

Centrifugation









Thermo Scientific X Series Centrifuges

Revolving around performance

The Thermo Scientific™ X Series General Purpose Centrifuges are designed to help provide exceptional performance, power and versatility through innovations to support efficiency across applications. The refrigerated models feature Thermo Scientific™ GreenCool™ Technology, a next-generation natural refrigerant cooling system for enhanced sustainability. These refrigerated centrifuges have a Global Warming Potential (GWP) of 3, do not contribute to ozone layer depletion, and comply with EU and US EPA F-gas regulations. Besides being less hazardous, the centrifuges use up to 6% less energy** compared to previous models. Additionally, they are manufactured in a certified zero-waste facility using 100% renewable electricity in Osterode am Harz, Germany. In the United States, we offer a recycling program that helps reduce the amount of waste sent to landfills. With advanced safety features, ergonomic design, and versatile configurations, these centrifuges turn every challenge into an opportunity.

Touchscreen | Up to 18 rotor options | Quick rotor exchange

Thermo Scientific™ features

- Intuitive user interface 
- Wide range of rotors for application flexibility 
- Thermo Scientific™ Auto-Lock™ Rotor Exchange 
- GreenCool Technology (refrigerated models) 
- Improved ergonomics and user experience 
- Optional connectivity, sample tracking software 
- Thermo Scientific™ ClickSeal™ Biocontainment Lids 
- IVD, general purpose or Cell Therapy Systems (CTS™) Series models 

GREEN COOL
TECHNOLOGY
& SUSTAIN-
ABILITY



GLOBAL WARMING POTENTIAL*

3

LOWER ENERGY CONSUMPTION UP TO**

6%

MADE IN A CERTIFIED ZERO-WASTE FACILITY***

END-OF-LIFE RECYCLING PROGRAM****

* Due to natural refrigerant (R290).

** Comparing maximum power consumption to previous model. Current model X4TR Centrifuge, 230V (1,750 W) and previous model: Thermo Scientific™ Sorvall™/ Multifuge™ X4R Pro Centrifuge, 230V (1,850 W).

*** Zero waste defined as less than 10% of non-hazardous waste sent to landfill, incineration or waste-to-energy.

**** End of life recycling program in the United States. Visit thermofisher.com/centrifuge-recycling


Thermo Scientific™ X4T, X4TR and X4FR Centrifuges

| Specifications | X4T | | X4TR | | X4FR | |
|--------------------------------------|--|------------------|--|------------------|---|------------------|
| | IVD-MD | General Use Only | IVD-MD | General Use Only | IVD-MD | General Use Only |
| Swinging buckets rotors | | | | | | |
| Maximum capacity | 4 x 1,000 mL with TX-1000 rotor | | | | | |
| Maximum speed | 6,100 rpm with H-Flex HS4 rotor | | | | | |
| Maximum RCF | 7,196 x g with H-Flex HS4 rotor | | | | | |
| Fixed angle rotors | | | | | | |
| Maximum capacity | 6 x 250 mL with F14-6x250LE rotor | | | | | |
| Maximum speed | 15,200 rpm with F21-48x2, Microliter 48x2 or Microliter 30x2 | | | | | |
| Maximum RCF | 25,830 x g with Microliter 30x2 | | | | | |
| Centrifuge details | | | | | | |
| Control system | Microprocessor | | | | | |
| Drive system | Direct, brushless induction low profile motor | | | | | |
| Accel/decel profiles | Choices of 9 accel / 10 decel rates | | | | | |
| Material | Front, top, sides: PC-ABS plastic painted with 2K PUR-based lacquer; metal housing: cold rolled steel with powder paint; centrifuge bowl: stainless steel; benchtop centrifuge feet: rubber/ floor-standing centrifuge feet: lockable casters | | | | | |
| Safety features | SMARTSpin Imbalance detection, finger-pinch prevention, crash-proof construction | | | | | |
| Sustainability features | Green Mode, scheduling features, greener rotor options | | GreenCool technology, Green Mode, scheduling features, greener rotor options | | | |
| Noise level ¹ | <50 dB(A) | | <51 dB(A) | | <54 dB(A) | |
| Warranty | 5 years limited (2 years standard warranty + 3 additional years on motor and refrigeration) | | | | | |
| Includes | Corrosion resistance oil (70009824), power cord, declaration of conformity (where applicable) | | | | | |
| Temperature range | N/A | | -20°C to +40°C | | | |
| Number of compatible rotors | 18 | | | | | |
| Display details | | | | | | |
| Display | Full color touch screen interface | | | | | |
| Run time | Max 99h, 59min, 59sec; also with continuous and customizable pulse | | | | | |
| Speed | Increments of 1 rpm / 1 x g | | | | | |
| Timer | Count up or down in increments of 1 second | | | | | |
| Temperature | N/A | | Sample temperature in increments of 1 degree | | | |
| Program storage | Up to 100 run programs with step programming | | | | | |
| Programmability | Via easy access touchscreen menu | | | | | |
| Dimensions, weight | | | | | | |
| Dimensions HxWxD lid closed (cm) | 36.2 x 56.6 x 69.0 | | 36.1 x 74.6 x 69.5 | | 83.5 x 56.4 x 69.6 cm | |
| Height lid open (cm) | 86.1 | | 86.0 | | 135.0 | |
| Dimensions HxWxD lid closed (inches) | 14.3 x 22.3 x 27.2 | | 14.2 x 29.4 x 27.2 | | 32.9 x 22.2 x 27.2 | |
| Height lid open (inches) | 33.9 | | 33.9 | | 53.1 | |
| Net weight (kg) | 89.0 | | 125.0 (129.0 for 100V) | | 155 (159 for 100V) | |
| Net weight (lbs) | 196.2 | | 275.6 | | 341.8 | |
| Gross weight (kg) | 110.0 | | 147.0 (151.0 for 100V) | | 188 (192 for 100V) | |
| Gross weight (lbs) | 242.6 | | 324.1 | | 414.5 | |
| Certifications and standards | | | | | | |
| IVD/MD | √ | | √ | | √ | |
| Certifications | All models: IEC/UL/EN 61010-1, IEC/UL/EN 61010-2-020, IEC/UL/EN 61326-1, FCC part 15 Additional certification for refrigerated models: IEC/UL/EN 61010-2-011 Additional certifications for IVD-MD models: IEC/UL/EN 61010-2-101, IEC/UL/EN 61326-2-6 | | | | | |
| Standards/ directives | ISO 14971, ISO 13485, ISO 9001 Additional directives for IVD-MD models: FDA listed, Device Class 1, EU IVDR class A | | | | | |
| Cleanroom compatibility | Class ISO 6 according to DIN EN ISO 14644-1 | | | | Class ISO 8 according to DIN EN ISO 14644-1 | |
| Ordering information | | | | | | |
| | X4T | | X4TR | | X4FR | |
| | IVD-MD | General Use Only | IVD-MD | General Use Only | IVD-MD | General Use Only |
| 220-240V 50/60Hz (Global) | 75007341* | 75007343 | 75007365* | 75007366 | 75007361* | 75007362 |
| 208-240V 60Hz (North America only) | 75007341* | N/A | 75007364*§ | N/A | 75007360*§ | N/A |
| 120V 60Hz (Global) | 75007340* | N/A | 75007364* | N/A | 75007360* | N/A |
| 100V 50/60Hz (Japan only) | N/A | 75007339 | N/A | 75007363 | N/A | 75007359 |

1. Noise level measured with TX-1000 rotor at 1,000 x g/ 2,070 rpm.

*Indicates a centrifuge, rotor and/or adapter product approved for use in diagnostic applications; see user manual for details.

§ Refrigerated models are rated to be used with 120V-240V, 60Hz power sources and will include both the NEMA 5-15P (120V) and NEMA 6-15P (208V) plug heads.

Learn more at thermofisher.com/xcentrifuge

thermo scientific

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