

Centrifugues and laboratory products

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General applications: Centrifuges universal

Series DIGICEN 21







Max. capacity: 4 x 100 ml. Max. speed: 26.480 xg / 16.500 RPM Max. volume: 480 ml

Universal by design. With a wide range of rotors for microplates, cryotubes, microtubes, tubes from 100 ml., with options as versatile as con 28 x 15 ml. tubes in a swing out rotor and 32 x 15 ml. conical tubes in an angle fixed rotor, and rotors for high speed 85 ml., 80 ml., 50 ml., 30 ml. and 10 ml. tubes. The accessories and components are designed to facilitate cleaning and quick rotor exchange. This equipment can process highly diverse samples, offering the most exhaustive control of the process in its range. Programming by stages allows the user to control each of them, ensuring traceability and repeatability of the process at all times.

The safety devices incorporated, for the sample as well as the user, impede the cycle from beginning if the operation is not carried out in the right way and according to the values entered.

### **Features**

#### LCD screen:

- Shows RPM and RCF, time and acceleration/deceleration (PCBS).
- Speed programming in 10 RPM/ 10 xg steps.
- Timer countdown/up from "0" or at "set RPM/ RCF" for reproducible tests.
- Timer from 5 sec. to 99 min. programmable in 5 sec. steps and hold position.
- PCBS: Progressive controlled acceleration and braking system up to 175 selectable ramps that prevents sample homogenization after separation.
- 16 programmable memories.
- Several acoustic and visual messages warning the user the device situation.

## Easy to use

- Microprocessor controlled.
- Induction motor maintenance free (brushless).
- Rotors list on memory.
- Noise level: below 60 dB.
- Start, stop, open lid and short spin with adjustable speed buttons.
- Option of free/locked adjustment of RPM/ RCF along the run.
- Automatic open lid, programable.
- Low heigh for easy access.
- · Last values remain in memory.
- Automatic rotor recognition. Over-speed protection.

# Safety

- Lid provided with security systems:
- Automatic lid lock system, motorized with double lock.
- Emergency lid-lock release.
- Locking and protection against opening along the run.
- Lid dropping protection.
- Port in the lid for calibration and operation checking.
- · Unbalance detection and switch off.
- Protection safety ring between the centrifugation chamber and the housing.
- Chamber of centrifugation in stainless steel (easy cleaning).
- Rotors can be removed with the lid closed. Hermetic lids.
- Rotors and adapters autoclavable, easy to install by the user.
- Forced ventilation to reduce temperature increasing.
- Automatic disconnection for energy saving up to 8 h., with deactivation option.

**EU Directives:** 2011/65/EU, 2012/19/EU, 2014/30/EU, 2014/35/EU, 98/79/EC. **Standards:** EN 61010-1, EN 61010-2-101, EN 61010-2-020, EN 61326-2-6, EN 61326-1.

	Dimensions (mm) (w x d x h)			Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)	
CE 110	410 520		320	36	220-230	50-60	440	
CE 116	410	520	320	36	110-120	50-60	420	





Max. capacity: 4 x 100 ml.

Max. speed: 26.480 xg / 16.500 RPM

Max. volume: 480 ml.

Versatility fused with effectiveness. The centrifuge Digicen 21 R has a wide range of angle fixed rotors, both for low revolutions, with capacity up to 32 tubes of 15 ml./15 ml. conical, and for microtubes, cryotubes and high speed tubes. For the swing out versions, it has rotors for 4 tubes of 100 ml. and up to 28 positions for 15 ml. tubes. The wide range of reducers that accompany each of these rotors give the great versatility that defines the universal centrifuges. Its powerful refrigeration system enables it to maintain the minimum temperature of the chamber below 4°C regardless of the type of rotor and the speed selected.

This particularity, joined to the control of the process of each of the stages and the parameters that control them, gives the user confidence in traceability during the centrifugation cycle.

### **Features**

#### LCD screen:

- Shows RPM and RCF, time, temperature and acceleration/deceleration (PCBS).
- Speed programming in 10 RPM/ 10 xg steps.
- Timer countdown/up from "0" or at "set RPM/ RCF" for reproducible tests.
- Timer from 5 sec. to 99 min. programmable in 5 sec. steps and hold position.
- PCBS: Progressive controlled acceleration and braking system up to 175 selectable ramps that prevents sample homogenization after separation.
- 16 programmable memories.
- Several acoustic and visual messages warning the user the device situation.

## Easy to use

- Microprocessor controlled.
- Induction motor maintenance free (brushless).
- Rotors list on memory.
- Noise level: below 60 dB.
- Start, stop, open lid and short spin with adjustable speed buttons.
- Option of free/locked adjustment of RPM/ RCF along the run.
- Low heigh for easy access.
- · Last values remain in memory.
- Automatic rotor recognition. Over-speed protection.

# Safety

- Lid provided with security systems:
- Automatic lid lock system, motorized with double lock.
- Emergency lid-lock release.
- Locking and protection against opening along the run.
- Lid dropping protection.
- Port in the lid for calibration and operation checking.
- · Unbalance detection and switch off.
- Protection safety ring between the centrifugation chamber and the housing.
- Chamber of centrifugation in stainless steel (easy cleaning).
- Rotors can be removed with the lid closed. Hermetic lids.
- Rotors and adapters autoclavable, easy to install by the user.
- Automatic disconnection for energy saving up to 8 h.

# Refrigeration

- Remains the refrigeration after centrifugation process.
- Precooling program with rotor spinning and temperature selectable.
- Guarantee 4°C at maximum RPM.
- Temperature range from -20°C (-4°F) to 40°C (104°F) in 1°C steps.
- Temperature sensor inside the chamber.
- Gas R 449A HFO (CFC free).

**EU Directives:** 2011/65/EU, 2012/19/EU, 2014/30/EU, 2014/35/EU, 98/79/EC.

Regulation n°: (EC) 1005/2009, (EU) 517/2014.

Standards: EN 61010-1, EN 61010-2-101, EN 61010-2-020, EN 61326-2-6, EN 61326-1.

	Dimensions (mm)(w x d x h)			Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)	Z max advisable (Hz)
CE 113	590	620	320	65	220-230	50	700	<  0.446
CE 119	590	620	320	65	110-120	60	800	<   0.446



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Made in Spain (UE)



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General applications: Centrifuges universal

**UNICEN 21** 





Max. capacity: 4 x 100 ml. Max. speed: 2.938 xg / 4.200 RPM

Max. volume: 480ml.

The word that best defines and determines its characteristics is, without doubt, universal. It has multiple rotors with a wide range of reducers, which enables it to work with volumes from 0.2 ml. to 100 ml., with angle fixed and swing out options. This equipment covers all types of needs of the users and offers a range of medium speeds for routine processes. To optimise the performance of the equipment in this range, we have increased its capacity with a swing out rotor for up to 28 x 15 ml. tubes and an angle fixed rotor for 32 to 15 ml./15 ml. conical tubes.

It has a control to define the functions beyond the operation values, thus becoming a piece of equipment perfectly integrated into your processes. Versatile, functional, simple, indispensable in your lab.

### **Features**

#### LED screen:

- Shows RPM/ RCF and time.
- Speed programming in 50 RPM/ 10 xg steps.
- Timer countdown/up from "0" or at "set RPM/ RCF" for reproducible tests.
- Timer from 1 to 99 min. programmable in 1 min. steps and hold position.
- Acceleration and deceleration control in 3 steps: fast, soft and free.
- Acoustic and visual messages on screen warning the user the equipment status.

## Easy to use

- Microprocessor controlled.
- Induction motor maintenance free (brushless).
- Rotors list on memory.
- Noise level: below 60 dB.
- Start, stop, open lid and short spin with adjustable speed buttons.
- Option of free/locked adjustment of RPM/ RCF along the run.
- Automatic open lid, programmable.
- · Low heigh for easy access.
- Last values remain in memory.
- Over-speed protection.

# Safety

- Lid provided with security systems:
- Automatic lid lock system, motorized with double lock.
- Emergency lid-lock release.
- Locking and protection against opening along the run.
- Lid dropping protection.
- Port in the lid for calibration and operation checking.
- · Unbalance detection and switch off.
- Protection safety ring between the centrifugation chamber and the housing.
- Chamber of centrifugation in stainless steel (easy cleaning).
- Buckets can be removed with the lid closed.Hermetic lids
- Rotors and adapters autoclavable, easy to install by the user.
- Forced ventilation to reduce temperature increasing
- Automatic disconnection for energy saving, with deactivation option.

EU Directives: 2011/65/EU. 2012/19/EU. 2014/30/EU. 2014/35/EU. 98/79/EC.

Standards: EN 61010-1, EN 61010-2-101, EN 61010-2-020, EN 61326-2-6, EN 61326-1.

	Dimensions (mm)(w x d x h)			Net weight (Kg)	Voltage (V)	Frecuency (Hz)	Consumption (W)
CE 126	410	520	320	36	220-230	50-60	280
CE 127	410	520	320	36	110-120	50-60	280



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General applications: Centrifuges micro

**BIOCEN 22 R** 





LCD (PCBS) 🕸

Max. capacity: 8 x 15 ml.

Max. speed: 31.865 xg / 18.100 RPM

One of the best options when high speed and different tube formats are required. This refrigerated microcentrifuge, which has a wide range of rotors for a cooled centrifuge, it can work with conical type tubes from 0,2 ml. to 15 ml. Dynamic cooling equipment kept the desired temperature, reaching it in a short period of time and maintaining it stable throughout the whole cycle, regardless of the operation speed. Customisation of equipment options through the software enables you to adapt the work cycles to the process as well as the user preferences, thus optimising performance in your laboratory.

For Ortoalresa, the Biocen 22 R centrifuge is the culmination of its know-how in centrifugation, materialised for the user in a robust, versatile and efficient piece of equipment that integrates perfectly into any lab, highlighting its application in research and biotechnology.

### **Features**

### LCD screen:

- Shows RPM and RCF, time, temperature and acceleration/deceleration (PCBS).
- Speed programming in 10 RPM/ 10 xg steps.
- Timer countdown/up from "0" or at "set RPM/ RCF" for reproducible tests.
- Timer from 5 sec. to 99 min. programmable in 5 sec. steps and hold position.
- PCBS: Progressive controlled acceleration and braking system up to 175 selectable ramps that prevents sample homogenization after separation.
- 16 programmable memories.
- Several acoustic and visual messages warning the user the device situation.

## Easy to use

- Microprocessor controlled.
- Induction motor maintenance free (brushless).
- · Rotors list on memory.
- Noise level: below 65 dB.
- Start, stop, open lid and short spin with adjustable speed buttons.
- Option of free/locked adjustment of RPM/ RCF along the run.
- Low heigh for easy access.
- · Last values remain in memory.
- Automatic rotor recognition. Over-speed protection.

# Safety

- Lid provided with security systems:
  - Automatic lid lock system, motorized.
- Emergency lid-lock release.
- Locking and protection against opening along the run.
- Lid dropping protection.
- Port in the lid for calibration and operation checking.
- · Unbalance detection and switch off.
- Protection safety ring between the centrifugation chamber and the housing.
- Chamber of centrifugation in stainless steel (easy cleaning).
- Rotors can be removed with the lid closed. Hermetic lids.
- Rotors and adapters autoclavable, easy to install by the user.
- Automatic disconnection for energy saving up to 8 h.

# Refrigeration

- Remains the refrigeration after centrifugation process.
- Precooling program with rotor spinning and temperature selectable.
- Guarantee 4 °C at maximum RPM.
- Temperature range from -20°C (-4°F) to 40°C (104°F) in 1°C steps.
- Temperature sensor inside the chamber.
- Gas R 449A HFO (CFC free).

EU Directives: 2011/65/EU, 2012/19/EU, 2014/30/EU, 2014/35/EU, 98/79/EC.

Regulation n°: (EC) 1005/2009, (EU) 517/2014.

Standards: EN 61010-1, EN 61010-2-101, EN 61010-2-020, EN 61326-2-6, EN 61326-1.

	Dimensions			Net weight	Voltage	Frecuency	Consumption
	(mm) (w x d x h)			(Kg)	(V)	(Hz)	(W)
CE 148	270	650	280	41	220-230	50	540
CE 149	270	650	280	41	110-120	60	700







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