

Bioshaker BR-300LF/BR-300LF LED irradiation

Widely used for Cultivation of microbes such as Yeast, E.Coli. etc. that require temp. control. The power saving LED irradiation model and a model without compressor available.

Dimensions --> P.038 OD-Monitor Turbidimeter while shaking --> P.034 Double Shaker NR-150 --> P.066

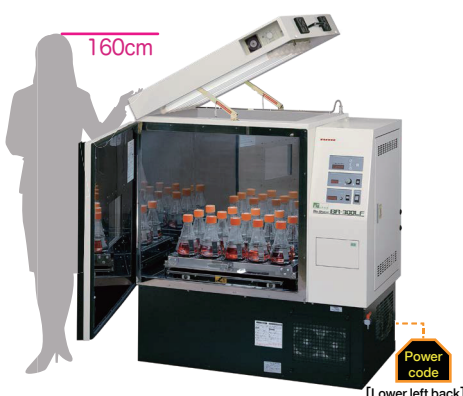
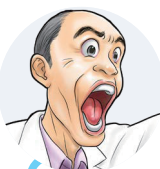


BR-300LF

BR-300LF LED irradiation

USER'S VOICE

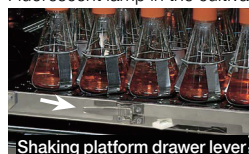
Newly adopted LED irradiation unit for
Power saving.



Power code
(Lower left back)

Providing a line up of incorporated LED irradiation unit.

Large Bioshakars are long seller by continued improvements such as Shaking platform drawer lever. Equipped with Switchable shaking motion and adjustment of shaking width in stepless between 10mm and 50mm. LED irradiation unit has been adopted to save power more than conventional one. It has been proved comparable to Fluorescent lamp in the cultivation of algae.



Shaking platform drawer lever



7x Straight tube LED

Equipped with the remote terminal for the temp. control.

Connecting with Program unit PU-5 (see the right page) enables the remote control setting and the program operation.



Features

- "Two models" with/without LED irradiation
- Capacity : Erlenmeyer flask 500mL x 15 pcs, 5L x 3 pcs
- Shaking width adjustable in stepless between 10mm to 50mm.

Applications

- Cultivation of microbes such as E.Coli. etc.
- Cultivation of Yeast, Psychrophile and Insect cell
- AGP/Algal Growth Potential (BR-300LF-LED irradiation)

Model	BR-300LF	BR-300LF-LED
Temperature range	4°C to 70°C	
Temp. control accuracy (*1)	±0.3°C to ±1.0°C	
Shaking motion/Speed range/Width	Switchable Reciprocal/Orbital shaking, 25 to 250r/min, 10 to 50mm (Stepless)	
Platform size/Capacity	600 x 400mm (Max. inside height: 575mm), Erlenmeyer flask 500mLx15, 5Lx3	
Light source/Irradiation capacity	-	7 x Straight tube LED, 8000 lux (*2), Stepless dimming
Irradiation time setting	-	24-hour timer setting method (Switchable ON/OFF per 15min)
Door type	Single swing door (Leftward open)	
Maximum load	Approx. 10kg (Platform not included)	
Ambient temp. range (*1)	5°C to 35°C	
Display (Temp./Speed)	Digital display (Switchable Set temp./Chamber temp.)	
Heating/Cooling method	Heater 700W/Compressor 125W	
Other functions	Shaking duration integrator (0.1h to 999.9h, Automatic resetting function *Required Program unit PU-5 or 6/Option to use), Chamber lamp	
Safety devices/functions	Leakage/Overcurrent breaker, Compressor overheating cut-off circuit, Abnormal sample temp. protection, High/Low temp., Display of deviation from set value (upper / lower limit), Self-diagnosis function for temperature sensor error,	
Dimensions (W x D x H)/Weight	1110 x 682 x 1120mm, Approx. 210kg	1110 x 682 x 1218mm, Approx. 230kg
Power supply	AC220 to 240V/11A	AC220 to 240V/12A
Standard accessories	1 x Universal shaking platform MT-6040E (*3), 4 x Vibration absorbing pad, 4 x Spacer, 1 x Drain-reception plastic bottle (With hose), 2 x Safety pin for the mounting stay (BR-300LF-LED), 1 x Light shielding plate (BR-300LF-LED)	

(*1)The temp. of defrost function that just starting is not included.


(*2)The value was measured at the position of 230mm from the center of platform. The value is 5500 lux at the position of 30mm from that.

(*3)Clamps not included.


•Temp. range and Temp. stability may not be meet the specs when frost by continuous operation. Required to defrost it regularly.

Optional accessories and Capacity/Qty of Vessels

Shaking platform and Capacity/Qty of Flasks

Model	MT-6040E			
	It is used together Clamps, Angle racks and "OD-Monitor" series (Clamps of Erlenmeyer flask and Sakaguchi flask available). It can hold flasks tightly than Spring shaking platform.			
External dimension / Weight	600x400x42Hmm, Apporx.4kg			
Capacity of Flask	Erlenmeyer flask 50mL	70	Erlenmeyer flask 2L	6
	Erlenmeyer flask 100mL	35	Erlenmeyer flask 3L	4
	Erlenmeyer flask 200mL	28	Erlenmeyer flask 5L/Disposable 3&5L	3
	Erlenmeyer flask 250mL	21	Sakaguchi flask 500mL	15
	Erlenmeyer flask 300mL	21	Sakaguchi flask 1L	9
	Erlenmeyer flask 500mL	15	Sakaguchi flask 2L	6
	Erlenmeyer flask 1L	9	Sakaguchi flask 3L	4



Spring net shaking platform and Capacity/Qty of Vessels (Mounted on MT-6040E for use)

Model	MR-4030L		
	The usable Shaking platform that Vessels can be easily mounted on regardless its shapes. Fixed with the screws to Platform MT-6040E for using. <u>Up to Two sets can be mounted.</u> (See Left figure.)		
Spring net Pitch	20mm		
Spring net stage	2 stage (Height is changeable.)		
External dimension / Weight	400x300x108Hmm, Apporx.2kg		
Capacity of Vessels (≈)	φ16 mm test tubes (*1)	96pcs (When Two sets mounted: $2 \times 96 = 192$ pcs).	
	Disposable Centrifuge tube for 50 mL (*1)	48pcs (When Two sets mounted: $2 \times 48 = 96$ pcs).	
	Erlenmeyer flask	50mL	24pcs (When Two sets mounted: $2 \times 24 = 48$ pcs).
		100mL	20pcs (When Two sets mounted: $2 \times 20 = 40$ pcs).
		200mL	12pcs (When Two sets mounted: $2 \times 12 = 24$ pcs).
		250mL	9pcs (When Two sets mounted: $2 \times 9 = 18$ pcs).
		300mL	9pcs (When Two sets mounted: $2 \times 9 = 18$ pcs).
		500mL	6pcs (When Two sets mounted: $2 \times 6 = 12$ pcs).
		1L	3pcs (When Two sets mounted: $2 \times 3 = 6$ pcs).
		2L	2pcs (When Two sets mounted: $2 \times 2 = 4$ pcs).
		3L	1pcs (When Two sets mounted: $2 \times 1 = 2$ pcs).
	Sakaguchi flask 500mL	6pcs (When Two sets mounted: $2 \times 6 = 12$ pcs).	



(*1)The qty when Angle rack tilted 45°. φ16mm or less test tube should fixed with the stand per net.
 (*2)The Capacity/Qty of vessels are less than those of Universal platform.

Program units

Connecting to the remote temperature setting terminal of BR-300LF series enables remote setting and program setting of temperature (The modification of BR is required for the shaking control).


	Model	PU-5
	Functions	Remote program control of Temperature.
	Model	PU-6
	Functions	Remote program control of Temperature and Shaking ON/OFF.
	Main Spec.	Storage programs: 2 program (8 segments per program) Time signal (ON/OFF): Each 2 programs

Clamps (Mounted on MT-6040E and AF-2070/2570 for use)

	Vessels / Capacity	Model
 Above 300mL Clamps comes with Spring and Above 500 mL comes with Octagonal rubber sheet.	50mL	CF-0050
	100mL	CF-0100
	200mL	CF-0200
	250mL	CF-0250
	300mL	CF-0300
	500mL	CF-0500
	1L	CF-1000
	2L	CF-2000
	3L	CF-3000
	5L	CF-5000
 Clamps for Sakaguchi flask and Sakaguchi flask	3&5L (*)	CF-3000DSP
	500mL	SF-0500
	1L	SF-1000
	2L	SF-2000
	3L	SF-3000


(*)For Disposable Erlenmeyer flasks (Corning 3L and Thomson 5L).

Angle rack for Test tubess (Mounted on MT-6040E for use)


 AT-1250	Model	AT-1250	AT-1620	AT-1650	AT-1820
	Capacity	φ12mm x50	φ16.5mm x20	φ16.5mm x50	φ18mm x20
	Mounting qty on MT-6040E	4 (*)	6 (*)	4 (*)	5 (*)
	External dimension (mm)	250x100x95H	285x70x80H	286x110x100H	320x70x80H
	Weight	Apporx.0.8kg	Apporx.0.6kg	Apporx.0.9kg	Apporx.0.7kg

(*)The qty when Angle rack with 160mm test tube tilted 45°.

Angle rack for Disposable Centrifuge tubess (Mounted on MT-6040E for use)

	Model	AT-3518
	Capacity	50mLx18
	Mounting qty on MT-6040E	4 (When Angle rack tilted 45 °)
	External dimension / Weight	285x110x102Hmm, Apporx.0.8kg
	Remarks	Be sure be used below 50°C.

Angle rack for Erlenmeyer flasks (Mounted on MT-6040E *Clamps required)

 AF-2070	Model	AF-2070	AF-2570
	Capacity	50mL:4, 100mL:3, 200 to 300mL:2, 500mL:1	50mL:5, 100mL:4, 200mL:3, 250 to 500mL:2
	Mounting qty on MT-6040E	4 (*1)	4 (*1)
	External dimension	250x110x50Hmm	300x110x50Hmm
	Weight	Apporx.0.8kg	Apporx.0.9kg

(*)The qty when Angle rack tilted 30°. *Clamps are available as an option.