

SPECIFICATIONS

Only values with tolerances or limits are guaranteed data. Values without tolerances are informative data, without guarantee.

Speed

Set speed 200 to 10 200 rpm in 10-rpm increments
 Speed display actual rotor speed in 10-rpm increments
 or in RCF (when selected)

Time

Set time to 99 hours 59 minutes
 or continuous (hold)

Time display

Timed run indicates run time remaining
 Continuous (hold) or pulse run indicates elapsed time

Temperature

Set temperature

Allegra X-12R -10 to $+40^{\circ}\text{C}$ in 1° increments
 Allegra X-12 factory set at 20°C

Temperature control (after equilibration)

Allegra X-12R $\pm 2^{\circ}\text{C}$ of set temperature*
 Allegra X-12 $\pm 2^{\circ}\text{C}$ of the 20°C set temperature

Temperature display (after equilibration) chamber temperature
 in 1° increments

Ambient temperature range 10 to 35°C

Ambient temperature range for optimum

operation 10 to 25°C

Humidity restrictions $<75\%$ (noncondensing)

Acceleration 10 acceleration rates

Deceleration 11 deceleration rates

Dimensions

Width 76.2 cm (30.0 in.)

Depth 62.2 cm (24.5 in.)

Height 34.3 cm (13.5 in.)

Weight 121 kg (267 lb)

Ventilation clearances (sides and rear) 7.6 cm (3.0 in.)

Finishes

Control panel coated polystyrene copolymer

Housing surfaces acrylic baking enamel

Electrical requirements

208-V, 60-Hz instrument 187–229 VAC, 9 A, 60 Hz

200-V, 50/60-Hz instrument 180–220 VAC, 10 A, 50/60 Hz

230-V, 50-Hz instrument 207–253 VAC, 8 A, 50 Hz

Electrical supply Class I

Maximum heat dissipation into room under

steady-state conditions 4100 Btu/hr (1.2 kW)

Noise level 0.91 m (3 ft) in front of centrifuge ≤ 68 dBA

Installation (overvoltage) category II

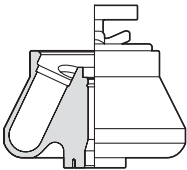
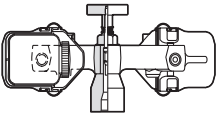
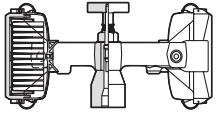
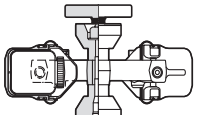
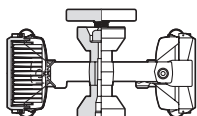
Pollution degree 2[†]

* During transient conditions, such as acceleration and deceleration, rotor temperature may be outside this range. To reach temperatures above ambient, the centrifuge is dependent on the frictional heat generated inside the chamber during operation. At low run speeds or low ambient temperatures, the centrifuge may not be able to achieve some higher temperatures.

† Normally only nonconductive pollution occurs; occasionally, however, a temporary conductivity caused by condensation must be expected.

AVAILABLE ROTORS

The following Beckman Coulter rotors can be used in the Allegra X-12 series centrifuge. The rotors are described in individual manuals that accompany each rotor.

Rotor Profile and Description	Rotor Selection Code	Max RPM*	Max RCF† (× g) at r_{\max}	Number of Tubes × Nominal Capacity	Rotor Manual Number
FX6100 Fixed Angle  $r_{\max} = 98.0 \text{ mm}$	FX6100	10 200	11 400	6 × 100 mL	GX-TB-005
SX4750 Swinging Bucket  Tube-and-bottle buckets, $r_{\max} = 207.8 \text{ mm}$  Multiwell-plate carriers, $r_{\max} = 183.2 \text{ mm}$	SX4750 SX4750 μ	3 750 3 750	3 270 2 885	4 × 750 mL 4 × 96 mL	GX-TB-003
SX4750A Swinging Bucket (ARIES)  Tube-and-bottle buckets, $r_{\max} = 207.8 \text{ mm}$  Multiwell-plate carriers, $r_{\max} = 183.2 \text{ mm}$	SX4750A SX4750A	3 750 3 750	3 270 2 885	4 × 750 mL 4 × 96 mL	GX-TB-004

*Maximum speeds are based on a solution density of 1.2 g/mL. At upper temperature and humidity ambient conditions, swinging bucket rotor speed may require reduction.

†Relative Centrifugal Field (RCF) is the ratio of the centrifugal acceleration at a specified radius and speed ($r\omega^2$) to the standard acceleration of gravity (g) according to the following formula:

$$\text{RCF} = \frac{r\omega^2}{g}$$

where r is the radius in millimeters, ω is the angular velocity in radians per second ($2\pi \text{ RPM} / 60$), and g is the standard acceleration of gravity (9807 mm/s^2). After substitution:

$$\text{RCF} = 1.12 r \left(\frac{\text{RPM}}{1000} \right)^2$$