

## 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  $1^{\circ}$  increments  
 Allegra X-12 . . . . . factory set at  $20^{\circ}\text{C}$

#### 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  $20^{\circ}\text{C}$  set temperature

Temperature display (after equilibration) . . . . . chamber temperature  
 in  $1^{\circ}$  increments

Ambient temperature range . . . . .  $10$  to  $35^{\circ}\text{C}$

#### Ambient temperature range for optimum

operation . . . . .  $10$  to  $25^{\circ}\text{C}$

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 . . . . .  $\leq 68$  dBA

Installation (overvoltage) category . . . . . II

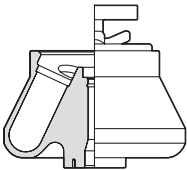
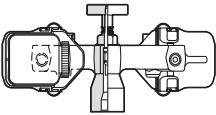
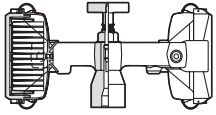
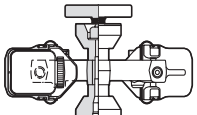
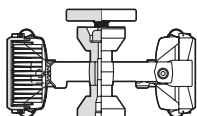
Pollution degree . . . . . 2<sup>†</sup>

\* 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†<br>(× g)<br>at $r_{\max}$ | Number of Tubes × Nominal Capacity | Rotor Manual Number |
|--|------------------------|----------------|------------------------------------|------------------------------------|---------------------|
| FX6100 Fixed Angle<br><br>$r_{\max} = 98.0 \text{ mm}$  | FX6100                 | 10 200         | 11 400                             | 6 × 100 mL                         | GX-TB-005           |
| SX4750 Swinging Bucket<br><br>Tube-and-bottle buckets,<br>$r_{\max} = 207.8 \text{ mm}$<br><br>Multiwell-plate carriers,<br>$r_{\max} = 183.2 \text{ mm}$           | SX4750<br>SX4750 $\mu$ | 3 750<br>3 750 | 3 270<br>2 885                     | 4 × 750 mL<br>4 × 96 mL            | GX-TB-003           |
| SX4750A Swinging Bucket (ARIES)<br><br>Tube-and-bottle buckets,<br>$r_{\max} = 207.8 \text{ mm}$<br><br>Multiwell-plate carriers,<br>$r_{\max} = 183.2 \text{ mm}$ | SX4750A<br>SX4750A     | 3 750<br>3 750 | 3 270<br>2 885                     | 4 × 750 mL<br>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,  $\omega$  is the angular velocity in radians per second ( $2\pi \text{ RPM} / 60$ ), and  $g$  is the standard acceleration of gravity ( $9807 \text{ mm/s}^2$ ). After substitution:

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