

ZJ-BA

from the FACTORY

Ionizer
Bar Type
ZJ-BA

High-performance, High-speed Ionization over a Wide Area

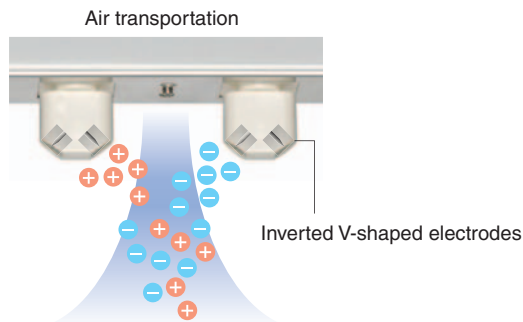
Three sensors enable automatically controlling the ion balance in realtime and maintain a constantly stable ion balance over a wide area.



Pursuing the Ultimate in Ion Balance and Discharge Time

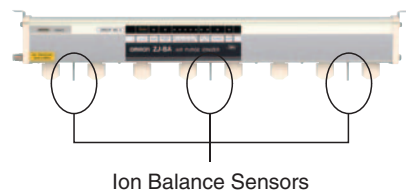
Dual-mixing Variable-DC Method

DC ionization is used for high ion generation over a wide area. To achieve advanced ion balance, the ZJ-BA Ionizer dischargers are positioned in an inverted V shape to mix positive and negative ions before transporting them by air.



Automatic Ion Balance

Ion balance sensors are located in the middle and at both ends. The built-in automatic ion balance function automatically controls the positive and negative ion balance. A flat ion balance is achieved over the entire length of the ionizer by the three sensors.



Our Highest Priority: Easy Onsite Operation

Dischargers Replaced in One Easy Step Easy Maintenance and Economical

A Discharger can be easily replaced when it is dirty or otherwise requires replacement.

Individual Dischargers can be replaced using pin connectors. Both easy maintenance and economy have been considered.



Only One Cable Even for Multiple Units Reduce Installation Time

The high-voltage power supply is built into the Unit, so only the Module Cable needs to be connected even when multiple Units are installed.



High Speed, High Performance

High Performance and Easy to Use

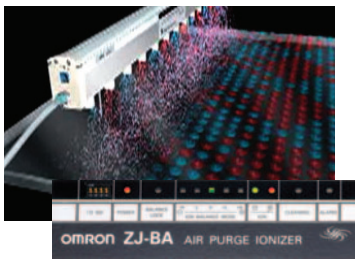
The ZJ-BA has an Ion Balance Mode for efficient, high-speed ionization and a remote control to make settings easily. No more time-consuming settings or handling. Optimal ionization has been achieved.

Three Ionization Modes to Match Any Workpiece

In addition to zero balance mode, the ion balance mode can be set to positive mode, which emits more positive ions or negative mode, which emits more negative ions.

If it is known that the workpiece often has a positive or negative electrostatic charge, faster discharge is possible by emitting many ions of the opposite polarity.

Zero balance mode



Positive mode



Negative mode



Simple Operation Settings Using Remote Control

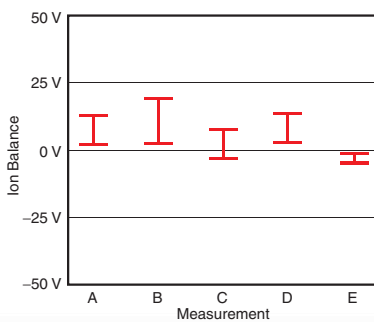
Once installed, the ZJ-BA Ionizer can be easily set up using a remote control.

ID numbers can be set to allow up to 16 ZJ-BA ionizers to be set using one remote control.

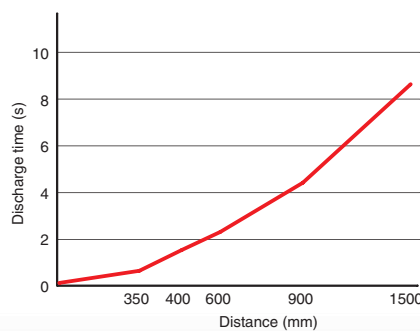


Engineering Data

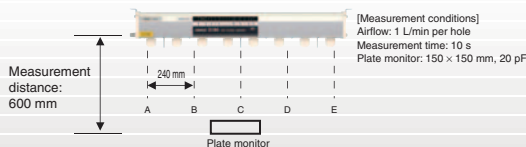
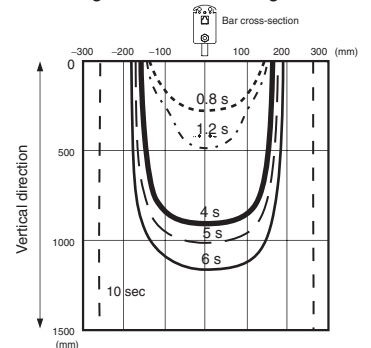
Ion Balance (Position Fluctuation Characteristics)



Installation Distance vs. Discharge Time



Discharge Area vs. Discharge time

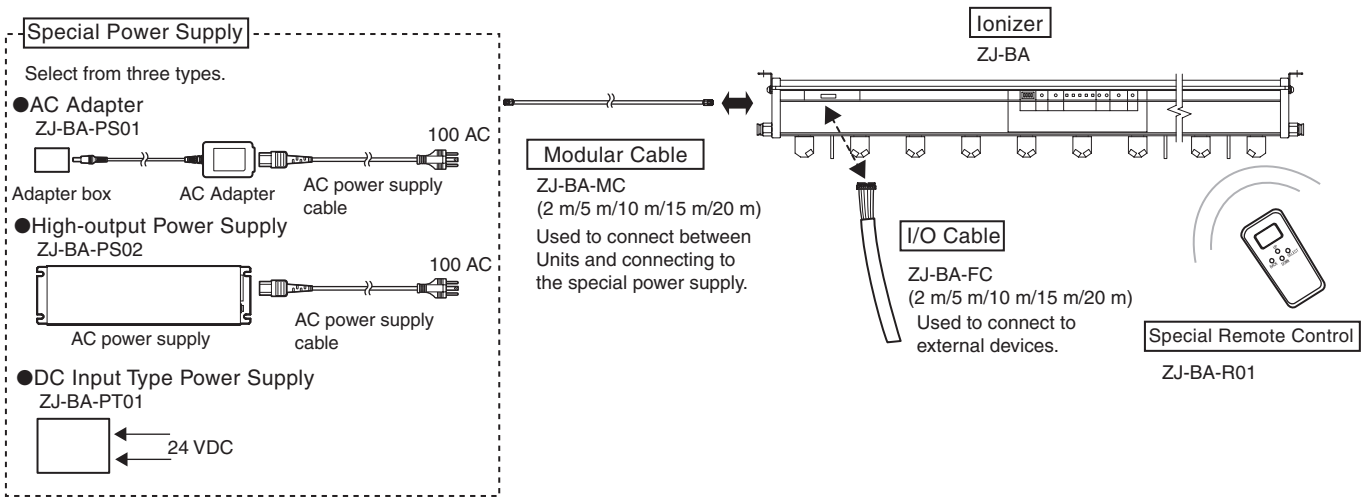


[Measurement conditions]
Airflow: 1 L/min per hole
Measurement time: 10 s
Plate monitor: 150 x 150 mm, 20 pF

[Measurement conditions]
Airflow: 1 L/min per hole
Discharge time: From +1,000 V to +100 V
Plate monitor positioned in center of unit
Plate monitor: 150 x 150 mm, 20 pF

Smart Function, Easy Operation

Product Configuration



The number of Units that can be connected depends on the type of power supply.

Ordering Information

Ionizers

Total length	Effective length	Model
490 mm	420 mm	ZJ-BA049
730 mm	660 mm	ZJ-BA073
970 mm	900 mm	ZJ-BA097
1210 mm	1140 mm	ZJ-BA121
1450 mm	1380 mm	ZJ-BA145
1690 mm	1620 mm	ZJ-BA169
1930 mm	1860 mm	ZJ-BA193
2170 mm	2100 mm	ZJ-BA217
2410 mm	2340 mm	ZJ-BA241
2650 mm	2580 mm	ZJ-BA265

Modular Cables

Cable length	Model
2 m	ZJ-BA-MC02
5 m	ZJ-BA-MC05
10 m	ZJ-BA-MC10
15 m	ZJ-BA-MC15
20 m	ZJ-BA-MC20

I/O Cables

Cable length	Model
2 m	ZJ-BA-FC02
5 m	ZJ-BA-FC05
10 m	ZJ-BA-FC10
15 m	ZJ-BA-FC15
20 m	ZJ-BA-FC20

Special Power Supplies

Product	Model
AC Adapter	ZJ-BA-PS01
High-output Power Supply	ZJ-BA-PS02
DC Input Type Power Supply	ZJ-BA-PT01

Special Remote Control

Model
ZJ-BA-R01

Discharger Modules

Specifications	Model
Single-pole, set of 2	ZJ9-BA-NT102
Double-pole, set of 2	ZJ9-BA-NT202

Replacement Dischargers

Specifications	Model
Set of 4	ZJ9-NDT04
Set of 8	ZJ9-NDT08

Cleaning Jigs

Specifications	Model
Set of 20	ZJ9-BA-CT01

Specifications

Special Power Supplies

Item	Model	ZJ-BA-PS01 (AC Adapter)	ZJ-BA-PS02 (High-output Power Supply)	ZJ-BA-PT01 (DC-input Power Supply)
Number of connectable units		2	8	2
Input voltage		100 VAC $\pm 10\%$		24 VDC $\pm 10\%$
Input current		0.5 A max. (with 2 Units connected)	1.5 A max. (with 8 Units connected)	1.0 A max. (with 2 Units connected)
Output voltage		12 VDC		
Product Configuration		Adapter Box AC Adapter AC Power Supply Cable Instruction sheet	Power Supply Unit AC Power Supply Cable Instruction sheet	Power Supply Unit Instruction sheet
Weight (not including packaging)		Adapter Box: Approx. 30 g AC Adapter: Approx. 130 g AC Power Supply Cable: Approx. 250 g	Power Supply Unit: Approx. 1300 g AC Power Supply Cable: Approx. 250 g	Power Supply Unit: Approx. 220 g

Special Remote Control

Item	Model	ZJ-BA-R01
Communications method		Wireless communications
Number of detectable Units		16
Power supply		Three AAA batteries
Weight (not including packaging)		Approx. 150 g
Accessories		Three batteries, instruction sheet

Specifications

Ionizers

Item	Model	ZJ-BA049	ZJ-BA073	ZJ-BA097	ZJ-BA121	ZJ-BA145	ZJ-BA169	ZJ-BA193	ZJ-BA217	ZJ-BA241	ZJ-BA265
Power supply voltage		12 VDC $\pm 10\%$ ripple (peak-to-peak) 10% or less									
Current consumption		600 mA max.									
Discharge method		Dual-mixing variable-DC method									
Discharge voltage		± 6.5 KV max.									
Discharger		Tungsten (See note 2.)									
Recommended installation distance		300 to 1500 mm									
Discharge time (See note 1.)		4.0 s max. (Zero balance mode)									
Ion balance (See note 1.)		± 30 V max. (Zero balance mode)									
Power supply connector		Modular type, 4-pin connector (at both ends of Unit)									
Air inlet		6-dia. one-touch coupling (at right end of Unit)					6-dia. one-touch coupling (at both ends of Unit)				
Airflow		1 L/min. per hole (standard), Note: Air pressure: 0.3 Mpa									
External I/O	Inputs	Power ON/OFF inputs, Note: Switch inputs (Current when ON: Approx. 9 mA)									
	Outputs	Cleaning output, alarm output, and power output. Note: Signal output by photo-MOS relay (24 VDC, 100 mA max.)									
Indications		Power supply, ion output, cleaning, alarm, ion balance mode, and balance lock									
Group number		Fixed to 0 in factory settings.									
ID number		0 to 15 (Set via 4-position DIP switch)									
Ion balance mode		Select from zero balance, positive high, positive low, negative high, and negative low.									
Ion balance fine tuning function		Yes									
Ambient temperature		Operating: 5 to 40°C, storage: 0 to 40°C (with no icing or condensation)									
Ambient humidity		Operating: 35% to 65%, storage: 35% to 85% (with no condensation)									
Weight (ionizer only)		Approx. 0.9 kg	Approx. 1.2 kg	Approx. 1.5 kg	Approx. 1.9 kg	Approx. 2.2 kg	Approx. 2.6 kg	Approx. 2.9 kg	Approx. 3.3 kg	Approx. 3.7 kg	Approx. 4.0 kg
Accessories		Ionizer, 2 mounting brackets (with M4 screws), 2 brackets, User's manual, English warning label			Ionizer, 2 mounting brackets (with M4 screws), 3 brackets, User's manual, English warning label			Ionizer, 2 mounting brackets (with M4 screws), 4 brackets, User's manual, English warning label			

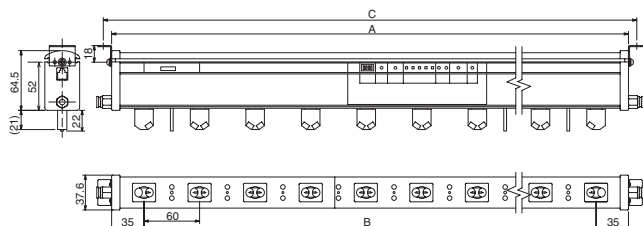
Note 1: Measurement conditions: Installation distance: 300 mm, Airflow: 1 L/min per hole, Measurement location: Center and left and right ends of effective length of Ionizer, Discharge time: Ion balance measurement time from 1,000 V to 100 V/-1,000 V to -100V: 10 s, Plate monitor: 150 x 150 20 pF
 2: Polysilicone Dischargers are also available. Contact your OMRON representative for details.

Dimensions

(Unit: mm)

Ionizers

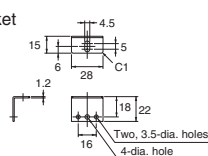
ZJ-BA



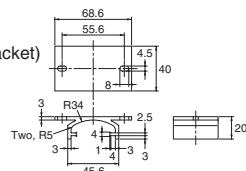
Note: The following table shows the differences in dimensions for each model.

Model	A (mm)	B (mm)	C (mm)	Number of needles	Number of Discharger Modules
ZJ-BA049	490	420	508	14	8
ZJ-BA073	730	660	748	22	12
ZJ-BA097	970	900	988	30	16
ZJ-BA121	1210	1140	1228	38	20
ZJ-BA145	1450	1380	1468	46	24
ZJ-BA169	1690	1620	1708	54	28
ZJ-BA193	1930	1860	1948	62	32
ZJ-BA217	2170	2100	2188	70	36
ZJ-BA241	2410	2340	2428	78	40
ZJ-BA265	2650	2580	2668	86	44

Mounting bracket

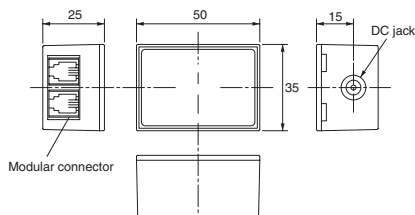


Bracket (Supplementary bracket)

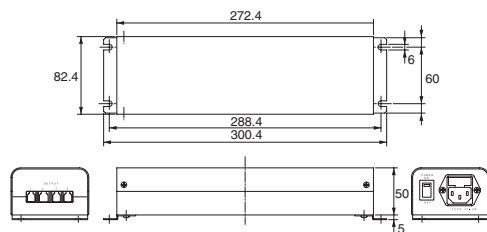


Special Power Supplies

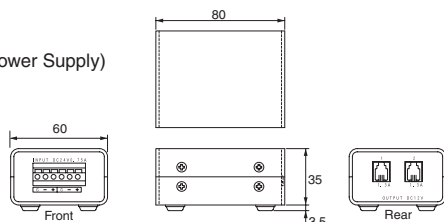
ZJ-BA-PS01 (AC Adapter/Adapter Box)



ZJ-BA-PS02 (High-output Power Supply)

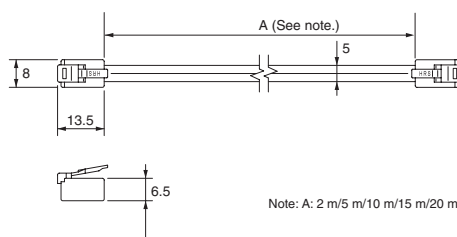


ZJ-BA-PT01 (DC-input Power Supply)



Modular Cables

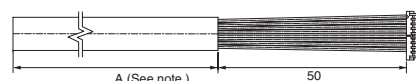
ZJ-BA-MC



Note: A: 2 m/5 m/10 m/15 m/20 m

I/O Cables

ZJ-BA-FC□□



Note: A: 2 m/5 m/10 m/15 m/20 m