Universal Centrifuges

Z 327

Z 327 K

HERMLE
LABORTECHNIK

4 x 200 ml

Z 327
Z 327 K

IVD*

Z 327

IVD*

Z 327 K

* This centrifuge model and its accessories are an IVD device according to IVDR (EU) 2017/746. It is intended for the separation of mixtures of substances of different densities, in particular for the preparation and processing of samples from the human body in the context of an in vitro diagnostic application, in order to enable the intended use of the in vitro diagnostic medical device. It must not be used to determine any measured values and after centrifugation, no components of human origin may be implanted or administered back into the body.

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 (W x H x D)
Z 327 K:	40 cm x 36 cm x 70 cm (W x H x D)
Weight	
Z 327 / Z 327 K:	43 kg / 60 kg
Power input:	
Z 327 / Z 327 K:	460 W / 660 W
Order No.:	
Z 327:	315.00 V01 - Z 327, 230 V / 50-60 Hz 315.00 V02 - Z 327, 120 V / 50-60 Hz
Z 327 K:	337.00 V01 - Z 327 K, 230 V / 50-60 Hz 337.00 V02 - Z 327 K, 120 V / 50-60 Hz

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

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

Adapter

Order No.: 221.71 V20

Swing out rotor 4 place
Angle: 0-90°

605.100
Bucket for Adapter

605.102
Lid for Bucket | hermetically sealed

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	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	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 Vakut.®	1.8-7 ml Vakut.®	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

*only without bucket lid

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	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	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 Vakut.®	1.8-7 ml Vakut.®
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 2 x 3 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.:	Adapter	Ø [mm]	Length [min/max.]:
without	1 x 15 ml Glass	17.0	95/115
without	1 x 15 ml conical	17.0	120
701.011	1 x 7 ml	13.5	95/115
701.012	1 x 5 ml (RIA)	13.5	70/90
701.015	1 x 1.5/2.0 ml	11	40
701.018	1 x 4.5-10 ml Sarstedt®	11-16	90/92

Accessories Z 327 and Z 327 K

Rotor/Bucket

Adapter

Order No.: 221.54 V20

Angle rotor 12 x 15 ml
Angle: 32°

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	4-7ml Vakut.®	1.8-5 ml Vakut.®	1.5/2.0 ml	6-10 ml Sarstedt®/ Vakut.®
Tubes Ø in mm	17	17	13	13	11	16
Length min./max. in mm	120	105/120	100	75	40	92/107
Order No. Adapter	without	without	701.011	701.012	701.015	701.018

Order No.: 221.55 V20

Angle rotor 6 x 50 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	30ml	16 ml	15 ml conical	15 ml RB
Tubes Ø in mm	29	29	25	18	17	17
Length min./max. in mm	116	100/120	92/95	100/105	120	97/120
Order No. Adapter	without	without	708.019	708.003	708.030	708.030

Order No.: 220.78 V21

Angle rotor 6 x 85 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.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 85 ml	38	113
707.003	1 x 50 ml	29	105
707.004	1 x 30 ml conical	29	116
707.002	1 x 30 ml	25	90/103
707.015	1 x 16 ml	18	103/110
707.000	2 x 15 ml	17	95/100
707.001	1 x 15 ml	17	103/110
707.014	1 x 15 ml conical	17	120

Order No.: 221.18 V21

Angle rotor 6 x 85 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.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 85 ml	38	113
707.003	1 x 50 ml	29	105
707.004	1 x 50 ml conical	29	116
707.002	1 x 30 ml	25	90/103
707.015	1 x 16 ml	18	103/110
707.000	2 x 15 ml	17	95/100
707.001	1 x 15 ml	17	103/110
707.014	1 x 15 ml conical	17	120

Order No.: 221.20 V20

Angle rotor 4 x 85 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.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 85 ml	38	113
707.003	1 x 50 ml	29	105
707.004	1 x 50 ml conical*	29	116
707.002	1 x 30 ml	25	90/103
707.015	1 x 16 ml	18	103/110
707.000	2 x 15 ml	17	95/100
707.001	1 x 15 ml	17	103/110
707.014	1 x 15 ml conical*	17	120

*only without rotor lid

Order No.: 221.22 V20

Angle rotor 6 x 50 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.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 50 ml round	29	95/115
708.019	1 x 30 ml	25	92/95
708.003	1 x 16 ml	18	100/105
708.004	1 x 15 ml	17	100/105
708.017	1 x 15 ml conical*	17	120

*only without rotor lid

Accessories Z 327 and Z 327 K

Rotor/Bucket	Adapter

Order No.: 221.28 V21

Angle rotor 20 x 10 ml
Angle: 30°

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

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 10 ml	16	80

Order No.: 221.17 V21

Angle rotor 30 x 1.5/2.0 ml
Angle: 45°

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

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 2.0 ml	11	40
without	1 x 1.5 ml	11	40
704.005	1 x 0.5 ml	8	45
704.004	1 x 0.4/0.2 ml PCR	6	45

Order No.: 220.87 V22

PPS - Lid

Angle rotor 24 x 1.5/2.0 ml
Angle: 45° I hermetically sealed

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

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 2.0 ml	11	40
without	1 x 1.5 ml	11	40
704.005	1 x 0.5 ml	8	45
704.004	1 x 0.4/0.2 ml PCR	6	45

Order No.: 220.87 V20

Alu - Lid

Angle rotor 24 x 1.5/2.0 ml
Angle: 45° I hermetically sealed

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

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 2.0 ml	11	40
without	1 x 1.5 ml	11	40
704.005	1 x 0.5 ml	8	45
704.004	1 x 0.4/0.2 ml PCR	6	45

Order No.: 221.23 V20

Angle rotor 12 x 1.5/2.0 ml
Angle: 40°

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

Order No.:	
704.004	0.4 ml Tubes (Ø 6 x 45 mm) Adapter Kid (6 Pieces)
704.005	0.5 ml Tubes (Ø 8 x 32 mm) Adapter Kid (6 Pieces)
704.011	1.5 ml Adapter for full performance. (necessary from 16,000 xg) (6 Pieces)

Order No.: 221.68 V20

Angle rotor 44 x 1.5/2.0 ml
Angle: 32°/55°

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

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 2.0 ml	11	40
without	1 x 1.5 ml	11	40
704.005	1 x 0.5 ml	8	45
704.004	1 x 0.4/0.2 ml PCR	6	45

Accessories Z 327 and Z 327 K

Rotor/Bucket	Adapter

Order No.: 221.38 V20

Angle rotor 4 x 8-place PCR Stripes
Angle: 45°

Acceleration in s: 14/126
Deceleration in s: 15/154
max. speed: 15,000 rpm
RCF-Value: 15,343 xg
max. radius: 6.1 cm
max. Ø: 6 mm
Temp. at max. speed: 2°C

Order No.: 221.35 V20

Angle rotor 12 x 5 ml Tubes
Angle: 45°

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: 18,624 xg
RCF-Value: 21,379 xg
max. radius: 8.5 cm
max. Ø: 17 mm
Temp. at max. speed: 2°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 5.0 ml conical	17	60
701.015	1 x 1.5/2.0 ml	11	40
701.016	1 x 1.0 ml Cryo, flat	12.6	41
701.017	1 x 1.8 ml Cryo, round	12.6	48

Order No.: 221.52 V20

Angle rotor 10 x 50 ml conical
Angle: 38°

Acceleration in s: 59/374
Deceleration in s: 35/1.698
max. speed: 7,500 rpm
RCF-Value: 8,141 xg
max. radius: 13 cm
max. Ø: 29 mm
Temp. at max. speed: 0°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
708.050	1 x 15 ml RB	17	97/123
701.011*	1 x 7 ml	13.5	95/115
701.012*	1 x 5 ml	13.5	70/90
701.015*	1 x 1.5/2.0 ml	11	42
708.051	1 x 15 ml conical	17	120

*only possible with adapter 708.050

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 16,000 rpm
max. volume 6 x 250 ml

Compact Centrifuge Z 207 A

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

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

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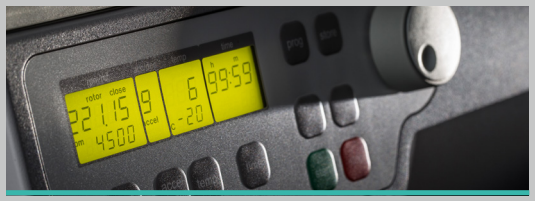

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