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CVP-2, Centrifuge-Vortex for PCR plates

DESCRIPTION

After many years of Combined Centrifuge-Vortex concept success, we are proud to introduce the long awaited Centrifuge/Vortex for PCR plates, **CVP-2**, to the sample preparation market.

The Spin–Mix–Spin technology is intended to spin-down micro volumes of reagents on the well's bottom (first centrifugation spin), following mixing (mix) and spin-down the reagents again from the walls and cap of the well (second spin). We named this repetitive algorithm of operation that is aimed at reducing the mistakes during sample preparation for PCR analysis a "sms–algorithm". This algorithm is registered by Biosan.

CVP-2 is a fully automatic device for reproducing sms–algorithm for 2 PCR plates at the same time, thus saving time considerably. A must-have instrument for PCR and DNA analyses laboratory.

CVP-2 is 4 devices combined in 1:

1. Centrifuge — Maximum RCF: 225 × g (1500 rpm)
2. Vortex (300–1200 rpm; Vortexing regulation timer 0–60 sec)
3. Centrifuge/Vortex
4. SMS–cycler for realization of the "sms–algorithm"

Plate type:

Without adapter:
96-well skirted PCR plates, PCR strips in a frame;

With adapter **AP-96***:
96-well semi-skirted and non-skirted PCR plates;

With adapter **AP-384***:
384-well PCR plates;

* - Adapters are made of Ertacetal® C. Autoclavable

CAT. NUMBER

Including adapters AP-96	Including adapters AP-96
BS-010219-A02	100-240VAC 50/60Hz Euro plug
BS-010219-A03	100-240VAC 50/60Hz UK plug
BS-010219-A04	100-240VAC 50/60Hz AU plug
BS-010219-A05	100-240VAC 50/60Hz US plug
BS-010219-FK	IQ OQ document
BS-010219-GK	PQ document

SPECIFICATIONS

SMS-cycle regulation	1 - 999 cycles
Speed regulation range	300–1500 rpm
Min. RCF at 1500 rpm	185 x g
Vortex regulation range	300–1200 rpm
Setting resolution	100 rpm
Timer sound signal	+
Display	LCD, 2 x 16 signs
Centrifugation mode time range	0–30 min (increment 1 s; after 1 min - 1 min)
Vortex mode time range	0–60 sec (increment 1 sec)
Chamber diameter	210 mm
Overall dimensions (W×D×H)	285 × 350 × 190 mm
Weight	6.15 kg
Input current/power consumption	12 V, 1.5 A / 18 W
External power supply	Input AC 100–240 V; 50/60 Hz; Output DC 12 V

ACCESSORIES

AP-96
BS-010219-DK
adapter

2 adapters for 96-well semi-skirted and non-skirted PCR plates - made of Ertacetal® C. Autoclavable

AP-384
BS-010219-EK
adapter

2 adapters for 384-well plates - made of Ertacetal® C. Autoclavable

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FV-2400, Minicentrifuge-Vortex Microspin

Basic Plus
Product Class

DESCRIPTION

Minicentrifuge-vortex Microspin **FV-2400** is specially designed for genetic engineering research (for PCR–diagnostics experiments). Units can be used in microbiological, biochemical, clinical laboratories and industrial biotechnological laboratories.

Micro–Spin provides simultaneous mixing and separation of samples, using centrifuge and mixing modules, located on the common spin–module.

FV-2400 is an "open type" centrifuge (without lid), that increases the speed of centrifugation and resuspension operations.

SPECIFICATIONS

Rotation speed (fixed) (50 Hz)	2800 rpm
Max. RCF (50 Hz)	500 x g
Rotation speed (fixed) (60 Hz)	3500 rpm
Max. RCF (60 Hz)	700 x g
Continuous and impulse operation modes	+
Overall dimensions (W×D×H)	120x170x120 mm
Weight	1.4 kg
Power consumption (230V / 120 V)	25 W (0.1 A) / 30 W (0.27 A)
Nominal operating voltage	120 or 230 V; 50/60 Hz

CAT. NUMBER

	Including rotors R-1.5M, R-0.5/0.2M
BS-010201-AAA	230VAC 50/60Hz Euro plug
BS-010201-AAB	230VAC 50/60Hz UK plug
BS-010201-AA3	230VAC 50/60Hz AU plug
BS-010201-AAC	100VAC 50/60Hz US plug, 120VAC 60Hz US plug
BS-010201-CK	IQ OQ document
BS-010201-DK	PQ document

ACCESSORIES

R-0.5/0.2M
BS-010201-BK
rotor

Rotor for 12 × 0.5 ml and 12 × 0.2 ml microtest tubes

R-1.5M
BS-010201-AK
rotor

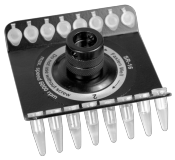
Rotor for 12 x 1.5/2 ml microtest tubes

R-2/0.5
BS-010205-CK
rotor

Rotor for 8 x 2/1.5 ml and 8 x 0.5 ml microtest tubes

R-2/0.5/0.2
BS-010205-DK
rotor

Rotor for 6x2/1.5 ml + 6x0.5 ml + 6x0.2 ml microtest tubes



SR-16
BS-010202-AK
rotor

Rotor for 2 x 8-section 0,2 ml microtube strips

SR-64
BS-010201-EK
rotor

Rotor for 8 x 8-section 0,2 ml microtube strips - for any type of strips including paired

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FVL-2400N, Minicentrifuge-Vortex Combi-Spin

Basic Plus
Product Class

DESCRIPTION

Minicentrifuge-vortex Combi–Spin **FVL-2400N** is specially designed for genetic engineering research (for PCR–diagnostics experiments). Units can be used in microbiological, biochemical, clinical laboratories and industrial biotechnological laboratories.

Combi–Spin provides simultaneous mixing and separation of samples, using centrifuge and mixing modules, located on the common spin–module.

FVL-2400N is provided with protection mechanism that stops the rotor motion when the lid is opened.

SPECIFICATIONS

Rotation speed (fixed) (50 Hz)	2800 rpm
Max. RCF (50 Hz)	500 x g
Rotation speed (fixed) (60 Hz)	3500 rpm
Max. RCF (60 Hz)	700 x g
Continuous and impulse operation modes	+
Safety	Stop at open lid
Overall dimensions (W×D×H)	190x235x125 mm
Weight	1.7 kg
Power consumption (230V / 120 V)	25 W (0.1 A) / 30 W (0.27 A)
Nominal operating voltage	120 or 230 V; 50/60 Hz

CAT. NUMBER

Including rotors R-1.5, R-0.5/0.2	Including rotors R-1.5, R-0.5/0.2
BS-010202-AAA	230VAC 50/60Hz Euro plug
BS-010202-AAB	230VAC 50/60Hz UK plug
BS-010202-AA3	230VAC 50/60Hz AU plug
BS-010202-AAC	100VAC 50/60Hz US plug, 120VAC 60Hz US plug
BS-010202-BK	IQ OQ document
BS-010202-CK	PQ document

ACCESSORIES

R-0.5/0.2
BS-010205-BK
rotor

Rotor for 12 x 0.5 ml and 12 x 0.2 ml microtest tubes

R-1.5
BS-010205-AK
rotor

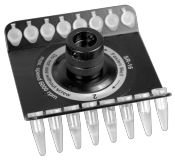
Rotor for 12 x 1.5/2 ml microtest tubes

R-2/0.5
BS-010205-CK
rotor

Rotor for 8 x 2/1.5 ml and 8 x 0.5 ml microtest tubes

R-2/0.5/0.2
BS-010205-DK
rotor

Rotor for 6x2/1.5 ml + 6x0.5 ml + 6x0.2 ml microtest tubes



SR-16
BS-010202-AK
rotor

Rotor for 2 x 8-section 0,2 ml microtube strips

SR-32
BS-010205-FK
rotor

Rotor for 4 x 8-section 0,2 ml microtube strips
* not compatible with Combi-Spins produced before 2015

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MSC-2P, Minicentrifuge-Vortex for PCR plates

DESCRIPTION

MSC-2P is a compact sized digital centrifuge intended to collect droplets, mix reagents and collect once more for improved PCR yield in subsequent analysis. The combination of spin-mix functions ensures fast operation, thorough mixing and repeatable results. Centrifuge rotor can accommodate 2 unskirted or semi-skirted PCR plates at the same time, thus saving time considerably.

MSC-2P is possible to operate in 4 independent modes:

- Centrifuge — Max. 3500 RPM
- Vortex — up to 5 min.
- Centrifuge/Vortex — combined two motion types
- Spin-mix-spin algorithm — up to 10 cycles

The spin-mix-spin algorithm (SMS-algorithm) is designed to collect (or reset) micro volumes of reagents to the bottom of the PCR plate tubes (the first centrifugation or spin), then vortexing (mix) and re-collecting reagents (repeated spin) from the walls and cover. This repetitive algorithm of operations, aimed at reducing sample preparation errors, we call the SMS algorithm.

SPECIFICATIONS

SMS-cycle regulation	1 - 10 cycles
Speed regulation range	500–3500 rpm
Max. RCF	610 x g
Setting resolution	100 rpm
Display	LCD, 2 x 16 signs
Centrifugation mode time range	0–10 min (increment 1 s; after 1 min - 1 min)
Vortex mode time range	0–5 min (increment 1 s; after 1 min - 1 min)
Overall dimensions (W×D×H)	165 × 220 × 230 mm
Weight	2.7 kg
Input current/power consumption	12 V, 2 A / 24 W
External power supply	Input AC 100–240 V; 50/60 Hz; Output DC 12 V

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MSC-3000, Minicentrifuge-Vortex Multi-Spin

Premium Product Class

DESCRIPTION

Minicentrifuge-Vortex Multi–Spin **MSC-3000** is product of many years evolution of Spin–Mix–Spin technology that is intended for collecting micro volumes of reagents on the microtube's bottom (first centrifugation spin), following mixing (mix) and collecting the reagents again from the walls and cap of the microtube (second spin). We named this repetitive algorithm of operation that is aimed at reducing the mistakes during sample preparation for PCR analysis a "sms–algorithm".

Multi–Spin is a fully automatic device for reproducing sms–algorithm for 12 tubes at one time, thus saving time considerably. A must-have instrument for PCR and DNA analyses laboratory.

Multi Spin is four devices combined in one:

1. Centrifuge — Maximum RCF: up to 800 × g
2. Vortex (3 mixing modes — soft, medium, hard; regulated time; Vortexing regulation timer 1–20 sec)
3. Centrifuge/Vortex;
4. SMS–cycler for realization of the "sms–algorithm".

Table to the right compares FVL-2400N,**MSC-3000** and MSC-6000

Multi–Spin allows considerable time saving compared to Combi–Spin by automatically performing cycling program of sample mixing and spinning according to the set spin–mix–spin cycle for 12 microtubes simultaneously.

SPECIFICATIONS

Speed control range	1000–3500 rpm (increment 100 rpm)
RCF max.	800 x g
Spin timer	1 s – 99 min
Vortexing intensity	Soft, medium, hard
Vortexing time	0–20 s (increment 1 s)
SMS-cycle regulation	1 - 999 cycles
Timer sound signal	+
Display	LCD, 2 x 16 signs
Safety	Autostop at open lid
Overall dimensions (W×D×H)	190x235x125 mm
Weight	2.1 kg
Input current/power consumption	12 V, 11 W (0.9 A)
External power supply	Input AC 100–240 V; 50/60 Hz; Output DC 12 V

CAT. NUMBER

Including rotors R-1.5, R-0.5/0.2	Including rotors R-1.5, R-0.5/0.2
BS-010205-AAN	230VAC 50/60Hz Euro plug
BS-010205-AAK	100-240VAC 50/60Hz Multi plug (EU, UK, AU, US)
BS-010205-EK	IQ OQ document
BS-010205-GK	PQ document

ACCESSORIES

R-0.5/0.2
BS-010205-BK
rotor

Rotor for 12 x 0.5 ml and 12 x 0.2 ml microtest tubes

R-1.5
BS-010205-AK
rotor

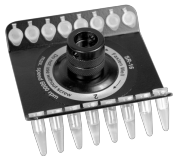
Rotor for 12 x 1.5/2 ml microtest tubes

R-2/0.5
BS-010205-CK
rotor

Rotor for 8 x 2/1.5 ml and 8 x 0.5 ml microtest tubes

R-2/0.5/0.2
BS-010205-DK
rotor

Rotor for 6x2/1.5 ml + 6x0.5 ml + 6x0.2 ml microtest tubes



SR-16
BS-010202-AK
rotor

Rotor for 2 x 8-section 0,2 ml microtube strips

SR-32
BS-010205-FK
rotor

Rotor for 4 x 8-section 0,2 ml microtube strips
* not compatible with Combi-Spins produced before 2015

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MSC-6000, Minicentrifuge-Vortex Multi-Spin

Premium Product Class

DESCRIPTION

Minicentrifuge-Vortex Multi–Spin **MSC-6000** is product of many years evolution of Spin–Mix–Spin technology that is intended for collecting micro volumes of reagents on the microtube's bottom (first centrifugation spin), following mixing (mix) and collecting the reagents again from the walls and cap of the microtube (second spin). We named this repetitive algorithm of operation that is aimed at reducing the mistakes during sample preparation for PCR analysis a "sms–algorithm".

Multi–Spin is a fully automatic device for reproducing sms–algorithm for 12 tubes at one time, thus saving time considerably. A must-have instrument for PCR and DNA analyses laboratory.

Multi Spin is four devices combined in one:

1. Centrifuge — Maximum RCF: up to 2350 × g
2. Vortex (3 mixing modes — soft, medium, hard; regulated time; Vortexing regulation timer 1–20 s)
3. Centrifuge/Vortex;
4. SMS–cycler for realization of the "sms–algorithm".

Table on the right compares FVL-2400N, MSC-3000 and**MSC-6000**

Multi–Spin allows considerable time saving compared to Combi–Spin by automatically performing cycling program of sample mixing and spinning according to the set spin–mix–spin cycle for 12 microtubes simultaneously.

SPECIFICATIONS

Speed control range	1000–6000 rpm (increment 100 rpm)
RCF max.	2350 x g
Spin timer	1 s - 30 min
Vortexing intensity	Soft, medium, hard
Vortexing time	0–20 s (increment 1 s)
SMS-cycle regulation	1 - 999 cycles
Timer sound signal	+
Display	LCD, 2 x 16 signs
Safety	Lid lock
Overall dimensions (W×D×H)	190x235x125 mm
Weight	2.5 kg
Input current/power consumption	24 V, 24 W (1 A)
External power supply	Input AC 100–240 V; 50/60 Hz; Output DC 24 V

CAT. NUMBER

Including rotors R-1.5, R-0.5/0.2	Including rotors R-1.5, R-0.5/0.2
BS-010211-AAL	230VAC 50/60Hz Euro plug
BS-010211-AAQ	230VAC 50/60Hz UK plug
BS-010211-AA4	230VAC 50/60Hz AU plug
BS-010211-AAU	100VAC 50/60Hz US plug
BS-010211-AAM	120VAC 60Hz US plug
BS-010211-CK	IQ OQ document
BS-010211-DK	PQ document

ACCESSORIES

R-0.5/0.2
BS-010205-BK
rotor

Rotor for 12 x 0.5 ml and 12 x 0.2 ml microtest tubes

R-1.5
BS-010205-AK
rotor

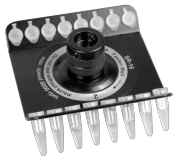
Rotor for 12 x 1.5/2 ml microtest tubes

R-2/0.5
BS-010205-CK
rotor

Rotor for 8 x 2/1.5 ml and 8 x 0.5 ml microtest tubes

R-2/0.5/0.2
BS-010205-DK
rotor

Rotor for 6x2/1.5 ml + 6x0.5 ml + 6x0.2 ml microtest tubes



SR-16
BS-010202-AK
rotor

Rotor for 2 x 8-section 0,2 ml microtube strips

SR-32
BS-010205-FK
rotor

Rotor for 4 x 8-section 0,2 ml microtube strips
* not compatible with Combi-Spins produced before 2015