

Universal Centrifuges

| Z 327

| Z 327 K



HERMLE
LABORTECHNIK

Z 327

Z 327 K



Z 327



Z 327 K

Specifications

- Maintenance-free induction drive
- Microprocessor with large LCD display
- Motor driven lid lock
- Automatic radio-frequency rotor identification system (RFID) with over speed protection, immediately upon rotor insertion
- Active imbalance identification and cut-off (rotor specific)
- CFC-free refrigeration system (Z 327 K)
- A large variety of rotors and accessories
- Audible signal at the end of each run with several melody options
- Noise level under 63 dBA at max. speed
- Manufactured according to international safety regulations, i.e. IEC 61010
- Rotor exchange is easy to handle
- Optimized airflow system keeps the samples cool (Z 327)
- Stainless steel chamber

Both the table top centrifuge Z 327 and the refrigerated table top centrifuge Z 327 K offer a wide assortment of rotor options, making them ideal for a wide variety of research applications. Rotor exchange between swing out, micro, or high volume angled rotors is very simple and can take place in a matter of seconds. The Z 327 K includes the refrigeration system on the back side of the unit, optimized for the lab bench at only 40 cm width.

Technical data

max. speed:	18,000 rpm
max. RCF:	23,542 xg
max. volume:	4 x 200 ml
Speed range:	200 – 18,000 rpm
Temperature range	
Z 327 K:	-20°C bis 40°C
Running time:	59 min 50 s / 10 s increments 99 h 59 min / 1 min increments

Dimensions

Z 327:	40 cm x 36 cm x 48 cm (WxHxD)
Z 327 K:	40 cm x 36 cm x 70 cm (WxHxD)

Weight

Z 327 / Z 327 K:	43 kg / 60 kg
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Power input:

Z 327 / Z 327 K:	460 W / 660 W
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Order No.:

Z 327:	315.00 V01-Z 327, 230V / 50-60Hz 315.00 V02-Z 327, 120V / 50-60Hz
Z 327 K:	337.00 V01-Z 327 K, 230V / 50-60Hz 337.00 V02-Z 327 K, 120V / 50-60Hz



Z 327 K

Distinct Control Panel

- Simple one handed Touch-Operation
- Easy to program with gloves on
- Splash proof digital display
- Permanent indication of Preset and Actual Values
- Selection of speed in both rpm and g-force, with increments of 10
- 10 acceleration and 10 deceleration rates, Possibility of unbraked deceleration
- Preselection of the temperature from - 20°C to 40°C with 1°C increments (Z 327 K)
- Indication of the sample temperature (Z 327 K)
- Pre-cooling program option (Z 327 K)
- Standstill cooling (Z 327 K)
- Pre-selection of running time from 10 s to 99 h 59 min or continuous
- Storage of up to 99 runs incl. rotor type
- Quick-key for short runs
- Diagnostic program
- Timer: the centrifuge starts at the preselected time

Accessories Z 327 and Z 327 K

Rotor/Bucket

Order No.:
221.71 V20

Swing out rotor 4 place
Angle: 0-90°

605.100
Bucket for Adapter

605.102
Lid for Bucket I hermetically sealed



Adapter

Acceleration in s: 21/102
Deceleration in s: 12/387
max. speed: 5,000 rpm
RCF-Value: 4,136 xg
max. radius: 14.8 cm

Volume

Tubes Ø in mm

Volume	200 ml bottle	200 ml conical	100 ml RB Glass	85 ml RB/OR	50 ml RB Glass
Tubes Ø in mm	56	56	40	38	34
Length min./max. (mm)	112	120	95/115	95/108	95/118
Tubes per Rotor	4	4	4	4	4
Radius Correction (cm)	0.0	0.0	0.2	0.2	0.2
Order No. Adapter	without	705.100	705.101	705.102	705.103

Volume
Tubes Ø in mm

Length min./max. (mm)
Tubes per rotor
Radius Correction (cm)
Order No. Adapter

Volume	50 ml RB/OR	50 ml conical	50 ml skirted	25/30 ml Universal	25/30 ml RB/OR	15 ml conical	15 ml conical	15 ml RB	5/7 ml RB	5 ml conical	1.5/2.0 ml micro	6-10 ml Vakt.	1.8-7 ml Vakt.	50 ml conical
Tubes Ø in mm	29	29	29	25	25	17	17	17	13	17	11	16	13	29
Length min./max. (mm)	95/103	116	116	95/105	90/110	120	120	60/107	65/100	60/70	40	100	75/100	116
Tubes per rotor	4	4	4	4	4	16	12	28	32	16	32	28	32	8
Radius Correction (cm)	0.2	0.1	0.2	0.2	0.2	0.1	0.0	0.2	0.2	0.1	0.1	0.2	0.2	0.0
Order No. Adapter	705.104	705.105	705.106	705.107	705.108	705.109*	705.110	705.111	705.112	705.113	705.114	705.111	705.112	605.103

Order No.:
221.12 V20

Swing out rotor 4 place
Angle: 0-90°



Acceleration in s: 12/93
Deceleration in s: 12/226
max. speed: 4,500 rpm
RCF-Value: 3,350 xg
max. radius: 14.8 cm

Volume

Tubes Ø in mm

Volume	145 ml Nalgene®	100 ml RB Glass	85 ml RB/OR	50 ml RB Glass	50 ml RB Glass	50 ml conical
Tubes Ø in mm	50	44	38	34	29	29
Length min./max. (mm)	100	90/108	90/108	92/118	90/118	116
Tubes per rotor	4	4	4	4	4	4
Radius Correction (cm)	1.0	1.0	0.8	0.7	0.7	0.3
Order No. Adapter	626.017	626.000	626.001	626.008	626.009	626.002

Volume
Tubes Ø in mm

Length min./max. (mm)
Tubes per rotor
Radius Correction (cm)
Order No. Adapter

Volume	50 ml Rim	30 ml Universal	25 ml RB Glass	15 ml conical	15 ml RB	5/7 ml RB Glass	1.5/2.0 ml micro	4.5 ml Sarstedt®	5/7 ml	6-10 ml Vakt.	1.8-7 ml Vakt.
Tubes Ø in mm	29	25	25	17	17	13	11	12	13	16	13
Length min./max. (mm)	116	95/105	95/110	120	90/108	75/100	40	75/100	65/80	90/108	75/100
Tubes per rotor	4	4	4	8	28	36	40	36	28	28	28
Radius Correction (cm)	0.6	1.1	0.5	0.0	0.4	1.3	5.5	0.9	3.3	0.4	0.7
Order No. Adapter	626.010	626.011	626.012	626.003	626.004	626.005	626.014	626.007	626.015	626.004	626.006

Order No.:
221.16 V20

Swing out rotor 2x3 Microtitreplates
Angle: 0-90°



Acceleration in s: 22/155
Deceleration in s: 16/518
max. speed: 4,500 rpm
RCF-Value: 2,716 xg
max. radius: 12.0 cm
max. loading height: 63 mm
max. loading weight: 310 g
Temp. at max. speed: -5°C

Order No.:
706.000

Tube rack
48 x 1.5 ml (2.0 ml)
Tubes

Order No.:
221.19 V20

Angle rotor 30 x 15 ml Glass
or 20 x 15 ml conical
Angle: 35°



Acceleration in s: 17/114
Deceleration in s: 11/632
max. speed: 4,500 rpm
RCF-Value: 2,830/2,467 xg
max. radius: 12.5/10.9 cm
max. Ø: 17 mm
Temp. at max. speed: -7°C

Order No.:
without
without
701.011
701.012
701.015
701.018

Adapter	Ø [mm]	Length [min./max.]
1 x 15 ml Glass	17.0	95/115
1 x 15 ml conical	17.0	120
1 x 7 ml	13.5	95/115
1 x 5 ml (RIA)	13.5	70/90
1 x 1.5/2.0 ml	11	40
1 x 4.5-10 ml Sarstedt®	11-16	90/92

Accessories Z 327 and Z 327 K

Rotor/Bucket

Order No.:
221.54 V20



Angle rotor 12x15 ml
Angle: 32°

Adapter

Acceleration in s: 18/103
Deceleration in s: 12/356
max. speed: 6,000 rpm
RCF-Value: 4,427 xg
max. radius: 11.0 cm
max. Ø: 17 mm
Temp. at max. speed: -9°C

Volume

15 ml
conical

15 ml

4-7 ml
Vakut.®

1.8-5 ml
Vakut.®

1.5/2.0 ml

6-10 ml
Sarstedt®/
Vakut.®



Tubes Ø in mm
Length min./max. in mm
Order No. Adapter

17
120
without

17
105/120
without

13
100
701.011

13
75
701.012

11
40
701.015

16
92/107
701.018

Order No.:
221.55 V20



Angle rotor 6x50 ml
Angle: 40°

Acceleration in s: 15/102
Deceleration in s: 11/486
max. speed: 6,000 rpm
RCF-Value: 4,427 xg
max. radius: 11.0 cm
max. Ø: 29 mm
Temp. at max. speed: -6°C

Volume

50 ml
conical

50 ml
RB/OR

30 ml

16 ml

15 ml
conical

15 ml
RB



Tubes Ø in mm
Length min./max. in mm
Order No. Adapter

29
116
without

29
100/120
without

25
92/95
708.019

18
100/105
708.003

17
120
708.030

17
92/120
708.030

Order No.:
220.78 V21



Angle rotor 6x85 ml
Angle: 25°

Acceleration in s: 65/399
Deceleration in s: 38/988
Acceleration in s: 98/495
Deceleration in s: 47/1,068
max. speed: 11,000 rpm
max. speed: 13,500 rpm
RCF-Value: 13,932 xg
RCF-Value: 20,984 xg
max. radius: 10.3 cm
max. Ø: 38 mm
Temp. at max. speed: 15°C

Order No.:
without
707.003
707.004
707.002
707.015
707.000
707.001
707.014

Adapter
1 x 85 ml
1 x 50 ml
1 x 30 ml conical
1 x 30 ml
1 x 16 ml
2 x 15 ml
1 x 15 ml
1 x 15 ml conical

Ø [mm]
38
29
29
25
18
17
17
17

Length [min./max.]:
113
105
116
90/103
103/110
95/100
103/110
120

Order No.:
221.18 V21



Angle rotor 6x85 ml
Angle: 38°

Acceleration in s: 62/412
Deceleration in s: 34/1,310
max. speed: 9,000 rpm
RCF-Value: 10,413 xg
max. radius: 11.5 cm
max. Ø: 38 mm
Temp. at max. speed: 1°C

Order No.:
without
707.003
707.004
707.002
707.015
707.000
707.001
707.014

Adapter
1 x 85 ml
1 x 50 ml
1 x 50 ml conical
1 x 30 ml
1 x 16 ml
2 x 15 ml
1 x 15 ml
1 x 15 ml conical

Ø [mm]
38
29
29
25
18
17
17
17

Length [min./max.]:
113
105
116
90/103
103/110
95/100
103/110
120

Order No.:
221.20 V20



Angle rotor 4x85 ml
Angle: 30°

Acceleration in s: 68/307
Deceleration in s: 34/1,102
max. speed: 12,000 rpm
RCF-Value: 14,809 xg
max. radius: 9.2 cm
max. Ø: 38 mm
Temp. at max. speed: 3°C

Order No.:
without
707.003
707.004
707.002
707.015
707.000
707.001
707.014

Adapter
1 x 85 ml
1 x 50 ml
1 x 50 ml conical*
1 x 30 ml
1 x 16 ml
2 x 15 ml
1 x 15 ml
1 x 15 ml conical*

Ø [mm]
38
29
29
25
18
17
17
17

Length [min./max.]:
113
105
116
90/103
103/110
95/100
103/110
120

*only without rotor lid

Order No.:
221.22 V20



Angle rotor 6x50 ml
Angle: 26°

Acceleration in s: 44/358
Deceleration in s: 26/772
max. speed: 12,000 rpm
RCF-Value: 13,522 xg
max. radius: 8.4 cm
max. Ø: 29 mm
Temp. at max. speed: 4°C

Order No.:
without
708.019
708.003
708.004
708.017

Adapter
1 x 50 ml round
1 x 30 ml
1 x 16 ml
1 x 15 ml
1 x 15 ml conical*

Ø [mm]
29
25
18
17
17

Length [min./max.]:
95/115
92/95
100/105
100/105
120




*only without rotor lid

Accessories Z 327 and Z 327 K

Rotor/Bucket	Adapter				
<p>Order No.: 221.28 V21</p>  <p>Angle rotor 20x10 ml Angle: 30°</p>	<p>Acceleration in s: 54/357 Deceleration in s: 29/842 max. speed: 12,000 rpm RCF-Value: 15,775 xg max. radius: 9.8 cm max. Ø: 16 mm Temp. at max. speed: 4°C</p>	<p>Order No.: without</p>	<p>Adapter 1 x 10 ml</p>	<p>Ø [mm] 16</p>	<p>Length [min./max.]: 80</p>
<p>Order No.: 221.17 V21</p>  <p>Angle rotor 30x1.5/2.0 ml Angle: 45°</p>	<p>Acceleration in s: 31/189 Deceleration in s: 20/504 Acceleration in s: 35/205 Deceleration in s: 22/465 max. speed: 13,000 rpm max. speed: 14,000 rpm RCF-Value: 17,758 xg RCF-Value: 20,595 xg max. radius: 9.4 cm max. Ø: 11 mm Temp. at max. speed: 6°C</p>	<p>Order No.: without without 704.005 704.004</p>	<p>Adapter 1 x 2.0 ml 1 x 1.5 ml 1 x 0.5 ml 1 x 0.4/0.2 ml PCR</p>	<p>Ø [mm] 11 11 8 6</p>	<p>Length [min./max.]: 40 40 45 45</p>
<p>Order No.: 220.87 V22</p>  <p>PPS-Lid Angle rotor 24x1.5/2.0 ml Angle: 45° hermetically sealed</p>	<p>Acceleration in s: 25/222 Deceleration in s: 17/261 max. speed: 15,000 rpm RCF-Value: 21,379 xg max. radius: 8.5 cm max. Ø: 11 mm Temp. at max. speed: 3°C</p>	<p>Order No.: without without 704.005 704.004</p>	<p>Adapter 1 x 2.0 ml 1 x 1.5 ml 1 x 0.5 ml 1 x 0.4/0.2 ml PCR</p>	<p>Ø [mm] 11 11 8 6</p>	<p>Length [min./max.]: 40 40 45 45</p>
<p>Order No.: 220.87 V20</p>  <p>Alu-Lid Angle rotor 24x1.5/2.0 ml Angle: 45° hermetically sealed</p>	<p>Acceleration in s: 26/222 Deceleration in s: 17/267 max. speed: 15,000 rpm RCF-Value: 21,379 xg max. radius: 8.5 cm max. Ø: 11 mm Temp. at max. speed: 4°C</p>	<p>Order No.: without without 704.005 704.004</p>	<p>Adapter 1 x 2.0 ml 1 x 1.5 ml 1 x 0.5 ml 1 x 0.4/0.2 ml PCR</p>	<p>Ø [mm] 11 11 8 6</p>	<p>Length [min./max.]: 40 40 45 45</p>
<p>Order No.: 221.23 V20</p>  <p>Angle rotor 12x1.5/2.0 ml Angle: 40°</p>	<p>Acceleration in s: 25/232 Deceleration in s: 20/308 max. speed: 18,000 rpm RCF-Value: 23,542 xg max. radius: 6.5 cm max. Ø: 11 mm Temp. at max. speed: -2°C</p>	<p>Order No.: 704.004 704.005 704.011</p>	<p>0.4 ml Tubes (Ø6 x 45 mm) Adapter Kid (6 Pieces) 0.5 ml Tubes (Ø8 x 32 mm) Adapter Kid (6 Pieces) 1.5 ml Adapter for full performance. (necessary from 16,000 xg) (6 Pieces)</p>		
<p>Order No.: 221.68 V20</p>  <p>Angle rotor 44x1.5/2.0 ml Angle: 32°/55°</p>	<p>Acceleration in s: 31/256 Deceleration in s: 21/441 max. speed: 15,000 rpm RCF-Value: 21,379 xg max. radius: 8.5 cm max. Ø: 11 mm Temp. at max. speed: 3°C</p>	<p>Order No.: without without 704.005 704.004</p>	<p>Adapter 1 x 2.0 ml 1 x 1.5 ml 1 x 0.5 ml 1 x 0.4/0.2 ml PCR</p>	<p>Ø [mm] 11 11 8 6</p>	<p>Length [min./max.]: 40 40 45 45</p>



Accessories Z 327 and Z 327 K

Rotor/Bucket		Adapter			
<p>Order No.: 221.38 V20</p>  <p>Angle rotor 4x8-place PCR Stripes Angle: 45°</p>	<p>Acceleration in s: 14/126 Deceleration in s: 15/154 max. speed: 15,000 rpm RCF-Value: 15,343xg max. radius: 6.1 cm max. Ø: 6 mm Temp. at max. speed: 2°C</p>				
<p>Order No.: 221.35 V20</p>  <p>Angle rotor 12x 5ml Tubes Angle: 45°</p>	<p>Acceleration in s: 24/206 Deceleration in s: 20/436 Acceleration in s: 26/220 Deceleration in s: 21/420 max. speed: 14,000 rpm max. speed: 15,000 rpm RCF-Value: 18,624xg RCF-Value: 21,379xg max. radius: 8.5 cm max. Ø: 17 mm Temp. at max. speed: 2°C</p>	<p>Order No.:</p>	<p>Adapter</p>	<p>Ø [mm]</p>	<p>Length [min./max.]</p>
		without	1 x 5.0ml conical	17	60
		701.015	1 x 1.5/2.0ml	11	40
		701.016	1 x 1.0ml Cryo, flat	12.6	41
		701.017	1 x 1.8ml Cryo, round	12.6	48
<p>Order No.: 221.52 V20</p>  <p>Angle rotor 10x50ml conical Angle: 38°</p>	<p>Acceleration in s: 59/374 Deceleration in s: 35/1,698 max. speed: 7,500 rpm RCF-Value: 8,141xg max. radius: 13cm max. Ø: 29mm Temp. at max. speed: 0°C</p>	<p>Order No.:</p>	<p>Adapter</p>	<p>Ø [mm]</p>	<p>Length [min./max.]</p>
		708.050	1 x 15ml RB	17	97/123
		701.011*	1 x 7ml	13.5	95/115
		701.012*	1 x 5ml	13.5	70/90
		701.015*	1 x 1.5/2.0ml	11	42
		708.051	1 x 15ml conical	17	120

*only possible with adapter 708.050 or adapter 708.051



The intuitive control panel makes it easy for anyone to operate Hermle Centrifuges straight away.



The Perfect Fit



Easy Handling:

- The ergonomic control panel is very user-friendly and enables a smooth and swift operation process.
- There is no need to remove surgical gloves, during operation.
- Strictly a HERMLE application, you can store up to 99 different programs.
- Make yourself comfortable; operate this model from your laptop or computer. Our multi-functional software, „H-Control“, allows you to control the centrifuge independently and save your protocols (this function has to be ordered separately).
- For re-assurance that your samples are finished, an acoustic signal will sound when the centrifugation is complete (this function can be deactivated).

Safety:

- The Z 327 and Z 327 K have an automatic imbalance shut off system
- There is over speed protection incorporated for each rotor.
- You can only start the models when the centrifuge lid is closed.
- In case of operation malfunction, an error code will appear on the display; this helps to indicate the reason for the malfunction and to eliminate it.
- Its´ stable and firm design, made of massive steel, ensures excellent mechanical protection.
- The buckets of the swing out rotor 221.71 V20 are hermetically sealable.

Efficient and Versatile:

- Due to the wide range of adapter and rotor options, models Z 327 and Z 327 K can hold all common tubes and bottles, up to 200 ml.
- Due to the easy rotor exchange, you can switch between different kinds of rotors like swing-out, microlitre, microtitre or big volume fixed angle rotors.
- Despite the high capacity, the design of these devices is compact and space saving, even the Z 327 K with its powerful refrigeration system.
- Profit from our „pre-cooling“ function, cool down the rotor rapidly to your desired temperature. For this, the centrifuge automatically determines the necessary speed for each individual rotor (only Z 327 K).

More from HERMLE - a wide range of options



Universal Centrifuge Z 366 K

max. speed 16,000rpm
max. volume 6 x 250ml



Compact Centrifuge Z 207 A

max. speed 6,800 rpm
max. volume 8 x 15ml

For more Information, please visit our website www.hermle-labortechnik.de

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