

TOMY

HIGH SPEED REFRIGERATED MICRO CENTRIFUGE

MX-307•207•107



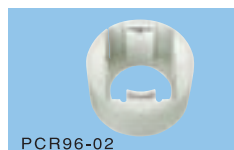
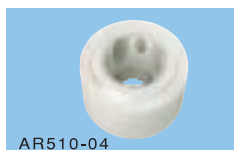
MX-Series can provide energy-saving performance.



MX-307

Flagship of the MX-Series, capable of accepting 50ml conical tubes.

- Accommodates all TOMY Rack-in-Rotors : TMA-100/200/300
- Stack up to three racks high, total 2ml × 72 can be processed
- Accommodates a high g-force centrifugation rack : AR510-04 and 96-well PCR plate × 2 : PCR96-02



MX-207

From 2ml micro tubes to 30ml tubes, the MX-205 supports a wide range of applications.

- Accommodates two models of TOMY Rack-in-Rotors : TMA-100/200
- Stack up to two racks high, total 2ml × 48 can be processed
- Accommodates a rotor rack for up to 5ml × 12 : AR050-12



MX-107

Advanced centrifuge model with simple operation designed to spin micro tubes.

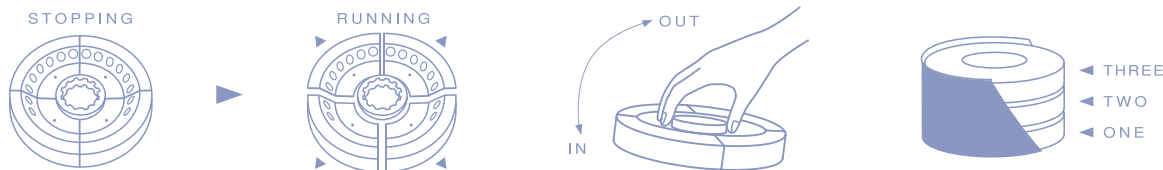
- Accommodates a TOMY Rack-in-Rotor TMA-100 compatible with four types of rack
- Supports from 8-Strip PCR tubes : AR002-64 to 2ml × 24 micro tubes
- Provides up to 15,000rpm high speed centrifugation
- All MX-107 compatible rotors can reach their maximum speed within 10 seconds.



high performance for research applications and simplicity of use!

Rack-in-Rotor

The Future of Centrifuge Rotor System



“Rack-in-Rotor” system using a combination of carbon fiber rotors and drop-in racks made of resin for greater convenience, higher performance and lower cost.

1 Drop-in / lift-out rotor racks for easy placement and removal

Lightweight resin racks have a drop-in / lift-out design which allows for easy placement and replacement of tubes. These rotor racks are available in a wide variety of types to suit your application.

2 Lightweight and excellent acceleration/ deceleration performance

Each rack has four slits so that the adhesion of the rack to the inner wall of the rotor is facilitated by centrifugal force, providing stable operation of the rotor. Lightweight rotors and racks can also increase acceleration and deceleration performance.

3 Stackable Rack-in-rotor

Small size racks can be stacked in layer. For instance rack AR015-24, 24 tubes at one rack, times three and total 72 tubes spin at one time. Moreover all tube are in same G force because of same radius.

4 A portable rack for sample tubes

A resin rack can be used for a wide range of purposes, including storage and transportation. It can be used as a tube stand or carrier to hold or transport all of sample tubes.

MX-Series

HIGH SPEED REFRIGERATED MICRO CENTRIFUGE

The MX-Series is a high speed refrigerated micro centrifuge that is designed for high performance and simplicity of operation.

1 Powerful motor and inverter realize fast acceleration and deceleration.

3 User friendly, beautiful and functional design with human factors engineering in mind

2 All models are equipped with an imbalance detection system as a standard safety function.

4 Compact body with wheel design for easy installation and transportation

Easy-to-see, easy-to-use control panel

- User friendly center **Jog Dial operation**
- Highly visible **dual color LED display** for operating status indication
- **Memory function** storing up to two sets of operating parameters for more efficient centrifugation
- **One touch key operation** permits easy acceleration of the rotor to a maximum speed for the centrifugation protocol selected.
- **1 - 99 minutes timer** with 1 minute increment



▼During stopping



▼During spinning



MX-Series can provide energy-saving performance.

ECO mode

Electric power saving

The MX-Series centrifuge comes with an ECO mode to realize an up to approximately 43%^(※1) reduction in electric power consumption during the waiting time.



※1 The figure mentioned above is calculated by comparing MX-305 and MX-307. The reduction rates of power consumption vary from model to model and may vary from one product to another.

1 Basic power saving **15% down**

TOMY's MX-Series centrifuge has achieved an up to approximately 15%^(※2) reduction in electric power consumption compared to the former model (MX-***5 Series) by controlling the motor fan drive during the waiting time (standby cooling).

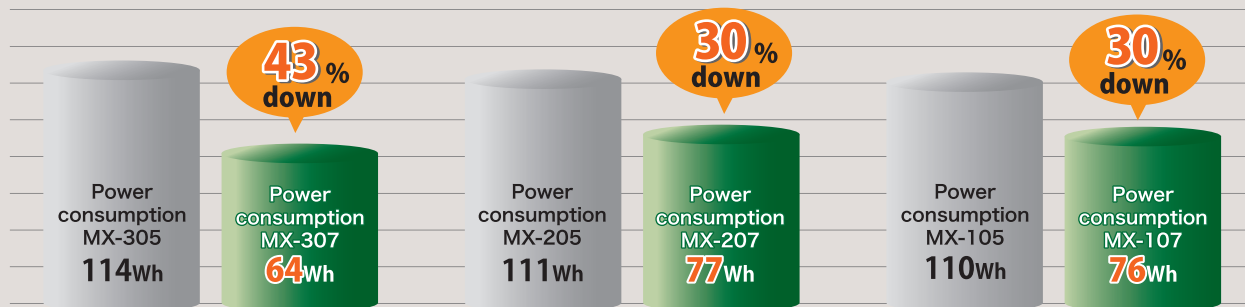
※2 The figure mentioned above is calculated by comparing MX-105 and MX-107. The reduction rates of power consumption vary from model to model and may vary from one product to another.

2 Switch-on ECO mode to save the power consumption Patent pending

Activating the power-saving [ECO] mode can also help reduce the power consumption during the waiting time (standby cooling) by allowing the temperature fluctuation bands to be changed. The chamber can cool down to the set temperature^(※3) within approximately three minutes after release from ECO mode.

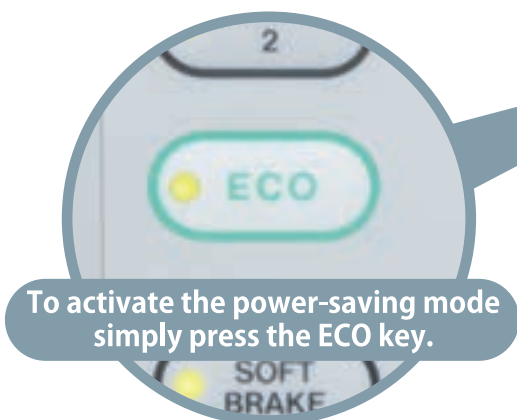
※3 Under the conditions: set temperature of 4°C at an ambient temperature of 25°C

Comparison of power consumption between MX-***5 Series and MX-***7 Series in the ECO mode






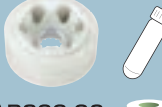

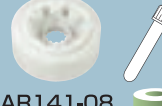







■ Measurement conditions: Set to 4°C at an ambient temperature of 25°C while centrifugation is stopped. (Rotors in use: MX-30*: TMA-300+AR015-24×3
MX-20*: TMA-200+AR015-24×2 MX-10*: TMA-100+AR015-24)

■ The values shown above average values obtained by measuring the units.














Rotors/Racks For MX-Series High Speed Refrigerated Micro Centrifuge

Centrifuge	MX-307	MX-207	MX-107	▼ Rotor Rack	
▶ Rack-in-Rotor (Carbon Fiber Material)	TMA-300	TMA-200	TMA-100	 AR002-64 8-Strip PCR Tube × 8 15,000rpm / 18,120G (Inner row : 16,350G)	 AR004-24 0.4ml × 24 15,000rpm / 20,380G
			Use one rack	 AR005-24 0.5ml × 24 15,000rpm / 19,880G	 AR015-24 2ml × 24 15,000rpm / 20,380G
			Use one rack	*Can be triple-stacked in TMA-300 and double-stacked in TMA-200	
		Can be double-stacked		 AR015-SC24 *1 2ml × 24 15,000rpm / 20,380G	 AR300-06 30ml × 6 15,000rpm / 20,380G
		Use one rack		 AR050-12 5ml × 12 15,000rpm / 20,130G	 AR141-08 14ml × 8 15,000rpm / 20,380G
		Can be triple-stacked		 AR150-08 *2 15ml × 8 15,000rpm / 20,380G	 AR510-04 *2 *3 50 or 15ml × 4 15,000rpm / 20,380G
		Use one rack		 AR501-04 *3 50 or 14ml × 4 15,000rpm / 20,130G	 PCR96-02 96 Well PCR Plate × 2 14,000rpm
		Use one rack		 A96-01PC Optional adapter, A96-01PC is required	

*1 Rack for spin columns *2 Culture tubes *3 50ml tubes cannot be centrifuged together with 15ml (or 14ml) tubes in the same rotor rack.

Fixed-angle Rotor/Swing-out Rotor

Centrifuge	▼ Rotor				
MX-107	 TMP-21 2ml × 18 15,000rpm / 17,860G	 TMP-24 2ml × 24 13,500rpm / 17,730G			
MX-207	 TMA-26 *4 2ml × 12 16,000rpm / 18,320G	 TMA-22 2ml × 18 / 0.5ml × 18 15,000rpm / 19,120G (Inner : 14,840G)	 TMA-29 2ml × 24 15,000rpm / 21,130G	 TMA-20 10ml × 8 15,000rpm / 18,370G	 TMA-32 14ml × 8 15,000rpm / 20,630G
	 TMS-21 *5 2ml × 16 15,000rpm / 19,880G				
MX-307	 TMA-30 2ml × 36 15,000rpm / 21,130G (Inner : 18,620G)	 TMA-27 *2 *3 50 or 15ml × 4 15,000rpm / 21,130G	 TMA-25BH *6 50ml × 4 15,000rpm / 19,120G	<div style="border: 1px solid black; padding: 5px;"> HS It adopted a hermetically sealed structure equivalent to HS rotors designed and tested in accordance with the International Standard (Annex AA of the IEC 61010-2-020) to offer excellent sealing performance. </div>	

*4 The photo shows a rotor with a lid. *5 The photo shows a rotor with a bucket model M0415-04 installed. *6 High sealed rotor

Standard Specifications

Models	MX-307	MX-207	MX-107
Maximum Speed	16,000rpm		15,000rpm
Maximum RCF	21,130G	21,130G	20,380G
Maximum Capacity	50ml × 4	30ml × 6	2ml × 24
Control System	Microprocessor control (feedback system)		
Drive Motor	Induction motor		
Drive System	Direct drive with an automatic alignment function		
Data Entry Device	Jog Dial		
Temperature Setting Range	-9 to 35°C (1°C increments)		
Speed Setting Range	300rpm to Maximum speed (100rpm increments)		
RCF Setting Range	100G to Maximum RCF (100G increments)		
Time Setting Range	0 to 99 minutes (1 minute increments) or <F--> for free		
Additional Functions	<ul style="list-style-type: none"> ●FLASH (momentary spin) function ●Memory function (two sets) ●Previous setting memory ●Soft Brake function 		
Safety Devices	<ul style="list-style-type: none"> ●Lid interlock ●Lid open/close detector ●Over-speed detector ●Over-current circuit breaker ●Motor over-current detector ●Abnormally high or low chamber temperature detector ●Rotor identification system ●Imbalance detector 		
Refrigerant	HFC134a (240 g)	HFC134a (210 g)	HFC134a (200 g)
Power Requirements	Single phase AC110/120V 50/60Hz, 15A Single phase AC220/230/240V 50/60Hz, 8A		
Power Consumption (calorific heat value)	920W (790 k cal/h)	780W (670 k cal/h)	650W (560 k cal/h)
Dimensions (except protrusion)	345W×465D×860H mm (table height : 755H mm, lid in open position : 1,125H mm)		
Net Weight	66kg (110/120V) 71kg (220/230/240V)	66kg (110/120V) 71kg (220/230/240V)	66kg (110/120V) 71kg (220/230/240V)
Cord Length	3m		
Environmental Requirements	Ambient temperature range : 10 to 35°C, Relative humidity : 30 to 85%, Atmospheric pressure : 700 to 1,060hPa		
Accessories Included	<ul style="list-style-type: none"> ●Operator's manual × 1 copy ●Warranty card × 1 copy ●Customer card × 1 copy ●Inspection sheet × 1 copy ●Hexagon wrench × 1 pcs ●Clear storage case × 1 pcs ●Attaching screw × 1 pcs ●Caster holder × 2 pcs ●Drain plug × 1 pcs 		

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