

ES-20/60, Orbital Shaker-Incubator



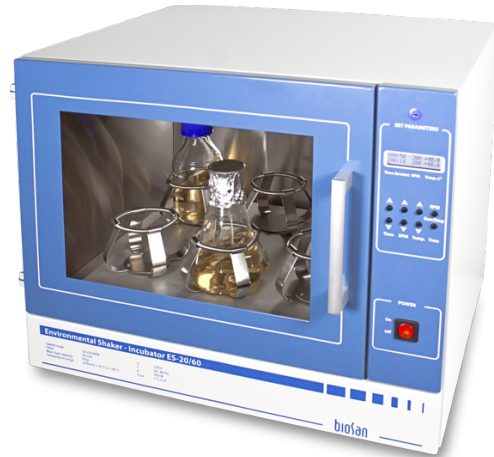
DESCRIPTION

Orbital Shaker-Incubator **ES-20/60** for biotechnological and pharmaceutical laboratories is a professional category equipment designed for cultivation of microorganisms and eukaryotic cells including animal, plant and insect cells. It is also possible to cultivate thermophilic bacteria in **ES-20/60** shaker-incubator.

Shaker is equipped with a direct-drive mechanism for platform motion. It provides reliable and stable operation for the long term experiments needed for cell growth.

Shaker-Incubator **ES-20/60** provides smooth or intensive mixing in flasks installed on the platform.

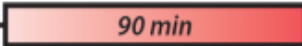
Built-in noiseless thermoresistant brushless fan provides precise temperature distribution inside the chamber (adjustable for up to +80°C). The inner chamber is made of stainless steel. State-of-the-art motor, newest thermal insulation materials, soft-start of the platform motion and temperature PID-control decrease the energy consumption and make the Shaker-Incubator highly energy efficient despite its relatively large size.



SPECIFICATION

Speed control range	50-250 rpm (increment 10 rpm)
Temperature setting range	+25°C... +80°C
Temperature control range	10°C above ambient... +80°C
Temperature setting resolution	0.1°C
Temperature stability	±0.5°C
Temperature accuracy at +37°C	±0.5°C
Temperature uniformity at +37°C	±0.5°C
Maximum load	8 kg
Orbit	20 mm
Digital time setting	1 min-96 hrs / non-stop (1 min increment)
Display	LCD, 2 × 16 signs
Maximum continuous operation time	30 days
Overall dimensions (W×D×H)	590 × 525 × 510 mm
Dimensions of the inner chamber	460 × 350 × 400 mm
Weight	41.1 kg
Nominal operating voltage	230 V, 50/60 Hz or 120 V, 50/60 Hz
Power consumption (230V / 120 V)	450 W (2 A) / 450 W (4.5 A)

Heat up time for ES-20/60

from 25°C +  to 80°C

CAT. NR.

	ES-20/60 w-out platform, incl. power plug
BS-010135-AAA	230VAC 50/60Hz Euro plug
BS-010135-AAB	230VAC 50/60Hz UK plug
BS-010135-AA3	230VAC 50/60Hz AU plug
BS-010135-AAC	120VAC 60Hz US plug
please, inquire	100VAC 50/60Hz US plug
-----	Optional accessories
BS-010135-DK	Platform P-6/1000
BS-010135-AK	Platform P-9/500
BS-010135-CK	Platform P-16/250
BS-010135-BK	Platform P-30/100
BS-010135-FK	Platform PP-400 with silicone mat

ES-20/60, Orbital Shaker-Incubator



BS-010135-JK	Platform UP-168
BS-010126-MK	FC-50, clamp 50ml
BS-010126-HK	FC-100, clamp 100ml
BS-010126-JK	FC-250, clamp 250ml
BS-010126-LK	FC-500, clamp 500ml
BS-010126-İK	FC-1000, clamp 1000ml
BS-010135-KK	TR-21/50, test tube rack, 50ml
BS-010135-LK	TR-44/15, test tube rack, 15ml
BS-010135-HK	IQ OQ document
BS-010135-İK	PQ document

ACCESSORIES



P-6/1000
Platform with 6 clamps for 1000 ml flasks (360x400 mm)

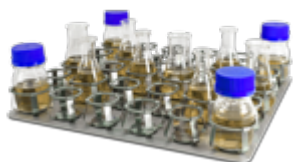


P-9/500
Platform with 9 clamps for 500 ml flasks (360x400 mm)



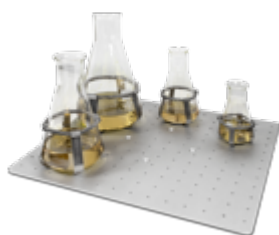
P-16/250
Platform with 16 clamps for 250 ml flasks (360x400 mm)

ES-20/60, Orbital Shaker-Incubator



P-30/100

Platform with 30 clamps for 100 ml flasks (360x400 mm)



UP-168

Universal platform with clamps can accommodate flasks or bottles of different volume sizes. Clamps are not included with platform and need to be ordered separately. (360x400 mm)



FC-50, FC-100, FC-250, FC-500, FC-1000

Clamp for
50 ml - Ø50 mm,
100 ml - Ø65 mm,
250 ml - Ø85 mm,
500 ml - Ø105 mm,
1000 ml - Ø130 mm
flask (for UP-168)



TR-21/50

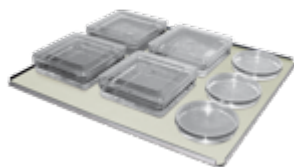
Adjustable angle test tube rack for up to 21 tubes 50 ml (for UP-168)



TR-44/15

Adjustable angle test tube rack for up to 44 tubes 15 ml (for UP-168)

ES-20/60, Orbital Shaker-Incubator



PP-400

Flat platform with non-slip silicone mat can accommodate various low profile containers (360x400 mm)