

11 Technical data

11.1 Power supply

Centrifuge 5425

Mains/power connection	230 V, 50 Hz – 60 Hz 120 V, 50 Hz – 60 Hz 100 V, 50 Hz – 60 Hz
Current consumption	230 V: 1.8 A 120 V: 3.8 A 100 V: 4.5 A
Power consumption	230 V: 280 W 120 V: 280 W 100 V: 280 W
EMC: noise emission (radio interference)	230 V: EN 61326-1/EN 55011 – Class B 120 V: CFR 47 FCC Part 15 – Class B 100 V: EN 61326-1/EN 55011 – Class B
EMC: noise immunity	EN 61326-1
Overvoltage category	II
Protection class	I
Fuses	230 V: 250 V 4 AT HBC 120 V: 250 V 8 AT HBC 100 V: 250 V 8 AT HBC
Degree of pollution	2

11.2 Ambient conditions

Environment	For indoor use only
Ambient temperature	2 °C – 40 °C
Relative humidity	10 % – 80 %, non-condensing
Atmospheric pressure	75 kPa – 106 kPa Use up to a height of 2 000 m above sea level.

11.3 Weight/dimensions

Dimensions	Width: 24 cm (9.45 in) Depth: 39 cm (15.35 in) Height: 24 cm (9.45 in)
Weight without rotor	15.6 kg (34.39 lb)
Rotor weights	Weight
F-24x2	797.5 g
FA-10x5	756.5 g
FA-18x2-KIT	860 g
F-32x0.2-PCR	383 g
S-96x0.2	270 g

11.4 Noise level

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.

Noise level	< 51 dB(A)
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11.5 Application parameters

Tab. 11-1: Acceleration time and braking time according to DIN 58 970

Rotor	Acceleration time	Deceleration time
FA-24x2	15 s	15 s
FA-10x5	15 s	15 s
F-32x0.2-PCR	15 s	15 s
Run time	10 s – 9:59 h, unlimited (∞) • 10 s – : can be set in increments of 10 s • 2 min – 10 min: can be set in increments of 30 s • 10 min – 9:59 h: can be set in increments of 1 min	
Rotational speed	100 rpm – 15060 rpm • 100 rpm – 5000 rpm: adjustable in increments of 10 • 5000 rpm – 15060 rpm: adjustable in increments of 100	
Relative centrifugal force	1 $\times g$ – 21300 $\times g$ • 1 $\times g$ – 3000 $\times g$: adjustable in increments of 10 • 3000 $\times g$ – 21300 $\times g$: adjustable in increments of 100	
Maximum load	Fixed-angle rotor: 10 $\times$ 5 mL	
Maximum kinetic energy	4.136 kJ	
Permitted density of the material for centrifuging (at maximum g -force (rcf) or rotational speed (rpm) and maximum load)	1.2 g/mL	
Inspection obligation in Germany	no	

11.6 Acceleration and deceleration times

The following table shows the approximate acceleration and deceleration times according to DIN 58970 for the rotors of the Centrifuge 5425. The data was determined at maximum load of the rotor. Fluctuations may occur depending on the condition of the device and the load.

- Level 9: shortest acceleration time/deceleration
- Level 0: longest acceleration time/deceleration time (with the brake off)

Tab. 11-2: Geräte mit 120 V/230 V

Rotor		0	1	2	3	4	5	6	7	8	9
FA-24x2	Acceleration time	360 s	300 s	240 s	180 s	120 s	90 s	60 s	45 s	30 s	15 s
	Deceleration time	370 s	300 s	240 s	180 s	120 s	90 s	60 s	45 s	30 s	15 s
	Tolerance	–	–	±5 %*							

* 5 s minimum

The acceleration and deceleration times of the FA-18x2-KIT, FA-10x5, F-32x0.2-PCR fixed-angle rotors are comparable.