

Velocity

Laboratory Centrifuge

14 and 14R Pro
17 and 17R Pro
18R Plus



Dynamica
A Techcomp Company

dynamica-sci.com

Velocity

The Versatile Centrifuge

The Velocity centrifuge is available with or without refrigeration, a letter R signifying a refrigerated model.

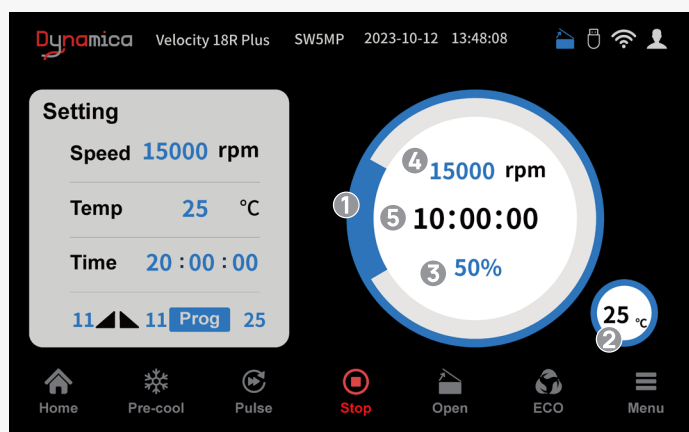


Velocity 18R Plus

The Velocity 18R Plus delivers exceptional capacity (4 x 400 ml*, 36 x 15 ml, 16 x 50 ml), a wider range of rotor options, refrigerated centrifugation and an impressive maximum speed of 18,000 RPM (30,318 xg). All from the convenience of your laboratory bench.

* Bucket capacity is 400 ml

18R Plus Touchscreen Interface



Real-time run status display

Clear and intuitive display of run status.

- 1 As the centrifuge operates, the blue circular bar will rotate in a continuous circular motion
- 2 Real-time actual temperature of the centrifuge chamber
- 3 Run progress
- 4 Real-time actual speed
- 5 Time remaining

18R Plus Touchscreen Interface



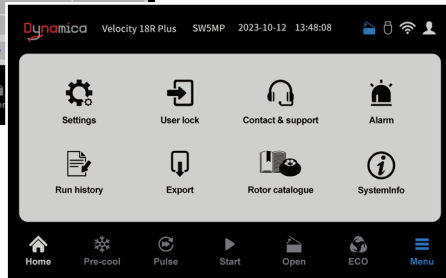
User Lock with Password Protection

Make laboratory management safer and protect your valuable samples and data.

- When user lock is enabled, a user must login to access the device. This function can be disabled if required.
- User Lock has three permission levels including administrator, supervisor and user.
- Ability to register up to 100 users



Operation Record Storage - Store up to 1000 operation records

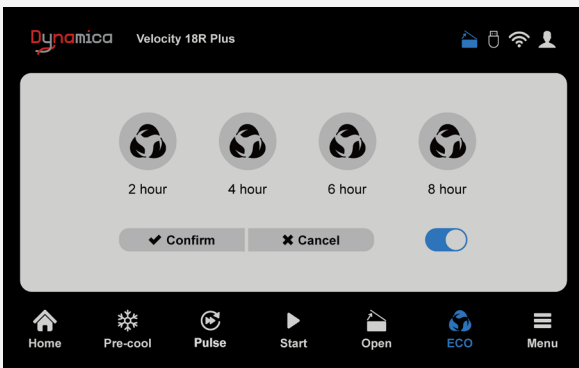


Data Compliance and Management

Complies with GxP requirements

The Dynamica Velocity 18R Plus has comprehensive data management functions that allow centrifuge data to be stored and exported for easy tracking.

USB Data Export - Easily transfer data using USB port



Intelligent Temperature Control and Eco Shut-Down Mode

- Eco shut-down allows you to set the duration for which the compressor will operate after the centrifuge has finished its run.
- When Eco shut-down is activated, the set temperature is maintained using the compressor for the amount of time selected: 2, 4, 6, or 8 hours. Once this time has exceeded, the compressor will switch off.
- When Eco mode is deactivated, the set temperature is maintained continuously using the compressor.

Velocity 14/14R Pro

The Velocity 14 Pro and Velocity 14R Pro feature a compact footprint and provide the flexibility to alternate from micro-volume centrifugation to medium-volume centrifugation at an impressive maximum speed of 14,000 RPM (22,219 xg).

The Velocity 14R Pro also provides refrigeration to maintain sample integrity.



Velocity 17/17R Pro

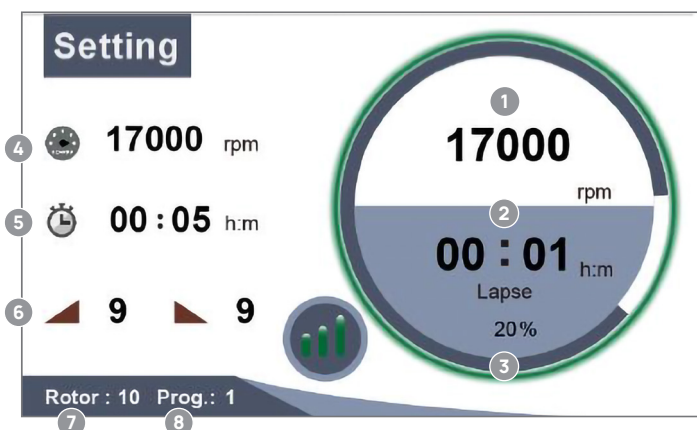
The Velocity 17 and 17R Pro offer a compact but powerful solution for your lab. With a maximum speed of 17,000 rpm (25,507 xg), the Velocity 17 range provides speed and flexibility with auto-locking rotor as standard. Our Velocity 17 centrifuge has a high imbalance tolerance making it one of the safest product on the market.

User experience is at the heart of our design. Auto-rotor recognition and a new information rich display, plus 10 available programs and a quick key for shortcuts.

Refrigeration and pre-cooling is available with an impressive temperature range of -20 °C to 40 °C.



Velocity 14 Pro and 17 Pro LCD Screen



- 1 Actual speed
- 2 Actual Running Time
- 3 Progress %
- 4 Set speed
- 5 Set time
- 6 Accel/Decel
- 7 Rotor ID
- 8 Program

Laboratory Applications

How can a Velocity Centrifuge benefit your lab?

The Velocity range of centrifuges are compact, safe and reliable. Designed for benchtop use, they offer your laboratory high performance and flexibility. Suitable for general and research purposes, they can be used for a wide variety of applications including:

- Cell sedimentation, density gradient centrifugation of cells, flotation purification of cells.
- Small to medium volume extraction.
- Separating and purifying proteins, nucleic acids, plasmids and other components with additional kits.
- Precipitation of virus, density gradient centrifugation of virus.
- Pre-treatment of biological products, chemical polymer products, nanomaterials and pharmaceutical purification.
- PCR matching and fragment separation of biological macromolecules.



Equipment Features



18R Plus with Large Colour Touchscreen

Our 18R Plus centrifuge contains an easy to operate 7-inch LCD colour touchscreen, allowing you to set your run parameters with ease.

The screen contains an energy-saving mode, with screen brightness automatically decreasing following a long period of inactivity.



User Friendly Operation

Enter run parameters with ease utilizing our simple keypad. Monitor your run at a glance with our brightly light LCD interface which displays all run parameters.



Rotor Auto-Lock

Change your rotor in seconds with our auto-locking rotor mechanism. Simply place the rotor onto the drive shaft to lock your rotor into place.

Once centrifugation is complete, lift the rotor from the drive shaft to remove. Quick, easy, and safe.



Equipment Features



Auto Rotor Recognition

Automatic rotor recognition and confirmation once centrifugation has commenced, including rotational speed calculation and optimum temperature control. New rotors can be easily loaded onto the onboard database as they are introduced.



Actual Sample (Rotor) Temperature Display

The temperature of the rotor (and hence samples) is displayed on the LCD panel during centrifugation. This allows more precise, reproducible and efficient experimentation compared to displaying the temperature of the chamber or temperature at the sensor.



High Imbalance Tolerances

Innovative motor engineering and mounting (including a flexible drive shaft) allow for greater imbalance tolerances, so much so that samples can be balanced simply by eye. No more weighing – just fill tubes or bottles to within 5 mm of each other (2 mm of each other for specific rotors).



Powerful Refrigeration (R Series)

A powerful, non-CFC compressor cools the chamber quickly whilst maintaining the rotor at a set temperature during centrifugation. The twin cooling fans (one for the compressor and motor respectively) dissipate heat quickly to improve cooling efficiency and extend the motor lifespan.



Equipment Features



Quiet Operation

Contains noise abating insulation within the console to reduce the audible operating noise to $\leq 58\text{dB}$.



Acceleration and deceleration

The innovative high-torque drive technology effortlessly accelerates even the heaviest rotors to terminal velocity quickly and efficiently. A full load will achieve maximum velocity within a few minutes. 10 pre-set acceleration and 11 pre-set deceleration profiles (including coasting deceleration) ensure the best separation, even for the most delicate density gradients*.



Wide variety of Rotors

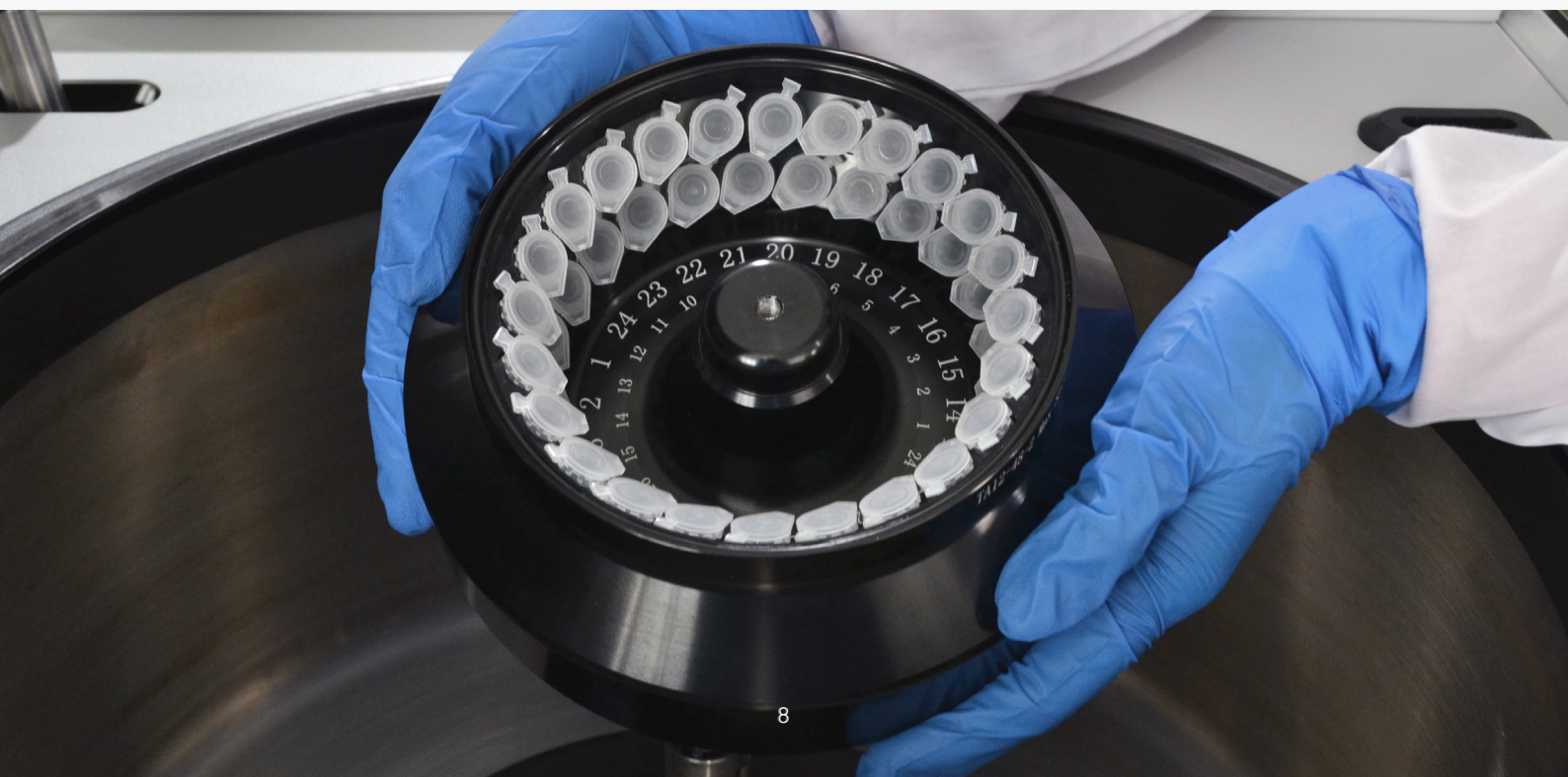
Our wide variety of rotors ensures that you can find the rotor that's right for your application. Our rotor selection includes; fixed angle, swing out, and micro-plate rotors which fits tube sizes from 0.2ml to 400ml.



Safe, Durable and Reliable

The imbalance sensor monitors the centrifuge whilst running to ensure safety in all measures. Error codes and alarms are displayed in the event of an issue, to allow for quick determination and rectification of any problems. Our centrifuges are built to last, with a robust design to withstand all laboratory environments.

*For Velocity 18R Plus, 11 pre-set acceleration and 12 pre-set deceleration profiles (including coasting deceleration)









































Dynamica Rotor Portfolio

Designed for diverse laboratory application



Swing Out Rotors


● Velocity 18R Plus ● Velocity 17/17R Pro ● Velocity 14/14R Pro

V14 / 14R Pro	V17 / 17R Pro	V18R Plus	Rotor	P/N	Rotor ID	rpm	xg	Tube Volume	Tube Dimension (mm)	Tube Qty.	Adaptor							
-	-	●	 SW5	0000442*	50	4,800	4,173	 250 ml PP bottle	Φ61.6 x 135	1 x 4	/							
													 5 ml blood collection tube	Φ12.3 x 106	7 x 4	 SW5.5B	0024451	
														 10 ml blood collection tube	Φ12.3 x 115	7 x 4	 SW5.7B	0025831
														 10 ml blood collection tube	Φ16 x 100	7 x 4	 SW5.10B	0034284
														 10 ml blood collection tube	Φ15 x 80	7 x 4	 SW5.10P	0027331
														 10 ml glass tube	Φ12 x 106	7 x 4	 SW5.10G	0025834
														 15 ml glass tube	Φ16.5 x 113	7 x 4	 SW5.15G	0024458
														 15 ml culture tube	Φ17 x 119	3 x 4	 SW5.15CA	0025833
														 50 ml skirted tissue culture tube	Φ29.5 x 76	1 x 4	 SW5.50CB	0025835
														 15 ml PP tube	Φ16.5 x 113	4 x 4	 SW5.15P	0024449
														 50 ml glass tube	Φ35 x 100	1 x 4	 SW5.50G	0025832
														 50 ml culture tube	Φ30 x 116	1 x 4	 SW5.50C	0026346
-	-	●	 SW5.SC Plastic Seal Caps	0017717	/													
-	-	●	 SW5LSC	0036153	15	4,200	3,388	 15 ml culture tube	Φ16.5 x 120	7 x 4	 SW5L15C	0036165						
														 50 ml culture tube	Φ29.6 x 116	3 x 4	 SW5L50C	0036166
															 250 ml bottle	Φ62 x 120	1 x 4	 SW5L250P
-	-	●	 Stand for swing out rotor	0023787	/													
-	-	●	 SW5MP	0000432**	55	4,800	3,120	 96 microplate	128 x 68 x 15	1 x 2	/							
															 96 deep well plate	128 x 65 x 50	1 x 2	/
●	●	-	 SW4C	0023164*	5	4,000	1,780	 5 ml blood (R) collection tube	Φ12.5 x 106	1 x 4	/							

*include bucket x 4. **include plate carrier x 2. † Non-refrigerated model. (C) Conical Bottom. (R) Round Bottom

Swing Out Rotors

































































● Velocity 18R Plus ● Velocity 17/17R Pro ● ● Velocity 14/14R Pro

V14 / 14R Pro	V17 / 17R Pro	V18R Plus	Rotor	P/N	Rotor ID	rpm	xg	Tube Volume	Tube Dimension (mm)	Tube Qty.	Adaptor		
-	-	●	 SW5L	0033239	15	4,200	3,550	 2 ml blood collection tube	Φ12.5 x 82	15 x 4		SW5L.2B	0033977
								 5 ml blood collection tube	Φ12.5 x 106	15 x 4		SW5L.5B	0033981
								 8 ml blood collection tube	Φ15.3 x 106	14 x 4		SW5L.8B	0033985
								 15 ml culture tube	Φ16.5 x 120	9 x 4		SW5L.15C	0033249
								 15 ml PP tube	Φ16.5 x 115	9 x 4		SW5L.15P	0033989
								 50 ml culture tube	Φ29.6 x 116	4 x 4		SW5L.50C	0033254
								 50 ml PP tube	Φ29 x 113	4 x 4		SW5L.50P	0033993
								 250 ml flat bottle	Φ62 x 120	1 x 4		SW5L.250P	0033259
								 300 ml flat bottle	Φ72 x 100	1 x 4		SW5L.300P	0034362





Fixed Angle Rotors

● Velocity 18R Plus ● Velocity 17/17R Pro ● ● Velocity 14/14R Pro

V14 / 14R Pro	V17 / 17R Pro	V18R Plus	Rotor	P/N	Rotor ID	rpm	xg	Tube Volume	Tube Dimension (Φ x H mm)	Tube Qty.	Adaptor		
-	●	●	 FA18B	0017942	● 36 ● 10	● 18,000 ● 17,000	● 24,990 ● 22,294	 1.5/2 ml (C/R)	Φ11 x 40	18	/		
								 0.5 ml micro tube	Φ8 x 32			FA15.05	0026054
								 0.2 ml micro tube	Φ6 x 24			FA15.02	0026053
-	●	●	 FA18C	0030462	01	● 18,000 ● 16,000 ● 15,000†	● 30,318 ● 22,896 ● 20,124	 10 ml (R)	Φ16 x 82	10	/		
●	●	●	 FA15A	0000408	19	● 15,000 ● 14,000 ● 14,000	● 21,658 ● 18,866 ● 18,866	 1.5/2 ml	Φ11 x 40	24	/		
								 0.2 ml micro tube	Φ6 x 24			FA15.02	0024441
								 0.5 ml micro tube	Φ8 x 32			FA15.05	0024443
●	●	●	 FA15B	0000415	16	● 15,000 ● 12,000 ● 15,000	● 21,835 ● 13,974 ● 21,835	 50 ml (R)	Φ29 x 106	4	/		
								 15 ml (R)	Φ18 x 100			FA15.15R	0024372
								 15 ml (R)	Φ15.5 x 113			FA15.15R	0024361
								 15 ml (C)	Φ17 x 119			AF15.15C*	0024359
●	●	●	 FA15C	0000422	18	● 15,000 ● 14,000 ● 12,000† ● 15,000 ● 12,000†	● 23,294 ● 20,291 ● 14,907† ● 23,293 ● 14,970†	 50 ml (R)	Φ29 x 106	6	/		
								 15 ml (R)	Φ18 x 100			FA15.15R	0024348
								 15 ml (R)	Φ15.5 x 113			FA15.15R	0024329
								 15 ml (C)	Φ17 x 119			AF15.15C*	0024327
-	-	●	 FA15D	0000419	17	15,000	20,900	 80 ml PP (R)	Φ38 x 106	4	/		
								 50 ml (R)	Φ29 x 106			FA15D.50R	0026051
								 50 ml (C)	Φ29 x 117			FA15D.50C*	0025841
								 15 ml (C)	Φ17 x 119			FA15D.15C*	0024448
								 15 ml (R)	Φ16.5 x 113			FA15D.15R	0024440
●	●	●	 FA15E	0031050	● 06 ● 08 ● 08	● 15,000 ● 14,000 ● 14,000	● 22,600 ● 19,721 ● 19,721	 5 ml (C)	Φ16.7 x 60	12	/		
●	●	●	 FA15F	0031047	● 04 ● 07 ● 07	● 15,000 ● 14,000 ● 15,000 ● 14,000†	● 22,600 ● 19,721 ● 22,639 ● 19,721†	 5 ml (R)	Φ13.5 x 53.5	16	/		
●	●	●	 FA15G	0034277	09	● 15,000 ● 12,000† ● 15,000 ● 15,000 ● 12,000†	● 25,004 ● 16,002† ● 25,004 ● 25,004 ● 16,002†	 50 ml (C)	Φ30 x 116	6		FA15G.15C	0034705
								 15 ml (C)	Φ16.5 x 120				
●	●	●	 FA15H	0035479	● 21 ● 17	● 15,000 ● 14,000 ● 12,000† ● 15,000 ● 15,000 ● 12,000†	● 24,950 ● 21,737 ● 15,970† ● 24,953 ● 15,970†	 50 ml (R)	Φ29 x 113	6	/		
								 15 ml (C)	Φ17 x 119			FA15H.15C	0035592
								 15 ml (R)	Φ16.5 x 113			FA15H.15R	0035591
●	●	●	 FA15K	0035480	22	● 15,000 ● 14,000 ● 12,000† ● 15,000 ● 15,000 ● 12,000†	● 23,210 ● 20,225 ● 14,859† ● 23,218 ● 14,859†	 5 ml (R)	Φ13.5 x 53.5	20	/		
●	●	●	 FA15L	0035481	● 23 ● 14	● 15,000 ● 14,000 ● 12,000†	● 25,516 ● 22,219 ● 16,324†	 1.5/2 ml (R/C)	Φ11 x 40	30	/		
●	●	●	 FA14C	0030667	13	● 14,000 ● 14,000 ● 15,000 ● 14,000†	● 20,926 ● 20,926 ● 24,023 ● 20,926†	 50 ml (C)	Φ30 x 116	4	/		
								 15 ml (R)	Φ16.5 x 113			FA14C.15R	0024469
								 15 ml (C)	Φ17 x 119			FA14C.15C	0024360

Fixed Angle Rotors

● Velocity 18R Plus ● Velocity 17/17R Pro ● ● Velocity 14/14R Pro

V14 / 14R Pro	V17 / 17R Pro	V18R Plus	Rotor	P/N	Rotor ID	rpm	xg	Tube Volume	Tube Dimension (Φ x H mm)	Tube Qty.	Adaptor		
●	●	●	 FA14D	0035355	11	14,000 12,000†	20,203 14,843†	 0.2 ml micro tube (C)	Φ6 x 21.5	48	/		
●	●	●	 FA14E	0035356	12	14,000 12,000†	21,123 15,519†	 1.5/2 ml (R/C)	Φ11 x 40	48	/		
●	●	●	 FA12A	0000402	03	12,000	14,100	 0.2 ml micro tube	Φ6 x 24	48	/		
●	●	●	 FA12B	0031053	02	12,000	13,840	 1.5/2 ml	Φ11 x 40	48	/		
-	-	●	 FA10B	0020867	20	10,000	11,400	 50 ml (C)	Φ30 x 116	6	/		
		 15 ml (R)						Φ17 x 119					
-	-	●	 FA5A	0031390	07	5,600	4,700	 15 ml (C)	Φ17 x 120	12	/		
-	-	●	 FA11D	0036619	N/A	11,000	15,584	 100 ml (R)	TBA	6	/		
-	-	●	 FA10C	0036752	N/A	10,000	13,147	 50 ml (C)	Φ 29 x 117	8	/		
-	-	●	 FA8A	0036707	N/A	8,000	10,210	 250 ml (C)	Φ 61.6 x 135	4	/		

*Only for use without rotor lid. † Non-refrigerated model.
(C) Conical Bottom. (R) Round Bottom



Velocity 14 / 14R Pro Specification



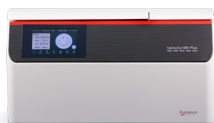
MODEL	Velocity 14 pro	Velocity 14R pro
Maximum Speed	14,000 RPM	
Maximum RCF	20,926 xg	22,219 xg
Maximum Capacity	6 x50 ml (FA15C / FA15G)	
Driving System	Brushless DC Motor	
Temperature Setting Range	N/A	-20 °C to 40 °C
Refrigerant	N/A	R134a
Acceleration / Deceleration mode	1-10 stages Acceleration / 0-10 stages Deceleration	
Timer	Running time from 1 min to 99 hours 59 mins. or *HOLD function*	
Program memory	10 Programs	
Main Power	220 V Single phase, ~220-240 V±10%, 50/60 Hz±1 Hz, 1200 VA	
Dimensions (W x D x H)	340 x 490 x 380 mm	560 x 500 x 380 mm
Weight	40 kg	60 kg
Packing Size (W x D x H)	650 x 520 x 540 mm	740 x 650 x 640 mm
Shipping Weight	60 kg	70 kg
Ordering Information		
Product Number	0035661	0035660
Description	Velocity 14 Pro (220 V, 50/60 Hz)	Velocity 14R Pro (220 V, 50/60 Hz)

Velocity 17 / 17R Pro Specification



MODEL	Velocity 17 pro	Velocity 17R Pro
Maximum Speed	17,000 RPM	
Maximum RCF	22,294 xg	25,507 xg
Maximum Capacity	6 x50 ml	
Driving System	Brushless DC Motor	
Temperature Setting Range	N/A	-20 °C to 40 °C
Refrigerant	N/A	CFC-free refrigeration system
Acceleration / Deceleration mode	1-10 stages Acceleration / 0-10 stages Deceleration	
Timer	1 min to 99 h 59 min. or "Hold for continuous run"	
Program memory	Store 10 complete centrifuge runs	
Rotor recognition	Automatic rotor recognition and speed correction	
Imbalance indication	Automatic imbalance indication with safety cut off	
Safety Devices	Motor driven lid lock, audio signal after stop	
Noise Level	≤58 dB(A)	
Main Power	AC 220 V / 50-60 Hz (Voltage Fluctuation ±10%) 600 VA / 10 A	AC 220 V / 50-60 Hz (Voltage Fluctuation ±10%) 1200 VA / 10 A
Dimensions (W x D x H)	340 x 490 x 380 mm	560 x 500 x 380 mm
Weight	40 kg	60 kg
Packing Size (W x D x H)	650 x 520 x 540 mm	740 x 650 x 640 mm
Shipping Weight	60 kg	70 kg
Ordering Information		
Product Number	0035304	0035303

Velocity 18R Plus Specification



MODEL	Velocity 18R Plus
Maximum Speed	18,000 RPM
Maximum RCF	30,318 x g (FA18C)
Maximum Capacity	4 x 400 ml (SW5L) (bucket capacity)
Driving system	Inverted induction motor
Speed Control Range	300 rpm to 18,000 rpm (100 rpm increments)
Acceleration / Deceleration mode	1-11 stages / 0-11 stages
Temperature setting range	-20 °C to 40 °C in steps of 1 °C
Refrigerant	R290
Temperature accuracy	± 2 °C
Timer	Running time from 1 sec to 99 hours 59 min 59 sec or "HOLD function"
Program memory	100 Programmes
Display	Colour Touch Screen
Noise Level	≤ 58 dB (A)
Main Power	220 V: Single phase, ~220-240 V, 50/60 Hz (110 V 60 Hz available)
Dimensions (W x D x H)	670 x 625 x 380 mm
Weight	88 kg
Packing Size (W x D x H)	910 x 770 x 800 mm
Shipping Weight	120 kg
Ordering Information	
Product Number	0036475
Description	Velocity 18R Plus (220 V-240 V, 50 Hz)



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