



WINSTAT BF-2MA-LV

Ultra Low Ion-Balanced Ionizer

SSD New technology HDC-AC-LV performs ultra low ion-balancing below 1 volt without feedback from a sensor. Model BF-2MA-LV is our desktop type ionizer designed for stable ion performance over a longer period of time, compared to competition models.

FEATURES

- **Below ± 1 Volt ion balance control**
In clean room evaluations, the BF-2MA-LV maintains a reduced operating voltage of ± 1 volt and below without the need for maintenance up to one month.
- **Controllable Ion balance voltage**
Based on SSD HDC-AC-LV technology, the BF-2MA-LV includes controllable ion balance functionality
- **Safety Front Louver**
With detachable front louver, the BF-2MA-LV allows for easy maintenance. When the louver is OFF, all functionality will cease automatically, guaranteeing safety.
- **Seamless controllable air speed**
Air speed can easily be controlled for every applications.
- **Fan Alarm functionality**
If problems with fan functionality arise, a RED LED alarm displays
- **Pulse discharge Alarm function**
When abnormal discharge occurs, the BF-2MA-LV displays a RED LED alarm and an output signal sounds.
- **Over Current Alarm function**
If any over-current occurs, the BF-2MA-LV displays a RED LED alarm and output signal alarm sounds.



High Reliability

HDC-AC technology allows for longer maintenance cycle for ionizer emitter cleaning. (After 2500 hours stays stable)

Easy Maintenance

While maintenance is fairly low, the BF-2MA-LV includes a detachable front louver for easy access

Safety functions

Features “Pulse Discharge alarm”, “Over current alarm”, “Interlocked alarm (front louver off)”

Less Ozone

Maintains a low Ozone level below 0.003ppm.

FEATURES & SPECIFICATIONS

① Ultra Low Ion Balance performance

- Without a Sensor Feedback, keeps good ion-balance.
- (In Clean room test, keep below 1 volt for one month)
- Controllable Ion-balance functionality.

② High Reliability

- Long time stable ion performance with SSD HDC-AC.

③ Maintenance performance

- Maintenance period is longer than other Ionizers.

④ Safety Functions

- Abnormal alarm for high voltage output and fan issue
- Also includes audible alarm output signal.

⑤ Less Ozone

- Lowest Ozone level than any AC ionizers

⑥ Easy replace of emitter units

- No tools required for emitter point cleaning

⑦ Low EMI

- With low EMI, it's the ideal choice to work with Sensitive Electronic Devices

⑧ For Clean Rooms application

- With Material SUS304, it's rated for Clean Room use.

Model Name	BF-2MA-LV
Input Power	DC24V (Attached AC Adaptor available for AC100~240V)
Capacity	10VA
Output Voltage	$\pm 7500V_{0-p}$
Ion Balance	Below ± 1 Volt (Factory test) Ion Balance performance will be changed by Environment
Air Volume	1.2~3.2m ³ /min
Air Speed	1.8~3.8m/s (Distance: at 300mm center)
Ozone Level	Below 0.003ppm (Distance: at 6")
Available Environment	0~40°C / 15~85%RH (Without any condensations)
Output Signal	MOS FET relay non voltage contact output (Normally Closed) HV Alarm(P.D./O.C.) or Fan Abnormal alarm(Fan Lock)
Dimensions	150 × 170 × 75mm (5.90 × 6.70 × 2.95") (W × H × D)
Weight	Approximately 1500g; 3.3 lbs (with Bracket)
Materials	Main Body·Bracket·Knob Bolt: SUS304 Discharge Emitter: Tungsten (Titanium: Optional)
Accessories	Operation manual, AC Adaptor, Signal Cable, Cleaning Brush
Optional part	Tungsten Emitter Unit (DNU-W33) Titanium Emitter Unit (DNU-T33)

Decay Performance & Ion Balance (Reference data)

Decay Performance from $\pm 1000V$ to $\pm 100V$ () shows Negative Decay

Distance(mm)		300	600	900	1200
Decay time (Sec)	Maximum Air Speed	0.6(0.8)	1.2(1.6)	2.1(2.8)	3.2(4.6)
	Minimum Air Speed	1.3(1.6)	2.5(3.6)	4.6(7.0)	8.0(10.2)

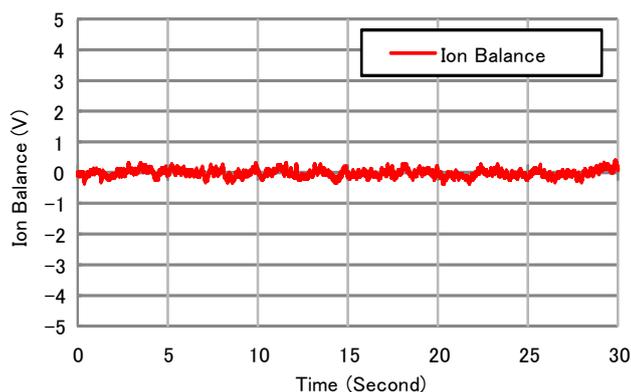
Decay Performance from $\pm 1000V$ to $\pm 10V$ () shows Negative Decay

Distance(mm)		300	600	900	1200
Decay time (Sec)	Maximum Air Speed	1.4(1.5)	2.4(3.2)	3.9(5.4)	6.0(8.4)
	Minimum Air Speed	2.4(3.1)	4.7(6.4)	8.4(11.6)	12.8(18.8)

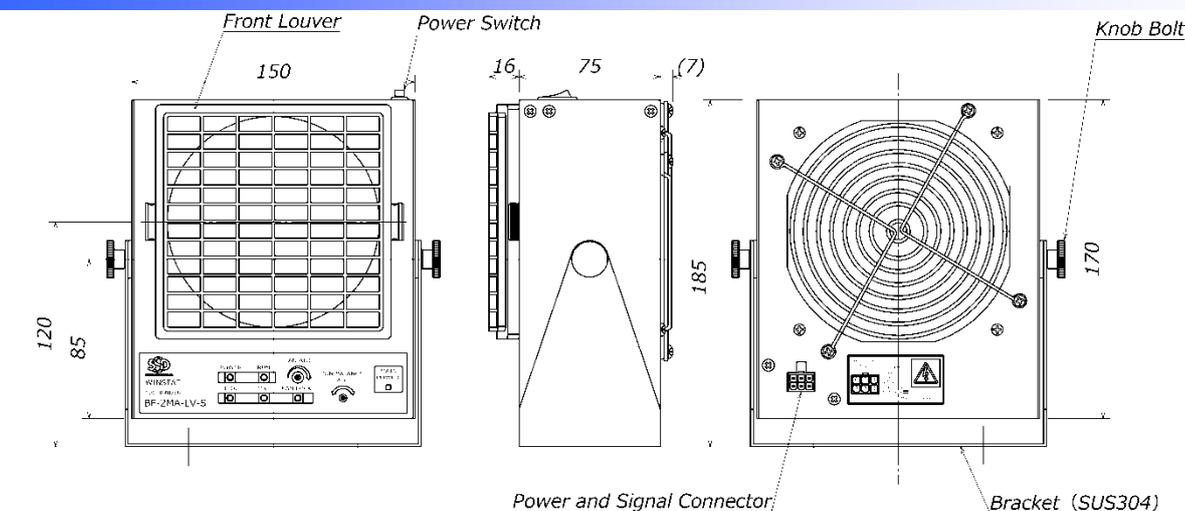
(*1): Tested by CPM with □150mm, 20pF plate

(*2): Decay time is from $\pm 1000V$ to ± 100 volts (Followed by IEC61340 standard)

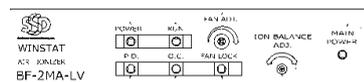
(*3): Above data is reference not guaranteed value.



OUTLOOK



RUN Indicator (GREEN) FAN ADJ. (Fan Speed Controller)
POWER Indicator (ON: GREEN) Main Power LED (ON: GREEN, OFF: RED)



P.D. (Pulse Discharge Alarm: RED)

ION BALANCE ADJ. (Ion Balance Controller)

O.C. (Over Current Alarm: RED)

FAN LOCK (Fan Lock Alarm: RED)

Front Panel Indicators

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