

9 Technical data

9.1 Power supply

Centrifuge 5424

Mains power connection	230 V, 50 to 60 Hz 120 V, 50 to 60 Hz 100 V, 50 to 60 Hz
Current consumption:	1.9 A (230 V) 3.8 A (120 V) 4.0 A (100 V)
Power consumption:	max. 250 W
EMC: Interference emission (radio interference)	EN 61326 - category B
EMC: Noise immunity	EN 61326 - performance characteristic B
Overvoltage category:	II
Fuses:	3.15 AT (230 V) 6.3 AT (120 V / 100 V)

Centrifuge 5424 R

Mains power connection	230 V, 50 to 60 Hz 120 V, 50 to 60 Hz 100 V, 50 to 60 Hz
Current consumption:	1.6 A (230 V) 3.2 A (120 V) 3.4 A (100 V)
Power consumption:	max. 350 W
EMC: Interference emission (radio interference)	EN 61326 - category B
EMC: Noise immunity	EN 61326 - performance characteristic B
Overvoltage category:	II
Fuses:	3.15 AT (230 V) 6.3 AT (120 V / 100 V)

9.2 Ambient conditions

Environment:	For indoor use only.
Ambient temperature:	Centrifuge 5424: 2 to 40°C Centrifuge 5424 R: 10 to 40°C
Max. relative humidity:	10 to 75 %, non-condensing humidity
Atmospheric pressure:	Use up to an altitude of 2000 m above MSL.
Degree of contamination:	2

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9.3 Weight / dimensions

Centrifuge 5424

Dimensions:	Width: 236 mm (9.30 in.) Depth: 320 mm (12.60 in.) Height: 227 mm (8.94 in.)
Weight without rotor:	13.4 kg (29.5 lb)
Noise level:	< 51 dB(A) *

Centrifuge 5424 R

Dimensions:	Width: 290 mm (11.42 in.) Depth: 480 mm (18.90 in.) Height: 260 mm (10.24 in.)
Weight without rotor:	21.0 kg (46.3 lb)
Noise level:	< 54 dB(A) *

*) The noise level was measured according to DIN EN ISO 3745 frontally in a sound measuring room with accuracy class 1 at a distance of 1 m from the device and at lab bench height.

9.4 Application parameters

Acceleration and deceleration times of Centrifuge 5424 / 5424 R with the rotor FA-45-24-11 (according to DIN 58 970)

Rotor	Without soft ramp	With soft ramp SOFT
FA-45-24-11	15 s / 16 s	5424 : 24 s / 28 s 5424 R: 26 s / 28 s

These values were calculated for 230 V at 23 °C.

9.4.1 Centrifuge 5424

Run time:	30 s to 9:59 h, infinitely (∞), adjustable up to 10 min. in 0.5 min. increments, thereafter in 1 min. increments.
Relative centrifugal force (RZB or rcf):	1 to 20,238 x g (230 V, 100 V) 1 to 21,130 x g (120 V) adjustable in 50 x g increments.
Speed:	100 to 14,680 rpm (230 V, 100 V) 100 to 15,000 rpm (120 V) adjustable in 50 rpm increments.
Max. load:	24 micro test tubes of 2.0 mL each.
Max. kinetic energy:	4070 Nm
Test log mandatory:	No
Permitted density of the material for centrifuging (at max. g-force (rcf) or speed (rpm) and max. load):	1.2 g/mL

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9.4.2 Centrifuge 5424 R

Run time:	30 s to 9:59 h, infinitely (∞), adjustable up to 10 min. in 0.5 min. increments, thereafter in 1 min. increments.
Temperature:	-10°C to 40°C
Relative centrifugal force (RZB or rcf):	1 to 21,130 x g, adjustable in 50 x g increments.
Speed:	100 to 15,000 rpm, adjustable in 100 rpm increments.
Max. load:	24 micro test tubes of 2.0 mL each.
Max. kinetic energy:	4070 Nm
Test log mandatory:	No
Permitted density of the material for centrifuging (at max. g-force (rcf) or speed (rpm) and max. load):	1.2 g/mL