

10 Technical data

10.1 Power supply

Power connection:	230 V, 50 to 60 Hz 120 V, 60 Hz	
Current consumption:	5804/5810 (230 V):	6 A
	5804/5810 (120 V):	11 A
	5804 R/5810 R (230 V):	9 A/10 A
	5804 R/5810 R (120 V), 20 A:	16 A
	5804 R/5810 R (120 V), 15 A:	12 A
Power consumption:	5804/5810 (230 V):	max. 900 W
	5804/5810 (120 V):	max. 950 W
	5804 R/5810 R (230 V):	max. 1650 W
	5804 R/5810 R (120 V), 20 A:	max. 1650 W
	5804 R/5810 R (120 V), 15 A:	max. 1300 W
EMC: Interference emission (radio interference)	EN 61326-1 Class A	
EMC: Noise immunity	EN 61326	
Overvoltage category:	II	
Fuses:	5804/5810 (230 V):	Excess current switch 12 A
	5804/5810 (120 V):	Excess current switch 12 A
	5804 R/5810 R (230 V):	Excess current switch 12 A
	5804 R/5810 R (120 V), 20 A:	Excess current switch 18 A
	5804 R/5810 R (120 V), 15 A:	Excess current switch 15 A

10.2 Ambient conditions

Environment:	For indoor use only.	
Ambient temperature:	5804/5810:	2 to 40 °C
	5804 R/5810 R:	15 to 35 °C
Max. relative humidity:	75%, non-condensing humidity	
Atmospheric pressure:	Use up to an altitude of 2000 m above MSL.	
Degree of pollution:	2	

10.3 Weight/dimensions

Dimensions (W × D × H)	5804	466 × 550 × 337 mm (18.4 × 21.7 × 13.3 in.) Depth of footprint: 496 mm (19.5 in.)		
	5804 R	634 × 550 × 342 mm (25.0 × 21.7 × 13.5 in.) Depth of footprint: 496 mm (19.5 in.)		
	5810	535 × 608 × 345 mm (21.1 × 21.1 × 13.6 in.) Depth of footprint: 536 mm (21.1 in.)		
	5810 R	700 × 608 × 345 mm (27.6 × 23.9 × 13.6 in.) Depth of footprint: 536 mm (21.1 in.)		
Weight excl. rotor	5804	55 kg (121 lb.)		
	5804 R	80 kg (176 lb.)		
	5810	68 kg (150 lb.)		
	5810 R	99 kg (218 lb.)		
Rotor				
		A-4-81 (4 × 500 mL)	A-4-44 (4 × 100 mL)	F-34-6-38 (6 × 85 mL)
Noise level	5804	-	< 67 dB(A)	< 51 dB(A)
	5804 R	-	< 56 dB(A)	< 58 dB(A)
	5810	< 65 dB(A)	< 65 dB(A)	< 53 dB(A)
	5810 R	< 56 dB(A)	< 56 dB(A)	< 59 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.

10.4 Application parameters

Run time:	1 to 99 min, adjustable in 1 min increments. infinite (∞)	
Temperature (only 5804 R/5810 R):	-9 °C to 40 °C	
Relative centrifugal force (RCF or rcf):	10 to 20,913 x g adjustable up to 3,000 x g in 10 x g increments, thereafter in 100 x g increments.	
Rotational speed:	200 to 14,000 rpm, adjustable up to 5,000 rpm in 10 rpm, afterwards in 100 rpm increments.	
Max. load:	5804/5804 R:	4 x 250 mL
	5810/5810 R:	4 x 750 mL
Max. kinetic energy:	5804/5810:	19,000 Nm (11,000 rpm)
	5804 R:	19,000 Nm (11,000 rpm)
	5810 R:	23,000 Nm (12,000 rpm)
Test log mandatory in Germany:	Yes	
Permitted density of the centrifugate (at max. g-force/rpm and max. load):	1.2 g/mL	
Standardized interface (optional)	RS 232 C	

Deceleration times according to DIN 58 970

Tab. 2: Approximate deceleration times of the different rotors for the levels 0 to 9 (in seconds) for 230 V devices

5804/ 5804 R	5810/5810 R	Rotor	0	1	2	3	4	5	6	7	8	9
-		A-4-81	532	189	174	143	131	109	95	85	59	31
-		A-4-81- MTP/ Flex	643	191	174	142	131	110	94	83	58	30
-		A-4-62	740	190	170	140	130	110	95	85	55	26
-		A-4-62-MTP	620	190	170	140	130	110	95	85	55	26
		A-4-44	470	300	270	220	200	140	100	75	45	23
-		A-2-DWP-AT	857	231	202	176	157	135	112	102	69	39
		A-2-DWP	304	174	130	118	100	75	51	44	32	14
		FA-45-6-30	759	423	322	231	205	178	148	113	93	58
		F-34-6-38	880	370	280	190	170	150	125	95	75	54
		FA-45-30-11	240	140	70	45	35	30	25	22	19	18
		F-45-30-11	240	140	70	45	35	30	25	22	19	18
		F-45-48-PCR	169	119	60	41	31	26	22	19	17	16
		T-60-11	800	280	140	95	70	55	45	40	36	36
		S-4-104	680	192	169	147	130	112	68	46	37	32
-		S-4-72	360	238,	191	168	148	117	56	32	21	15
		FA-45-48-11	454	269	141	98	76	62	46	40	35	31
		FA-45-20-17	550	342	178	123	97	80	58	51	45	40
		F-35-48-17	16	26	40	72	140	185	211	243	304	228

These values are to be considered as guidelines. Level 9 means "strongest braking", level 0 means "free deceleration". Considerable fluctuations can occur depending upon the condition of the device and the load. The deceleration times for the 230 and 120 V devices are almost identical.