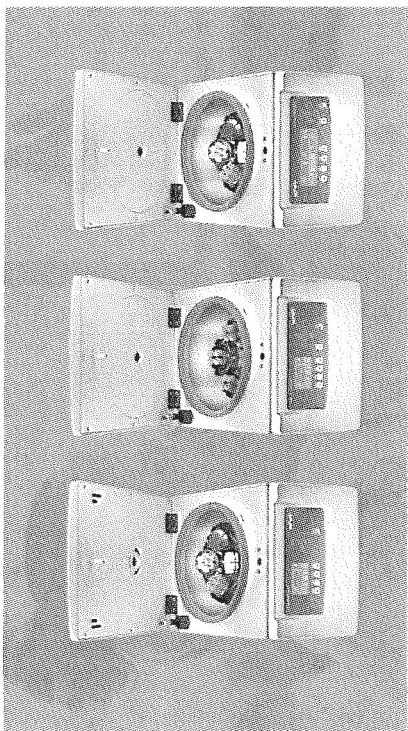
unbalance sensor

lid locking during rotor running

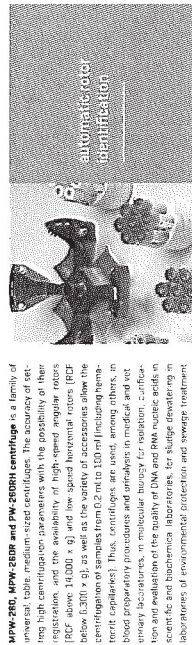
start blocking at opened lid

emergency lid lock release

product conforming with the EN-61010-1 and EN-61010-2-020, EN-61010-2-101 standards

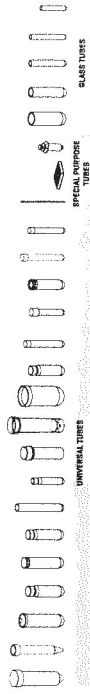


Model	Capacity	Speed	Acceleration	Deceleration	Temperature	Control
MPW 200R	200 x 50ml (100 x 110 x 50mm)	2000 RPM	1200 RPM/min (100 x 120 x 50mm)	100 RPM/min	4°C to 40°C	Microprocessor
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MPW 200R	200 x 50ml (100 x 110 x 50mm)	2000 RPM	1200 RPM/min (100 x 120 x 50mm)	100 RPM/min	4°C to 40°C	Microprocessor



MPW 200, MPW 200R and PW 200RH centrifuge is a family of universal table medium-sized centrifuges. The accuracy of setting high centrifugation parameters with the possibility of their registration, and the availability of high-speed angular rotor (up to 2000 RPM) and low-speed horizontal rotors (up to 100 RPM) for centrifugation of samples from 0.2 ml to 100 ml (including bench-top centrifuges). Thus, centrifuges are used, among others, in biotechnology, molecular biology, medicine, and other fields. They are used in preparatory procedures and analysis in medical and veterinary laboratories, in molecular biology for isolation, purification and evaluation of the quality of DNA and RNA nucleic acids in scientific and biochemical laboratories, for sludge dewatering in laboratories of environmental protection and sewage treatment plants, and many others.

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PW 200RH	200 x 50ml (100 x 110 x 50mm)	2000 RPM	1200 RPM/min (100 x 120 x 50mm)	100 RPM/min	4°C to 40°C	Microprocessor
MPW 200	200 x 50ml (100 x 110 x 50mm)	2000 RPM	1200 RPM/min (100 x 120 x 50mm)	100 RPM/min	4°C to 40°C	Microprocessor
MPW 200R	200 x 50ml (100 x 110 x 50mm)	2000 RPM	1200 RPM/min (100 x 120 x 50mm)	100 RPM/min	4°C to 40°C	Microprocessor
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