DONG IL TECHNOLOGY LTD.

ESD SOLUTION

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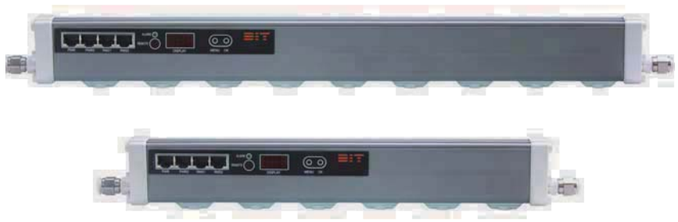
Contents

ASG-A Series



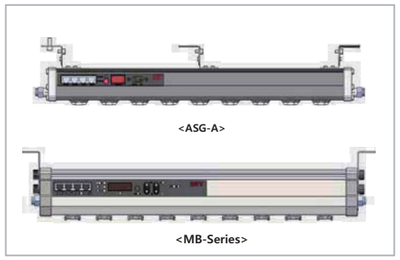
제품사양 / Product Specifications

Category		Specifications
입력 전압 (Input voltage)		DC 24V± 10%
입력 전류 (Input current)		MAX. 300mA
소모 전력 (Power consumption)		MAX. 7W
방전 전압 (Emitter voltage)		±4.75kV~±5.5kV (4level adjustable)
출력 주파수 (Output frequency)		0.1Hz ~ 60Hz (adjustable)
이온 발생 방식 (Ion generating method)		Corona discharge
전압 인가 방식 (Voltage application method)		Pulsed AC
재 질 (Material)		Body : ABS / Emitter Pins : Tungsten
방전핀 교체 (Emitter Replacement)		Replaceable
이온 밸런스 (Ion Balance)		Under average ±30V
제전 거리 (Coverage Distance)		200mm ~ 2000mm
공급 에어 (Air)	종 류 (Type)	CDA(Clean Dry Air), N2
	압 력 (Pressure)	0~0.5 Mpa (Usually under 0.3Mpa)
	유 량 (Flow) / Per 1 emitter	2L/min(±10%) [under 0.1Mpa]
	공급튜브 직경 (Air tube diameter)	6pi (Outside)
오존 발생량 (Ozone generation)		Under 0.005ppm
사용 온도 (Ambient temperature)		0℃ ~ +50℃ (32~122°F)
사용 습도 (Ambient humidity)		35~85%RH (No Condensation)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

제품장점 / Advantages

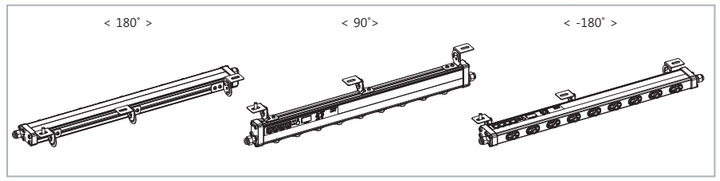
MB-Series 대비 단면적 40% 감소 Cross-sectional area reduced by 40%



✔MB-Series 대비 부피 및 중량이 현저히 감소하여 좁은 공간에서도 설치가 용이합니다.
Easy to install even in narrow space due to remarkably reduced size and weight.

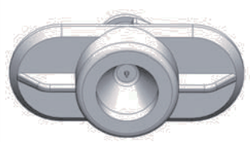
자유로운 설치 180-degree rotation

✔전용 브라켓 사용으로 설치가 더욱 자유로워 졌습니다. 기존 상하 조절 각도 120°에서 180°로 개선하여 보다 자유로운 설치가 가능해 졌습니다.
New brackets, which is able to tilt 180 degree vertically, provide more freedom in installation



Low-maintenance

ASG-A Nozzle



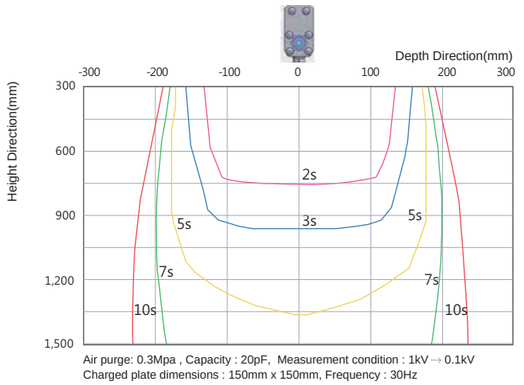
✔최적의 노즐 설계로 Air 소모량을 줄이면서 이물의 생성을 최소화 합니다.
Special nozzle is designed to reduce air supply requirement and minimize pollutant production and accumulation on emitter pin.

- 노즐의 Air 소모량을 줄이면서 방전핀 첨단부에 이물 부착을 최소화 할 수 있는 Aerodynamic 구조 설계.
  Special nozzle is designed using aerodymamics.

* 노즐당 Air 소모량
Air supply requirement (per emitter)
0.3Mpa ..... approx 5.1 ℓ/min
0.1Mpa ..... approx 2.0 ℓ/min

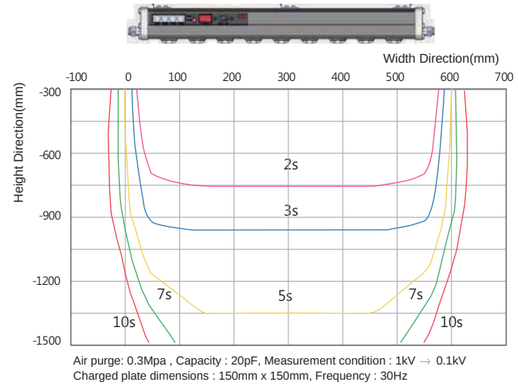
제품성능 / Product Performances

Relation between Depth Direction and Decay Time



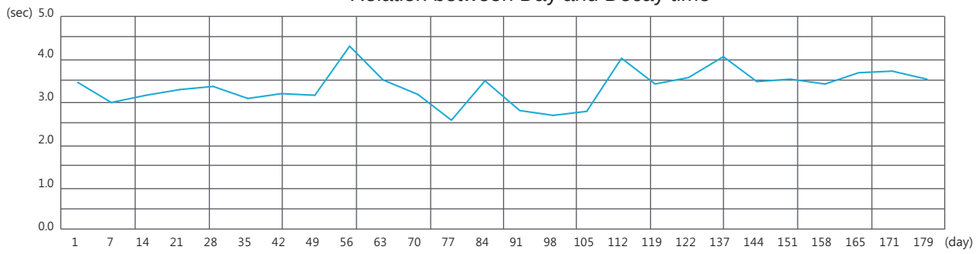
Air purge: 0.3Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Frequency : 30Hz

Relation between Width Direction and Decay Time



Air purge: 0.3Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Frequency : 30Hz

Relation between Day and Decay time



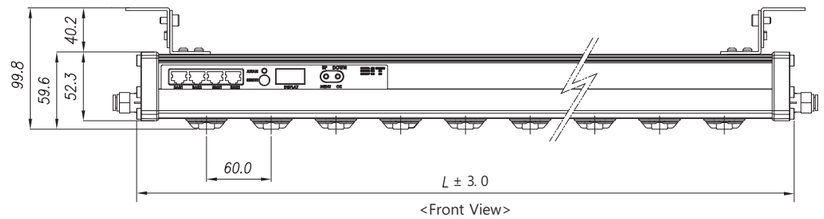
Air purge: 0.3Mpa , Capacity : 20pF, Frequency : 30Hz, Distance : 1000mm
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV→ 0.1kV

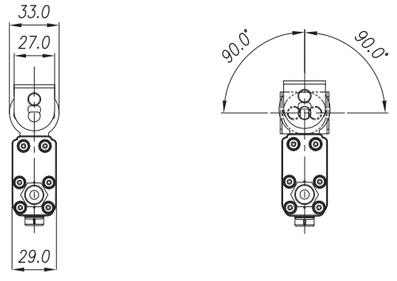
※ 상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

제품외관도 / Dimensions

(Unit : mm)

ASG-A





Main Model	Length
ASG - A050	502mm
ASG - A060	622mm
ASG - A070	682mm
ASG - A080	802mm
ASG - A090	922mm
ASG - A100	982mm
ASG - A110	1102mm
ASG - A130	1282mm
ASG - A160	1582mm
ASG - A190	1882mm
ASG - A210	2122mm
ASG - A230	2302mm
ASG - A250	2482mm
ASG - A300	2962mm

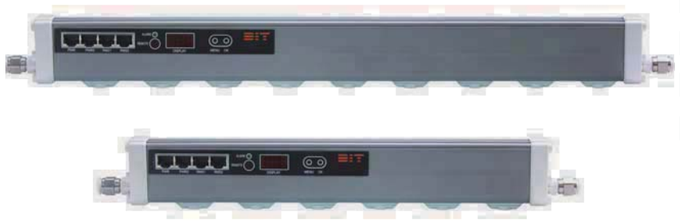
※ 상기 Length값은 Air-Fitting부 제외 길이 입니다.
Air-fitting part is not included in the length above

ASG-A Series의 길이는 최소 502mm 에서 최대 2962mm 까지 60mm 간격으로 길이 대응이 가능한 제품입니다.

Bar Length : Sizes available from min 502mm up to 2962mm at 60mm intervals.

※ 모든 부속물 별도 구매
All parts NOT included (Option : Bracket/Power cable)

ASG-P Series



제품사양 / Product Specifications

Category		Specifications
입력 전압 (Input voltage)		DC 24V± 10%
입력 전류 (Input current)		MAX. 900mA
소모 전력 (Power consumption)		Max. 22W
방전 전압 (Emitter voltage)		±4.7kV (±5%)
출력 주파수 (Output frequency)		29kHz
이온 발생 방식 (Ion generating method)		Corona discharge
전압 인가 방식 (Voltage application method)		High-Frequency AC
재 질 (Material)		Body : ABS / Emitter Pins : Tungsten
방전핀 교체 (Emitter replacement)		Replaceable
이온 밸런스 (Ion balance)		Under average ±30V
제전 거리 (Coverage distance)		100mm ~ 1000mm
공급 에어 (Air)	종 류 (Type)	CDA(Clean Dry Air), N2
	압 력 (Pressure)	0 ~ 0.5 Mpa (Usually under 0.3Mpa)
	유 량 (Flow) / Per 1 emitter	2L/min(±10%) [under 0.1Mpa]
	공급튜브 직경 (Air tube diameter)	6pi (Outside)
오존 발생량 (Ozone generation)		Under 0.05ppm
사용 온도 (Ambient temperature)		0℃ ~ +50℃ (32~122°F)
사용 습도 (Ambient humidity)		35~85%RH (No condensation)

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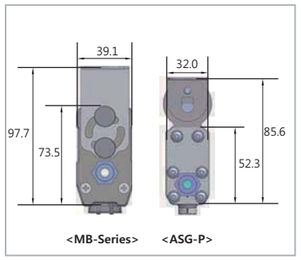
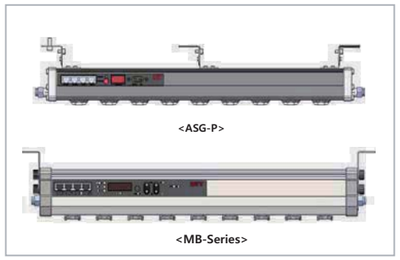
제품장점 / Advantages

MB-Series 대비 단면적 40% 감소 Cross-sectional area reduced by 40%





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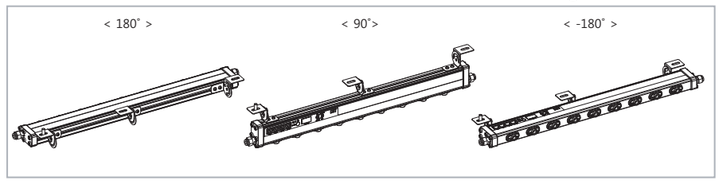
Easy to install even in narrow space due to remarkably reduced size and weight.

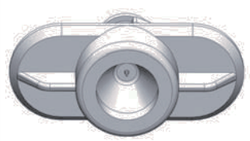
자유로운 설치 180-degree rotation

✔전용 브라켓 사용으로 설치가 더욱 자유로워 졌습니다. 기존 상하 조절 각도 120°에서 180°로 개선하여 보다 자유로운 설치가 가능해 졌습니다.
New brackets, which is able to tilt 180 degree vertically, provide more freedom in installation



Low-maintenance

ASG-P Nozzle



✔최적의 노즐 설계로 Air 소모량을 줄이면서 이물의 생성을 최소화 합니다.
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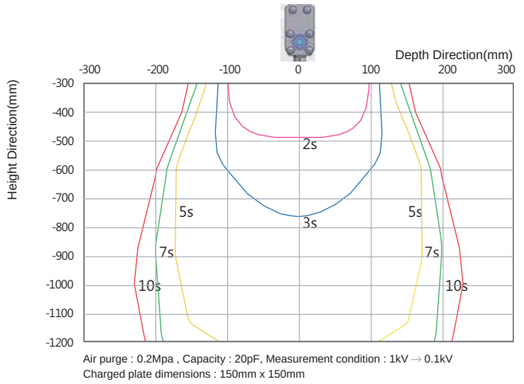
- 노즐의 Air 소모량을 줄이면서 방전핀 첨단부에 이물 부착을 최소화 할 수 있는 Aerodynamic 구조 설계.
  Special nozzle is designed using aerodymamics.

* 노즐당 Air 소모량
Air supply requirement (per emitter)
0.3Mpa ..... approx 5.1 ℓ/min
0.1Mpa ..... approx 2.0 ℓ/min

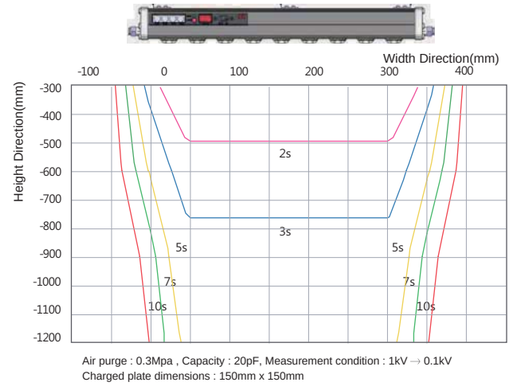
제품성능 / Product Performances

Relation between Depth Direction and Decay Time



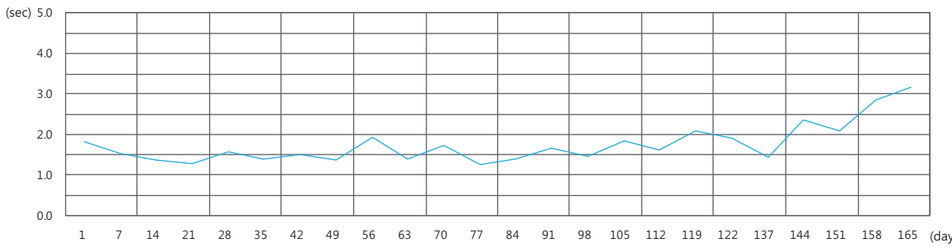
Air purge : 0.2Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm

Relation between Width Direction and Decay Time



Air purge : 0.3Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm

Relation between Day and Decay time



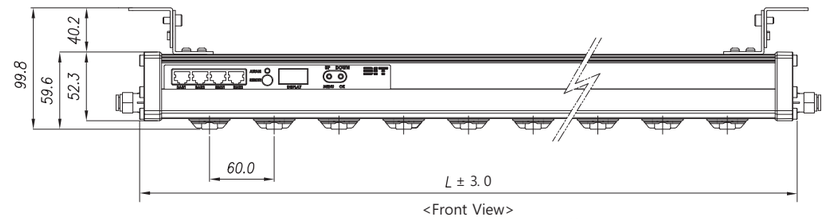
Air purge : 0.3Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Distance : 300mm

※ 상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

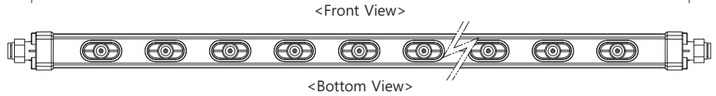
제품외관도 / Dimensions

(Unit : mm)

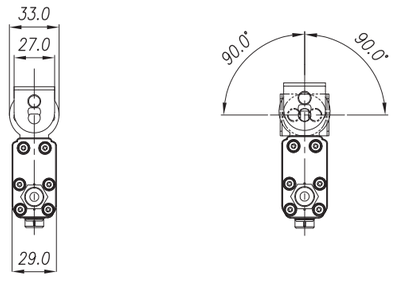
ASG-P



<Front View>



<Bottom View>



<Side View> <Bracket Rotation>

Main Model	Length
ASG - P040	382mm
ASG - P050	502mm
ASG - P060	622mm
ASG - P070	682mm
ASG - P080	802mm
ASG - P090	922mm
ASG - P100	982mm
ASG - P110	1102mm
ASG - P130	1282mm
ASG - P160	1582mm
ASG - P190	1882mm
ASG - P210	2122mm
ASG - P250	2482mm
ASG - P295	2962mm

※ 상기 Length값은 Air-Fitting부 제외 길이 입니다.
Air-fitting part is not included in the length above

ASG-P Series의 길이는 최소 382mm 에서 최대 2962mm 까지 60mm 간격으로 길이 대응이 가능한 제품입니다.

Bar Length : Sizes available from min 382mm up to 2962mm at 60mm intervals.

※ 모든 부속물 별도 구매
All parts NOT included (Option : Bracket/Power cable)

ASG-PG Series

제품사양 / Product Specifications

Category		Specifications
입력 전압 (Input voltage)		DC 24V± 10%
입력 전류 (Input current)		MAX. 900mA
소모 전력 (Power consumption)		Max. 22W
방전 전압 (Emitter voltage)		±4.7kV (±5%)
출력 주파수 (Output frequency)		29kHz
이온 발생 방식 (Ion generating method)		Corona discharge
전압 인가 방식 (Voltage application method)		High-Frequency AC
재 질 (Material)		Body : ABS / Emitter Pins : Tungsten
방전핀 교체 (Emitter replacement)		Replaceable
이온 밸런스 (Ion balance)		Under average ±30V
제전 거리 (Coverage distance)		100mm ~ 1000mm
공급 에어 (Air)	종 류 (Type)	CDA(Clean Dry Air), N2
	압 력 (Pressure)	0 ~ 0.5 Mpa (Usually under 0.3Mpa)
	유 량 (Flow) / Per 1 emitter	2L/min(±10%) [under 0.1Mpa]
	공급튜브 직경 (Air tube diameter)	6pi (Outside)
오존 발생량 (Ozone generation)		Under 0.05ppm
사용 온도 (Ambient temperature)		0℃ ~ +50℃ (32~122°F)
사용 습도 (Ambient humidity)		35~85%RH (No condensation)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
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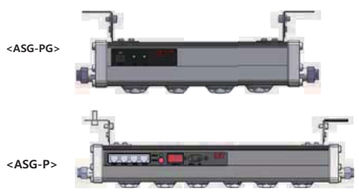
✔MB-Series 대비 부피 및 중량이 현저히 감소하여 좁은 공간에서도 설치가 용이합니다.
Easy to install even in narrow space due to remarkably reduced size and weight.

ASG-P Series보다 짧은 길이 가능 / ASG-PG can be shorter than ASG-P



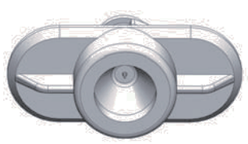
ASG-P Series에서 Display부를 제거 함으로써 262mm, 322mm 제작이 가능합니다.
The size of ASG-PG Series is available 262mm, 322mm by removing the FND display of ASG-P Series.

[ASG-P Series의 경우, 최소 382mm부터 제작 가능]
The size of ASG-P Series is available from min 382mm.

※ 단, RS485 통신 기능 없음.
RS485 communication function is not available.

Low-maintenance

ASG-PG Nozzle



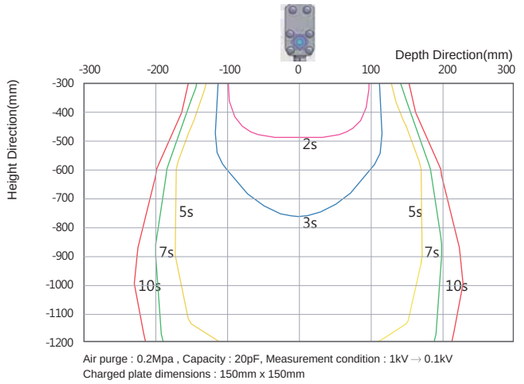
✔최적의 노즐 설계로 Air 소모량을 줄이면서 이물의 생성을 최소화 합니다.
Special nozzle is designed to reduce air supply requirement and minimize pollutant production and accumulation on emitter pin.

➧ 노즐의 Air 소모량을 줄이면서 방전핀 첨단부에 이물 부착을 최소화 할 수 있는 Aerodynamic 구조 설계.
Special nozzle is designed using aerodymamics.

* 노즐당 Air 소모량
Air supply requirement (per emitter)
0.3Mpa ..... approx 5.1 ℓ/min
0.1Mpa ..... approx 2.0 ℓ/min

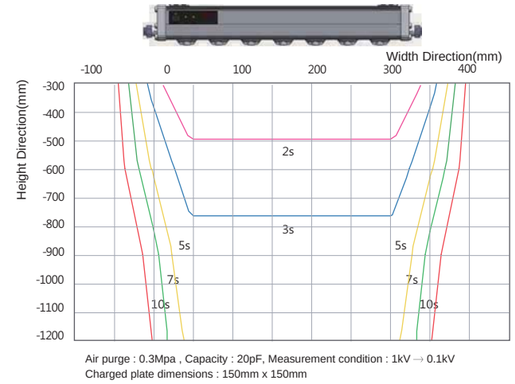
제품성능 / Product Performances

Relation between Depth Direction and Decay Time



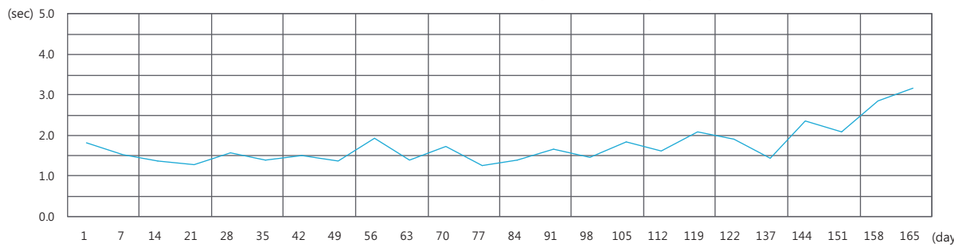
Air purge : 0.2Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm

Relation between Width Direction and Decay Time



Air purge : 0.3Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm

Relation between Day and Decay time



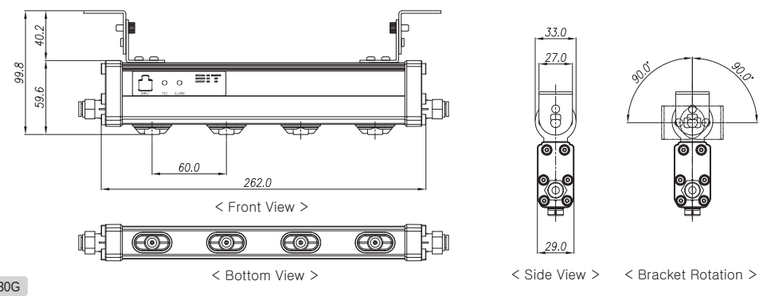
Air purge : 0.3Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Distance : 300mm

※ 상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

제품외관도 / Dimensions

(Unit : mm)

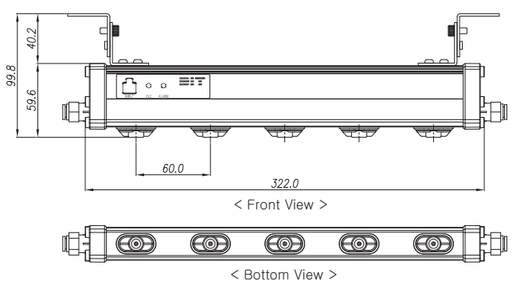
ASG-P025G



Main Model	Length
ASG - P025G	262mm
ASG - P030G	322mm

※ 상기 Length값은 Air-Fitting부 제외 길이 입니다.
Air-fitting part is not included in the length above

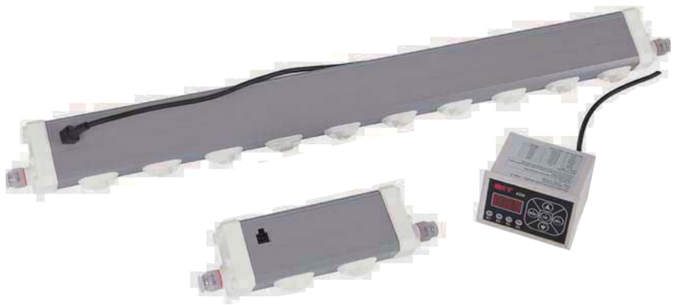
ASG-P030G



ASG-PG Series의 길이는 262mm, 322mm 두 사이즈 제품입니다.
Bar Length : Sizes available 262mm, 322mm

※ 모든 부속물 별도 구매
All parts NOT included (Option : Bracket/Power cable)

ASM-A Series



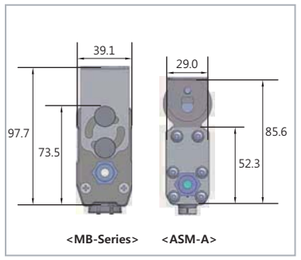
제품사양 / Product Specifications

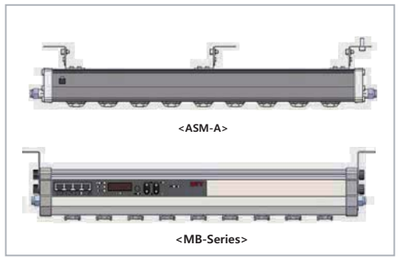
Category		Specifications
입력 전압 (Input voltage)		DC 24V± 10%
입력 전류 (Input current)		MAX. 300mA (Controller & Ionizer 1ea) MAX. 1A (Controller & Ionizer 4ea)
소모 전력 (Power consumption)		MAX. 7W (Controller & Ionizer 1ea) MAX. 24W (Controller & Ionizer 4ea)
방전 전압 (Emitter voltage)		±5.5kV
출력 주파수 (Output frequency)		1.0Hz~60Hz (adjustable)
이온 발생 방식 (Ion generating method)		Corona discharge
전압 인가 방식 (Voltage application method)		Pulsed AC
재 질 (Material)		Body : ABS / Emitter Pins : Tungsten
방전핀 교체 (Emitter replacement)		Replaceable
이온 밸런스 (Ion balance)		Under average ±30V
제전 거리 (Coverage distance)		200mm ~ 2000mm
공급 에어 (Air)	종 류 (Type)	CDA(Clean Dry Air), N2
	압 력 (Pressure)	0 ~ 0.5 Mpa (Usually under 0.3Mpa)
	유 량 (Flow) / Per 1 emitter	2L/min(±10%) [under 0.1Mpa]
	공급튜브 직경 (Air tube diameter)	6pi (Outside)
오존 발생량 (Ozone generation)		Under 0.005ppm
사용 온도 (Ambient temperature)		0℃ ~ +50℃ (32~122℉)
사용 습도 (Ambient humidity)		35~85%RH (No Condensation)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance

제품장점 / Advantages

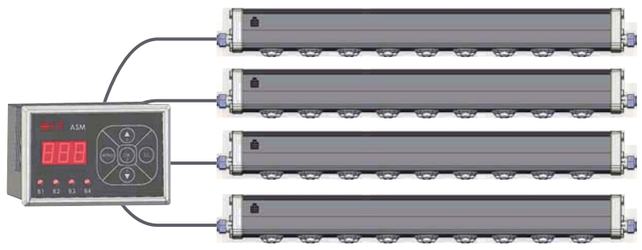
MB-Series 대비 단면적 40% 감소 Cross-sectional area reduced by 40%





✔MB-Series 대비 부피 및 중량이 현저히 감소하여 좁은 공간에서도 설치가 용이합니다.
Easy to install even in narrow space due to remarkably reduced size and weight.

컨트롤러 분리형 Controller separated type

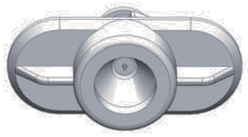


✔컨트롤러 분리형으로 장비 외부패널에 장착(계장)가능
장비/설비의 Control-Panel부에 제전기 컨트롤러를 설치하여, 설치된 BAR에 대한 각종 Setting 및 Alarm발생여부를 손쉽게 변경 및 확인할 수 있습니다.
Separated controller can be installed on exterior of equipments.
Easy to set and monitor the bar status with the separated controller installed around the control-panel of equipments

✔컨트롤러 1대에 최대 4Set까지 연결이 가능합니다.
Able to connect up to 4 bars per 1 controller

Low-maintenance

ASM-A Nozzle



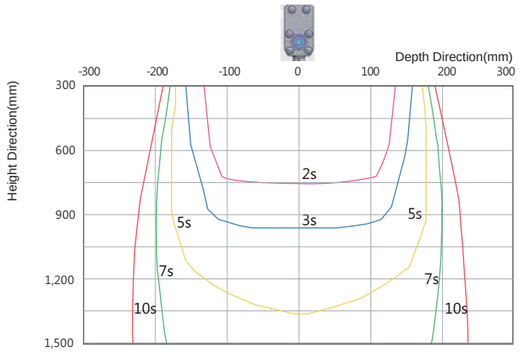
✔최적의 노즐 설계로 Air 소모량을 줄이면서 이물의 생성을 최소화 합니다.
Special nozzle is designed to reduce air supply requirement and minimize pollutant production and accumulation on emitter pin.

➷ 노즐의 Air 소모량을 줄이면서 방전핀 첨단부에 이물 부착을 최소화 할 수 있는 Aerodynamic 구조 설계.
Special nozzle is designed using aerodymamics.

* 노즐당 Air 소모량
Air supply requirement (per emitter)
0.3Mpa ..... approx 5.1 ℓ/min
0.1Mpa ..... approx 2.0 ℓ/min

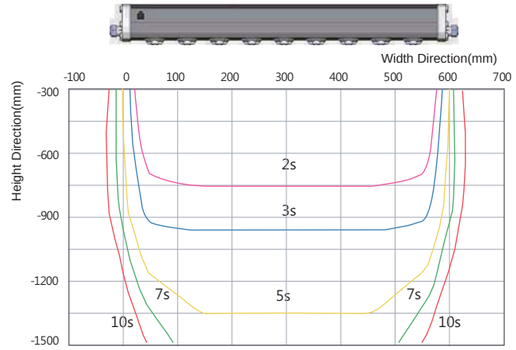
제품성능 / Product Performances

Relation between Depth Direction and Decay Time



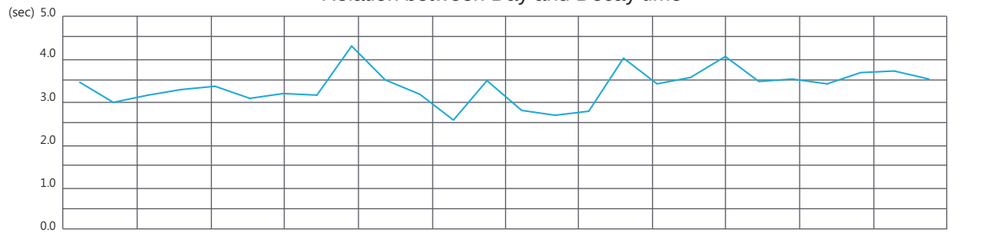
Air purge: 0.3Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Frequency : 30Hz

Relation between Width Direction and Decay Time



Air purge: 0.3Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Frequency : 30Hz

Relation between Day and Decay time



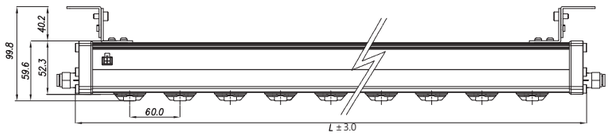
Air purge: 0.3Mpa , Capacity : 20pF, Frequency : 30Hz, Distance : 1000mm
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV → 0.1kV

※ 상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

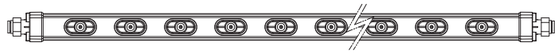
제품외관도 / Dimensions

(Unit : mm)

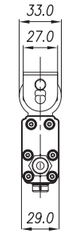
ASM-A



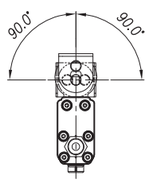
<Front View>



<Bottom View>



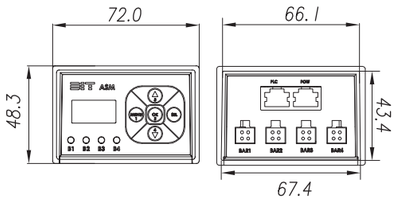
<Side View>



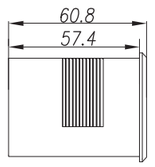
<Bracket Rotation>

Main Model	Length
ASM - A030	322mm
ASM - A040	382mm
ASM - A050	502mm
ASM - A060	622mm
ASM - A070	682mm
ASM - A080	802mm
ASM - A090	922mm
ASM - A110	1102mm
ASM - A130	1282mm
ASM - A160	1582mm
ASM - A190	1882mm
ASM - A210	2122mm
ASM - A230	2302mm
ASM - A250	2482mm
ASM - A295	2962mm

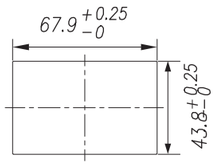
※ 상기 Length값은 Air-Fitting부 제외 길이 입니다.
Air-fitting part is not included in the length above



<Controller Front View> <Controller Rear View>



<Controller Side View>



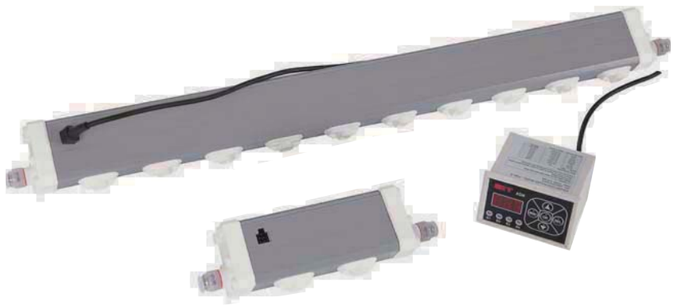
<Panel Cutout Size>

ASM-A Series의 길이는 최소 322mm 에서 최대 2962mm 까지 60mm 간격으로 길이 대응이 가능한 제품입니다.

Bar Length : Sizes available from min 322mm up to 2962mm at 60mm intervals.

※ 모든 부속물 별도 구매
All parts NOT included (Option : Bracket/Power cable/Outer Controller etc)

ASM-P Series



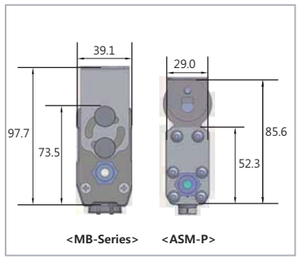
제품사양 / Product Specifications

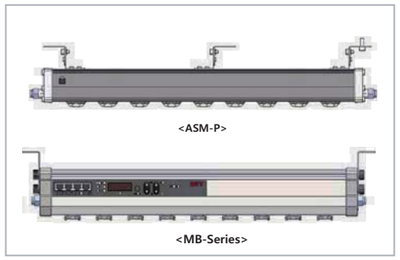
Category		Specifications
입력 전압 (Input voltage)		DC 24V± 10%
입력 전류 (Input current)		MAX. 900mA (Controller & Ionizer 1ea) MAX. 3A (Controller & Ionizer 4ea)
소모 전력 (Power consumption)		MAX. 22W (Controller & Ionizer 1ea) MAX. 72W (Controller & Ionizer 4ea)
방전 전압 (Emitter voltage)		±4.7kV(±5%)
출력 주파수 (Output frequency)		29kHz
이온 발생 방식 (Ion generating method)		Corona discharge
전압 인가 방식 (Voltage application method)		High-Frequency AC
재 질 (Material)		Body : ABS / Emitter Pins : Tungsten
방전핀 교체 (Emitter replacement)		Replaceable
이온 밸런스 (Ion balance)		Under average ±30V
제전 거리 (Coverage distance)		100mm ~ 1000mm
공급 에어 (Air)	종 류 (Type)	CDA(Clean Dry Air), N2
	압 력 (Pressure)	0~0.5 Mpa (Usually under 0.3Mpa)
	유 량 (Flow) / Per 1 emitter	2L/min(±10%) [under 0.1Mpa]
	공급튜브 직경 (Air tube diameter)	6pi (Outside)
오존 발생량 (Ozone generation)		Under 0.05ppm
사용 온도 (Ambient temperature)		0℃ ~ +50℃ (32~122℉)
사용 습도 (Ambient humidity)		35~85%RH (No condensation)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance

제품장점 / Advantages

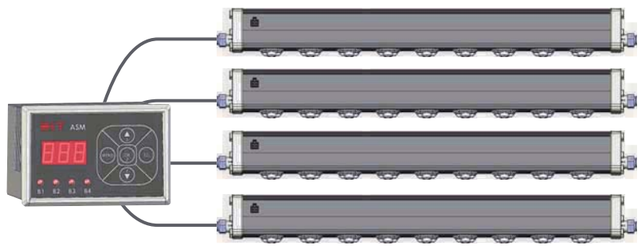
MB-Series 대비 단면적 40% 감소 Cross-sectional area reduced by 40%





✔MB-Series 대비 부피 및 중량이 현저히 감소하여 좁은 공간에서도 설치가 용이합니다.
Easy to install even in narrow space due to remarkably reduced size and weight.

컨트롤러 분리형 Controller separated type

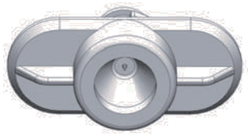


✔컨트롤러 분리형으로 장비 외부패널에 장착(계장)가능
장비/설비의 Control-Panel부에 제전기 컨트롤러를 설치하여, 설치된 BAR에 대한 각종 Setting 및 Alarm발생여부를 손쉽게 변경 및 확인할 수 있습니다.
Separated controller can be installed on exterior of equipments.
Easy to set and monitor the bar status with the separated controller installed around the control-panel of equipments

✔컨트롤러 1대에 최대 4Set까지 연결이 가능합니다.
Able to connect up to 4 bars per 1 controller

Low-maintenance

ASM-P Nozzle



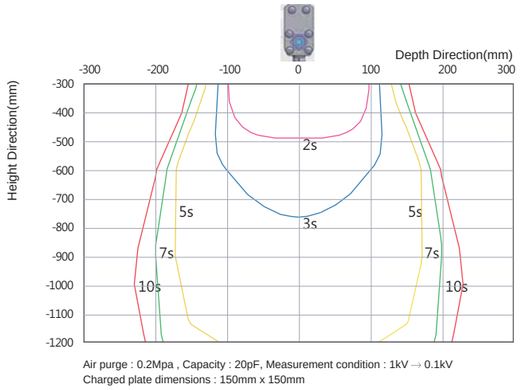
✔최적의 노즐 설계로 Air 소모량을 줄이면서 이물의 생성을 최소화 합니다.
Special nozzle is designed to reduce air supply requirement and minimize pollutant production and accumulation on emitter pin.

➳ 노즐의 Air 소모량을 줄이면서 방전핀 첨단부에 이물 부착을 최소화 할 수 있는 Aerodynamic 구조 설계.
Special nozzle is designed using aerodymamics.

* 노즐당 Air 소모량
Air supply requirement (per emitter)
0.3Mpa ..... approx 5.1 ℓ/min
0.1Mpa ..... approx 2.0 ℓ/min

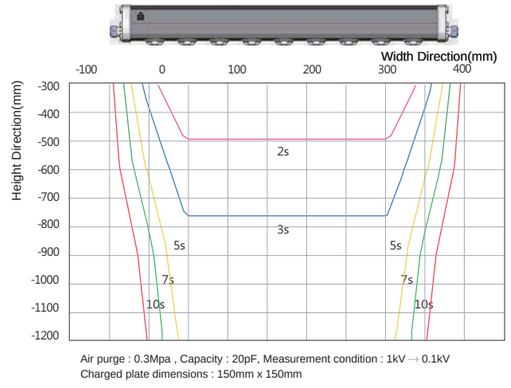
제품성능 / Product Performances

Relation between Depth Direction and Decay Time



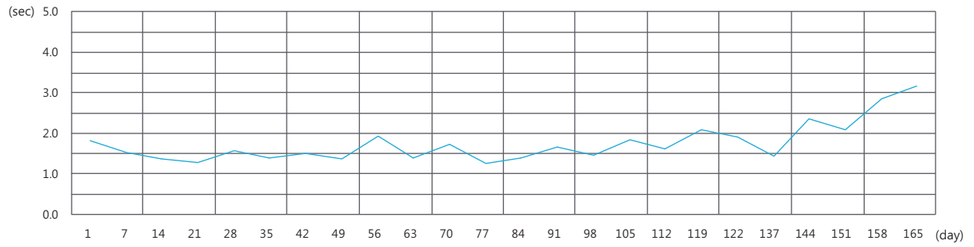
Air purge : 0.2Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm

Relation between Width Direction and Decay Time



Air purge : 0.3Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm

Relation between Day and Decay time



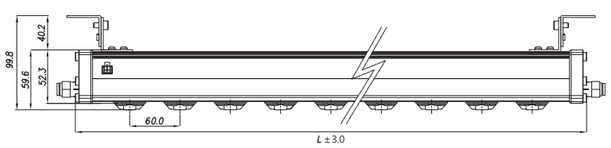
Air purge : 0.3Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Distance : 300mm

※ 상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

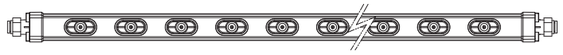
제품외관도 / Dimensions

(Unit : mm)

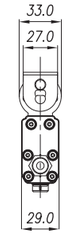
ASM-P



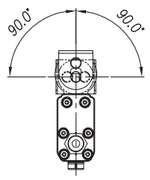
<Front View>



<Bottom View>



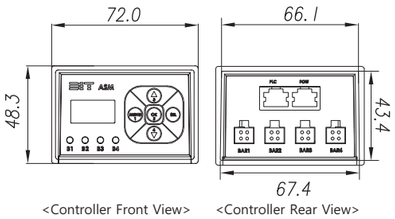
<Side View>



<Bracket Rotation>

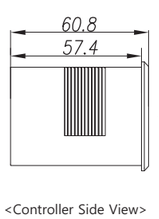
Main Model	Length
ASM - P020	202mm
ASM - P025	262mm
ASM - P030	322mm
ASM - P040	382mm
ASM - P050	502mm
ASM - P060	622mm
ASM - P070	682mm
ASM - P090	922mm
ASM - P110	1102mm
ASM - P130	1282mm
ASM - P150	1522mm
ASM - P180	1822mm
ASM - P210	2122mm
ASM - P250	2482mm
ASM - P295	2962mm

※ 상기 Length값은 Air-Fitting부 제외 길이 입니다.
Air-fitting part is not included in the length above

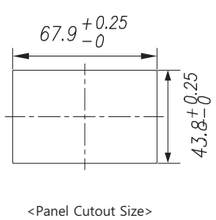


<Controller Front View>

<Controller Rear View>



<Controller Side View>



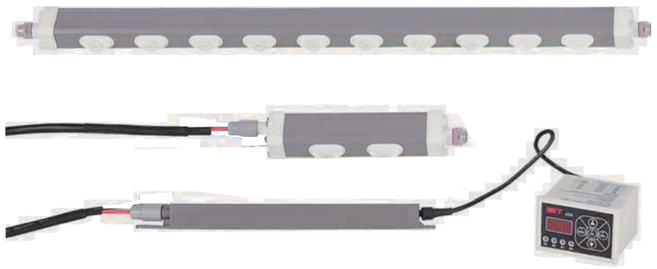
<Panel Cutout Size>

ASM-P Series의 길이는 최소 202mm 에서 최대 2962mm 까지 60mm 간격으로 길이 대응이 가능한 제품입니다.

Bar Length : Sizes available from min 202mm up to 2962mm at 60mm intervals.

※ 모든 부속물 별도 구매
All parts NOT included (Option : Bracket/Power cable/Outer Controller etc)

ASR-A Series



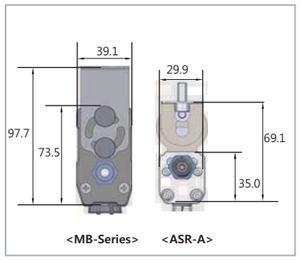
제품사양 / Product Specifications

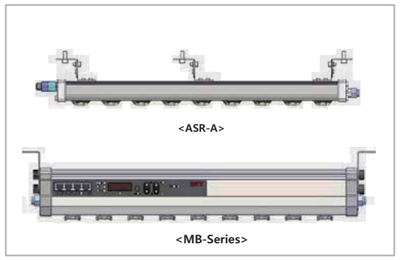
Category		Specifications
입력 전압 (Input voltage)		DC 24V± 10%
입력 전류 (Input current)		MAX. 300mA (Controller & Ionizer 1ea) MAX. 1A (Controller & Ionizer 4ea)
소모 전력 (Power consumption)		MAX. 7W (Controller & Ionizer 1ea) MAX. 24W (Controller & Ionizer 4ea)
방전 전압 (Emitter voltage)		±5.5kV
출력 주파수 (Output frequency)		1.0Hz ~ 60Hz (adjustable)
이온 발생 방식 (Ion generating method)		Corona discharge
전압 인가 방식 (Voltage application method)		Pulsed AC
재 질 (Material)		Body : ABS / Emitter Pins : Tungsten
방전핀 교체 (Emitter replacement)		Replaceable
이온 밸런스 (Ion balance)		Under average ±30V
제전 거리 (Coverage distance)		200mm ~ 2000mm
공급 에어 (Air)	종 류 (Type)	CDA(Clean Dry Air), N2
	압 력 (Pressure)	0~0.5 Mpa (Usually under 0.3Mpa)
	유 량 (Flow) / Per 1 emitter	2L/min(±10%) [under 0.1Mpa]
	공급튜브 직경 (Air tube diameter)	6pi (Outside)
오존 발생량 (Ozone generation)		Under 0.005ppm
사용 온도 (Ambient temperature)		0℃ ~ +50℃ (32~122℉)
사용 습도 (Ambient humidity)		35~85%RH (No condensation)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance

제품장점 / Advantages

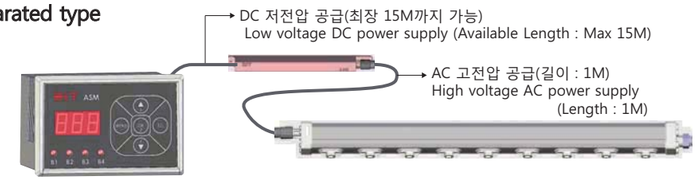
MB-Series 대비 단면적 70% 감소 Cross-sectional area reduced by 70%





✔MB-Series 대비 부피 및 중량이 현저히 감소하여 좁은 공간에서도 설치가 용이합니다.
Easy to install even in narrow space due to remarkably reduced size and weight.

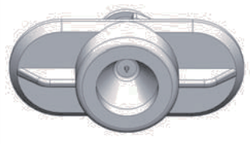
BAR / HVPS Power-Pack / Controller separated type



✔Bar에 내장되어 있던 Controller부와 HVPS부를 별도로 분리함으로써 Controller에서 Bar까지의 연결 가능거리를 증가시켜 설치의 자유도를 높였습니다.
Total connectable length is increased by separating the controller and the HVPS.
It gives more freedom in installation.
※ HVPS : High Voltage Power Supply.
✔컨트롤러 1대에 최대 4Set까지 연결이 가능합니다.
Able to connect up to 4 bars per 1 controller.

Low-maintenance

ASR-A Nozzle



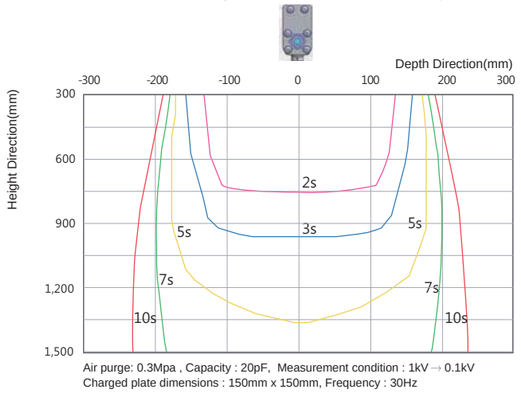
✔최적의 노즐 설계로 Air 소모량을 줄이면서 이물의 생성을 최소화 합니다.
Special nozzle is designed to reduce air supply requirement and minimize pollutant production and accumulation on emitter pin.

➳ 노즐의 Air 소모량을 줄이면서 방전핀 첨단부에 이물 부착을 최소화 할 수 있는 Aerodynamic 구조 설계.
Special nozzle is designed using aerodymamics.

* 노즐당 Air 소모량
Air supply requirement (per emitter)
0.3Mpa ..... approx 5.1 ℓ/min
0.1Mpa ..... approx 2.0 ℓ/min

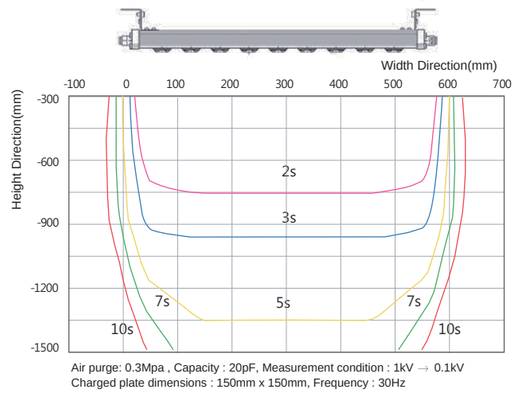
제품성능 / Product Performances

Relation between Depth Direction and Decay Time



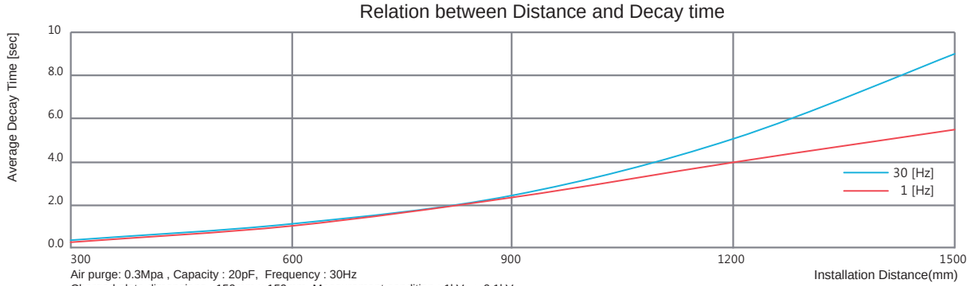
Air purge: 0.3Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Frequency : 30Hz

Relation between Width Direction and Decay Time



Air purge: 0.3Mpa , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Frequency : 30Hz

Relation between Distance and Decay time



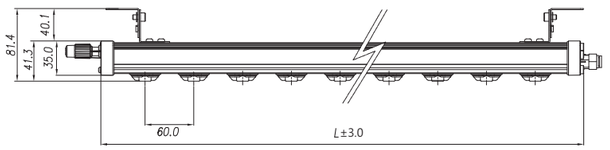
Air purge: 0.3Mpa , Capacity : 20pF, Frequency : 30Hz
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV → 0.1kV

※ 상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

제품외관도 / Dimensions

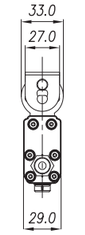
(Unit : mm)

ASR-A

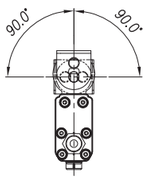


<Front View>

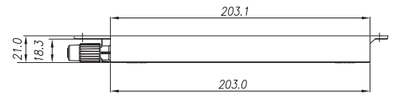
<Bottom View>



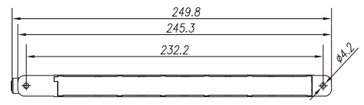
<Side View>



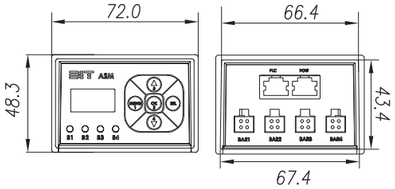
<Bracket Rotation>



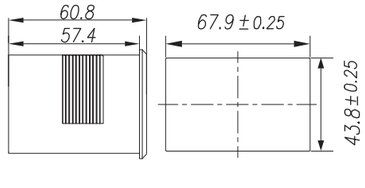
<HVPS Front View>



<HVPS Top View>



<Controller Front View> <Controller Rear View>



<Controller Side View> <Panel Cutout Size>

Main Model	Length
ASR - A020	202mm
ASR - A025	262mm
ASR - A030	322mm
ASR - A040	382mm
ASR - A050	502mm
ASR - A060	622mm
ASR - A070	682mm
ASR - A080	802mm
ASR - A110	1102mm
ASR - A130	1282mm
ASR - A160	1582mm
ASR - A190	1882mm
ASR - A230	2302mm
ASR - A260	2602mm
ASR - A295	2962mm

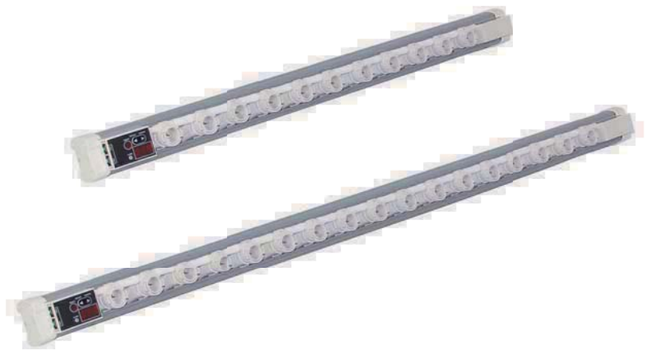
※ 상기 Length값은 Air-Fitting부 제외 길이 입니다.
Air-fitting part is not included in the length above

ASR-A Series의 길이는 최소 202mm 에서 최대 2962mm 까지 60mm 간격으로 길이 대응이 가능한 제품입니다.

Bar Length : Sizes available from min 202mm up to 2962mm at 60mm intervals.

※ 모든 부속물 별도 구매
All parts NOT included (Option : Bracket/Power cable/ Outer HVPS/Outer controller etc)

MB-L Series



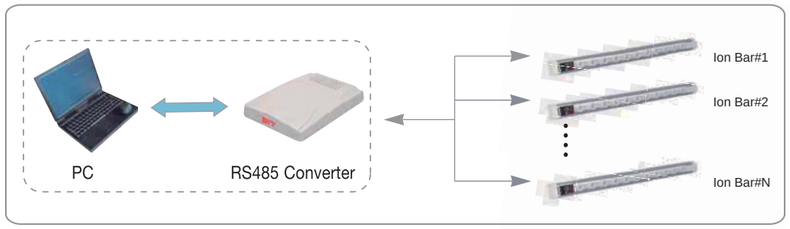
제품사양 / Product Specifications

Category	Specifications
입력 전압 (Input voltage)	DC 24V± 10%
입력 전류 (Input current)	MAX. 300mA
소모 전력 (Power consumption)	MAX. 7W
방전 전압 (Emitter voltage)	±6.5kV
출력 주파수 (Output frequency)	0.5Hz ~ 10Hz (adjustable)
이온 발생 방식 (Ion generating method)	Corona discharge
전압 인가 방식 (Voltage application method)	Pulsed AC
재 질 (Material)	Body : ABS / Emitter Pins : Titanium
방전핀 교체 (Emitter replacement)	Replaceable
이온 밸런스 (Ion balance)	Under average ±30V
제전 거리 (Coverage distance)	200mm ~ 1500mm
오존 발생량 (Ozone generation)	Under 0.005ppm
사용 온도 (Ambient temperature)	0℃ ~ +50℃ (32~122℉)
사용 습도 (Ambient humidity)	35~85%RH (No condensation)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

제품장점 / Advantages

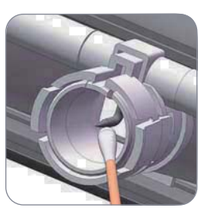
전원 및 통신(RS485)시리즈 연결 Connecting MB-L Series to power and RS-485



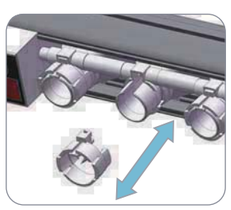
원격감시시스템(RMS)과의 연동
MB-L과 RS485 Converter를 연결
하여 외부 RMS와 연동이 가능합니다.
It is connectable to RMS
(Remote Monitoring System)
through RS-485.

초소형 고압 트랜스 내장형 (고압케이블 불필요).
Slim and Light-weight Piezo-ceramic transformer built into Ion bar
(No need for separate bulky transformer/control unit).

무선 리모트 컨트롤 기능(개별제전기 선택, 이온밸런스, 주파수 변경, 설정상태 확인).
Wireless Remote Control (Select individual Ion bar unit to
communicate, check ion balance, change frequency, and check current setting, etc).



간편한 관리 및 청소.
Easy Maintenance & Cleaning.

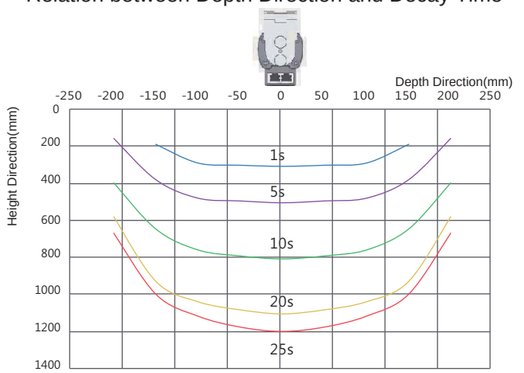


간편한 방전핀 교체
Convenient emitter pin for replacement.

이물 생성을 최소화한 구조.
Structured to minimize dusts or pollutans.

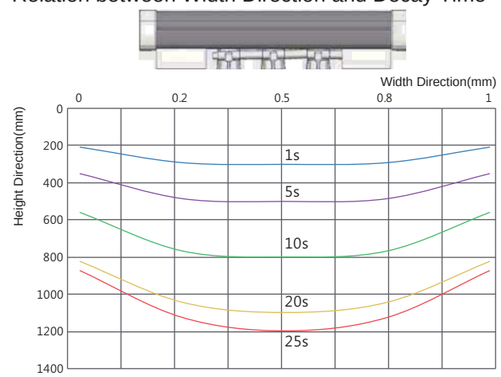
제품성능 / Product Performances

Relation between Depth Direction and Decay Time



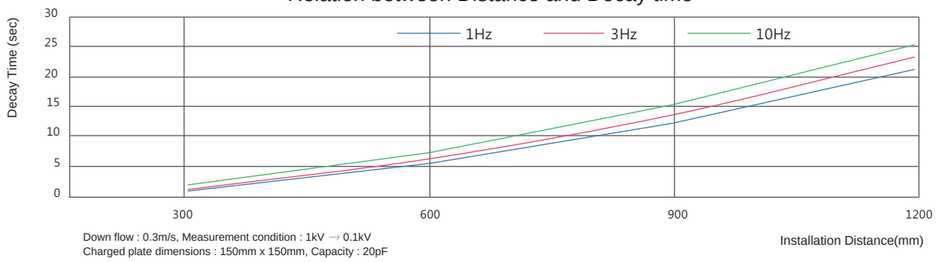
Down flow : 0.3m/s , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Frepuency : 30Hz

Relation between Width Direction and Decay Time



Down flow : 0.3M/s , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Frepuency : 30Hz

Relation between Distance and Decay time



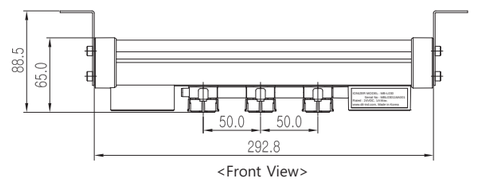
Down flow : 0.3m/s, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Capacity : 20pF

※ 상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

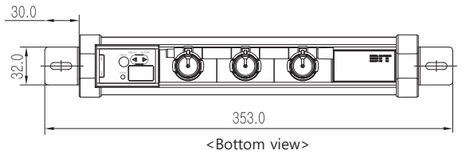
제품외관도 / Dimensions

(Unit : mm)

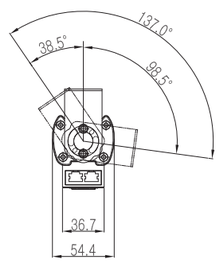
MB-L030



<Front View>



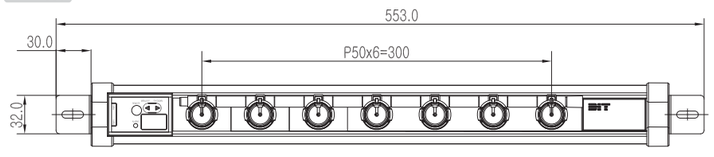
<Bottom view>



<Bracket rotation>

Main Model	Length
MB - L025	243mm
MB - L030	293mm
MB - L040	393mm
MB - L050	493mm
MB - L060	593mm
MB - L070	693mm
MB - L080	793mm
MB - L090	893mm
MB - L100	993mm
MB - L110	1093mm
MB - L120	1193mm
MB - L130	1293mm
MB - L140	1393mm
MB - L150	1493mm

MB-L050



<Bottom view>

MB-L Series의 길이는 최소 243mm 에서 최대 1493mm 가지 50mm 간격으로 길이 대응이 가능한 제품입니다.

Bar Length : Sizes available from min 243mm up to 1493mm at 50mm intervals.

※ 브라켓 및 전원 케이블(RJ45 A형) 포함
Bracket/Power cable(RJ45 A type) included

MB-LS Series

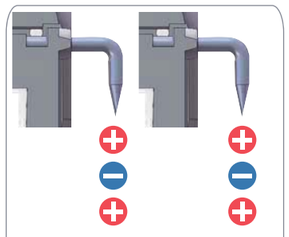
제품사양 / Product Specifications

Category	Specifications
입력 전압 (Input voltage)	DC 24V± 10%
입력 전류 (Input current)	MAX. 570mA
소모 전력 (Power consumption)	MAX. 14W
방전 전압 (Emitter voltage)	±6.5kV
출력 주파수 (Output frequency)	0.5Hz ~ 10Hz (adjustable)
이온 발생 방식 (Ion generating method)	Corona discharge
전압 인가 방식 (Voltage application method)	Pulsed AC
재 질 (Material)	Body : ABS / Emitter Pins : Titanium
방전핀 교체 (Emitter replacement)	Replaceable
이온 밸런스 (Ion balance)	Under average ±30V
제전 거리 (Coverage distance)	200mm ~ 600mm
오존 발생량 (Ozone generation)	Under 0.005ppm
사용 온도 (Ambient temperature)	0℃ ~ +50℃ (32~122°F)
사용 습도 (Ambient humidity)	35~85%RH (No condensation)

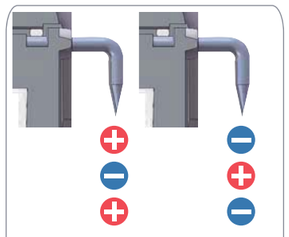
※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

제품장점 / Advantages

핀 교차 Pulsed AC 방식으로 근접거리 Low-Offset 성능 구현[특허 출원]
Pin-crossing type pulsed AC has low offset-voltage performance at a short distance. [Patented]



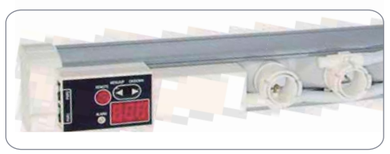
기존 Pulsed AC 방식
General Pulsed AC method



교차식 Pulsed AC 방식
Pin-Crossing type Pulsed AC

일반 Pulsed-AC의 근접거리에서의 Offset-Voltage 감소를 위하여, 핀 교차 형태의 Pulsed-AC 방식을 채택하여 근접거리에서 Offset-Voltage 성능을 향상시킨 근접거리용 Laminar-flow Ionizer.

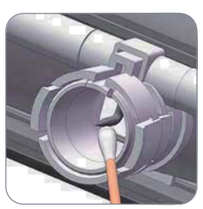
MB-LS Series is optimized for short distance because it has low offset-voltage performance by pin-crossing type pulsed AC method.



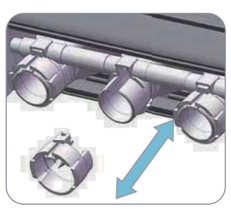
초소형 고압 트랜스 내장형 (고압케이블 불필요).

Slim and Light-weight Piezo-ceramic transformer built into Ion bar
(No need for separate bulky transformer/control unit).

무선 리모트 컨트롤 기능(개별제전기 선택, 이온밸런스, 주파수 변경, 설정상태 확인).
Wireless Remote Control (Select individual Ion bar unit to communicate, check ion balance, change frequency, and check current setting, etc).



간편한 관리 및 청소.
Easy Maintenance & Cleaning.

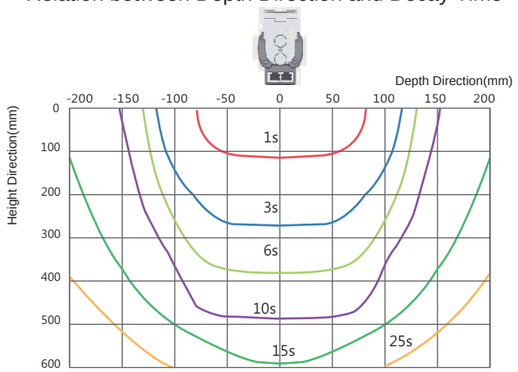


간편한 방전핀 교체.
Convenient emitter pin for replacement.

이물 생성을 최소화한 구조.
Structured to minimize dusts or pollutans.

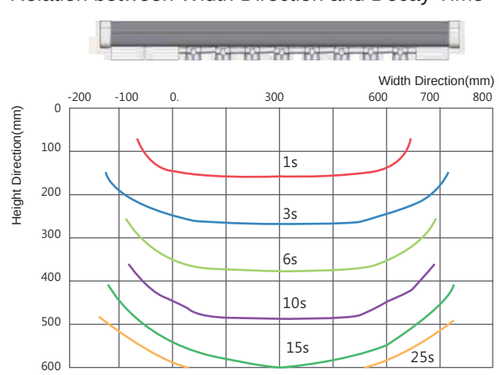
제품성능 / Product Performances

Relation between Depth Direction and Decay Time



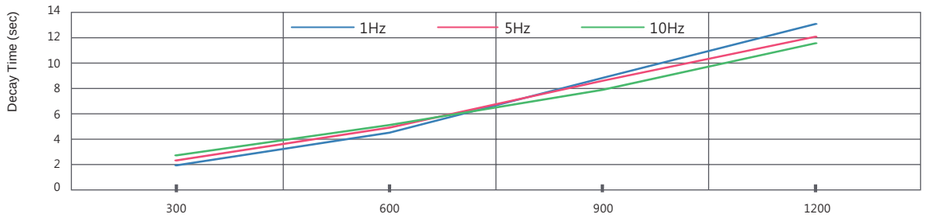
Down flow : 0.3m/s , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Frepuency : 30Hz

Relation between Width Direction and Decay Time



Down flow : 0.3M/s , Capacity : 20pF, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Frepuency : 30Hz

Relation between Distance and Decay time



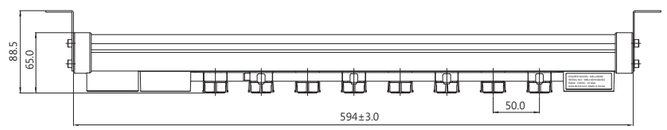
Down flow : 0.3m/s, Measurement condition : 1kV → 0.1kV
Charged plate dimensions : 150mm x 150mm, Capacity : 20pF

※상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

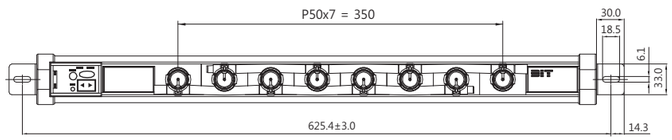
제품외관도 / Dimensions

MB-L0608S

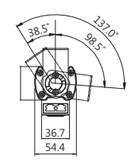
(Unit : mm)



<Front View>



<Bottom view>



<Bracket rotation>

Main Model	Length
MB - L0404S	394mm
MB - L0506S	494mm
MB - L0608S	594mm
MB - L070AS	694mm
MB - L080CS	794mm
MB - L090ES	894mm
MB - L100GS	994mm
MB - L110IS	1094mm
MB - L120KS	1194mm
MB - L130MS	1294mm
MB - L140OS	1394mm
MB - L150QS	1494mm

MB-LS Series의 길이는 최소 394mm 에서 최대 1494mm 까지 100mm 간격으로 길이 대응이 가능한 제품입니다.

Bar Length : Sizes available from min 394mm up to 1494mm at 100mm intervals.

※ 브라켓 및 전원 케이블(RJ45 A형) 포함
Bracket/Power cable(RJ45 A type) included

ION BLOWER

SF-40A

제품사양 / Product Specifications

Category	Specifications
입력 전압 (Input voltage)	DC 24V± 10%
입력 전류 (Input current)	MAX. 150mA
소모 전력 (Power consumption)	MAX. 4W
방전 전압 (Emitter voltage)	±4.0kV
출력 주파수 (Output frequency)	50kHz
이온 발생 방식 (Ion generating method)	Corona discharge
전압 인가 방식 (Voltage application method)	High-Frequency AC
재 질 (Material)	Body : ABS / Emitter Pins : Titanium
방전핀 교체 (Emitter replacement)	Replaceable
이온 밸런스 (Ion balance)	Under average ±10V
제전 거리 (Coverage distance)	100mm ~ 400mm
풍 량 (Air Volume)	Max. 0.27㎥/min
오존 발생량 (Ozone generation)	Under 0.05ppm
사용 온도 (Ambient temperature)	0℃ ~ +50℃ (32~122℉)
사용 습도 (Ambient humidity)	35~65%RH (No condensation)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

제품장점 / Advantages

간편한 관리 및 청소.
Easy maintenance & cleaning.

초소형 제전기.
Subminiature ionizer.

좁은 공간내 설치(자석부착).
Installable in cramped space.

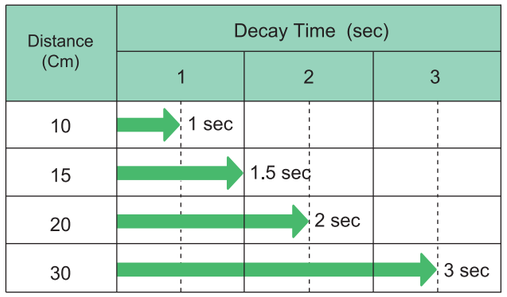
자유로운 회전 각도

풍향 360˚ 회전 및 상하 조절 기능.
360˚ vertical angle rotatable

ION BLOWER

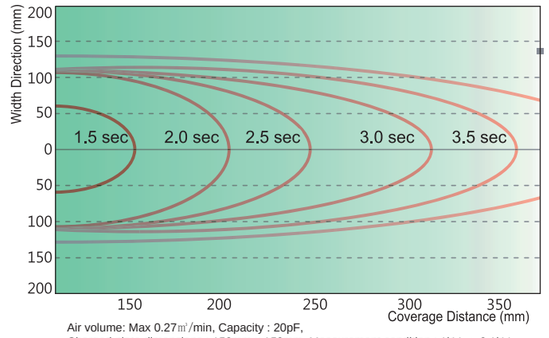
제품성능 / Product Performances

Relation between Distance and Decay Time



Air volume: Max 0.27㎥/min, Capacity : 20pF,
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV → 0.1kV

Relation between Width Direction and Decay Time



Air volume: Max 0.27㎥/min, Capacity : 20pF,
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV → 0.1kV

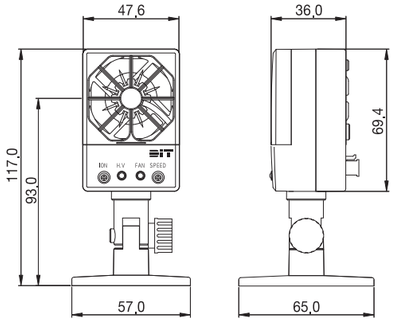
SF-40A 제품은 전원케이블, 접지선, 브라켓 보저형으로 구성되어 있습니다.
SF-40A package consists of a main unit, power cable, ground cable and optional bracket.

AC 어댑터가 부속되어 있지 않으며, AC 전원을 사용 할 경우 전용 어댑터를 구입하여 주십시오.
AC adapter is not included it may be bought separately if needed.

제품외관도 / Dimensions

※ 상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

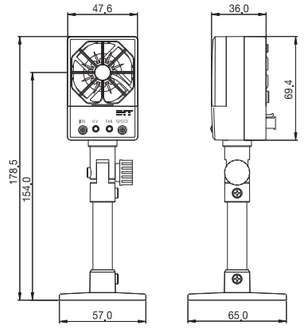
A. 브라켓 / A (Standard length)



<Front View> <Side View>

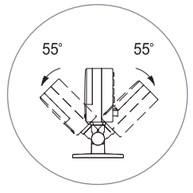
(Unit : mm)
(Weight : 116.9g)

B. 브라켓 / B (Extanded length)

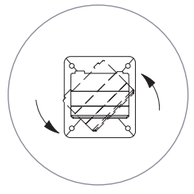


<Front View> <Side View>

(Unit : mm)
(Weight : 140.65g)



상하 조절
Installation Angle



좌우 360˚ 조절
360˚ rotation

MF-90 Series

제품사양 / Product Specifications

Category		Specifications
입력 전압 (Input voltage)		AC 100-240V 50/60Hz or DC 24V± 10%
입력 전류 DC (Input current)	1 - Fan	400mA
	2 - Fan	400mA
	3 - Fan	600mA
	4 - Fan	800mA
	5 - Fan	1200mA
소모 전력 (Power consumption)		MAX. 29W [on 5-Fan]
방전 전압 (Emitter voltage)		±4.0kV
출력 주파수 (Output frequency)		50kHz
이온 발생 방식 (Ion generating method)		Corona discharge
전압 인가 방식 (Voltage application method)		High-Frequency AC
재 질 (Material)		Body : ABS / Emitter Pins : Titanium
방전핀 교체 (Emitter replacement)		Replaceable
이온 밸런스 (Ion balance)		Under average ±15V
제전 거리(Coverage distance)		100mm ~ 1200mm
풍 량 (Air Volume)		Max. 1.75㎥ / min [per 1-Fan]
오존 발생량 (Ozone generation)		Under 0.05ppm
사용 온도 (Ambient temperature)		0℃ ~ +50℃ (32~122℉)
사용 습도 (Ambient humidity)		35~65%RH (No Condensation)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

제품장점 / Advantages

자유로운 팬 모듈, 공간상자 조립 방식으로 다양한 길이와 구성 가능.
Various assembly configurations of fan modules and spacing boxes are enabled.

간편한 유지 보수 및 청소.
Easy maintenance & cleaning.

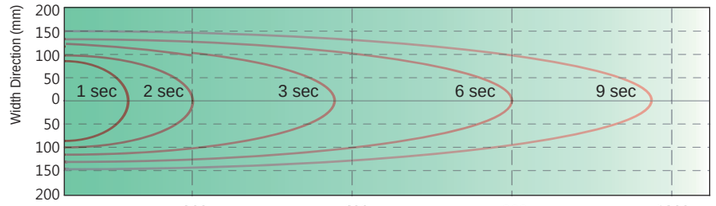
제품성능 / Product Performances

Relation between Distance and Decay Time

Distance (Cm)	Decay Time(sec)									
	1	2	3	4	5	6	7	8	9	10
30			2 sec							
60					3.5 sec					
90							6 sec			
120										9.5 sec

Air volume: Max 1.75㎥/min, Capacity : 20pF,
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV → 0.1kV

Relation between Width Direction and Decay Time



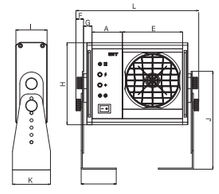
Air volume: Max 1.75㎥/min, Capacity : 20pF,
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV → 0.1kV

※상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

제품외관도 / Dimensions

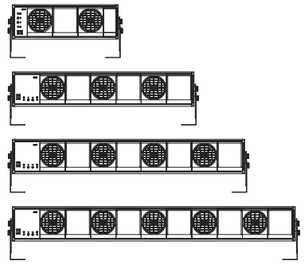
(Unit : mm)

Single type

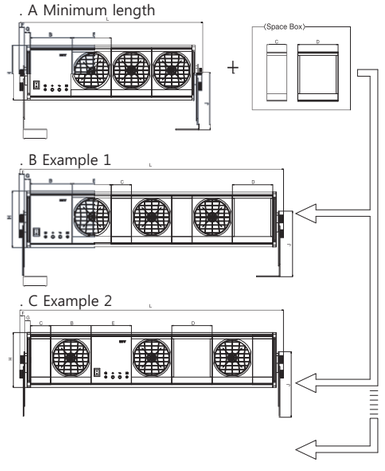


<Side View> <Front View>

Standard configurations



Multi-Fan type (Example: 3-fan) Customized configurations



Category	Code	Length	Remarks
Control Board	A	51.50	1-FAN, 2-FAN
	B	103.00	2-FAN, 3-FAN, 4-FAN, 5-FAN
Space Box	C	51.50	
	D	103.00	
Fan Module	E	103.00	
Bracket Ass'y	F	13.00	
Side Cover	G	15.20	
Height	H	141.85	
Depth	I	53.75	
Bracket Length	J	167.45	
Bracket Width	K	65.00	
Bracket Depth		60.00	

Category	Code		Min. Length
Blower Lengh	L	1-FAN	210.1
		2-FAN	313.1
		3-FAN	466.6
		4-FAN	569.6
		5-FAN	672.6

MF-A90 Series

제품사양 / Product Specifications

Category		Specifications
입력 전압 (Input voltage)		AC 100-240V 50/60Hz or DC 24V± 10%
입력 전류 DC (Input current)	1 - Fan	400mA
	2 - Fan	400mA
	3 - Fan	600mA
	4 - Fan	800mA
	5 - Fan	1200mA
소모 전력 (Power consumption)		MAX. 29W [on 5-Fan]
방전 전압 (Emitter voltage)		±6.5kV
출력 주파수 (Output frequency)		10Hz
이온 발생 방식 (Ion generating method)		Corona discharge
전압 인가 방식 (Voltage application method)		Pulsed AC
재 질 (Material)		Body : ABS / Emitter Pins : Titanium
방전핀 교체 (Emitter replacement)		Replaceable
이온 밸런스 (Ion balance)		Under average ±30V
제전 거리(Coverage distance)		200mm ~ 1200mm
풍 량 (Air Volume)		Max. 1.75㎥ / min [per 1-Fan]
오존 발생량 (Ozone generation)		Under 0.005ppm
사용 온도 (Ambient temperature)		0℃ ~ +50℃ (32~122℉)
사용 습도 (Ambient humidity)		35~65%RH (No Condensation)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

제품장점 / Advantages

자유로운 팬 모듈, 공간상자 조립 방식으로 다양한 길이와 구성 가능.
Various assembly configurations of fan modules and spacing boxes are enabled.

간편한 유지 보수 및 청소.
Easy maintenance & cleaning.

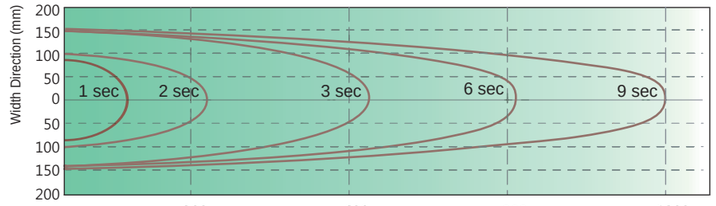
제품성능 / Product Performances

Relation between Distance and Decay Time

Distance (Cm)	Decay Time(sec)									
	1	2	3	4	5	6	7	8	9	10
30			1.8 sec							
60				2.8 sec						
90							5.8 sec			
120										9 sec

Air volume: Max 1.75㎥/min, Capacity : 20pF,
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV → 0.1kV

Relation between Width Direction and Decay Time



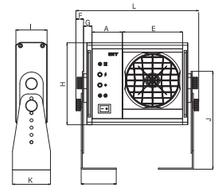
Air volume: Max 1.75㎥/min, Capacity : 20pF,
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV → 0.1kV

※상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

제품외관도 / Dimensions

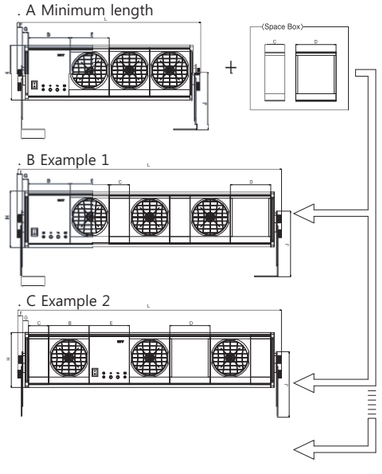
(Unit : mm)

Single type

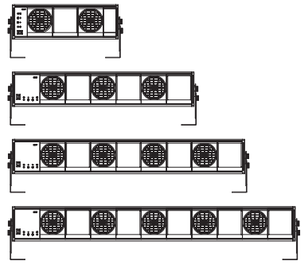


<Side View> <Front View>

Multi-Fan type (Example: 3-fan) Customized configurations



Standard configurations



Category	Code	Length	Remarks
Control Board	A	51.50	1-FAN, 2-FAN
	B	103.00	2-FAN, 3-FAN, 4-FAN, 5-FAN
Space Box	C	51.50	
	D	103.00	
Fan Module	E	103.00	
Bracket Ass'y	F	13.00	
Side Cover	G	15.20	
Height	H	141.85	
Depth	I	53.75	
Bracket Length	J	167.45	
Bracket Width	K	65.00	
Bracket Depth		60.00	

Category	Code		Min. Length
Blower Lengh	L	1-FAN	210.1
		2-FAN	313.1
		3-FAN	466.6
		4-FAN	569.6
		5-FAN	672.6

AMF-AE Series

제품사양 / Product Specifications

Category	Specifications		
입력 전압 (Input voltage)	AC 100-240V 50/60Hz or DC 24V± 10%		
입력 전류 (Input current)	1 Fan	2 Fan	3 Fan
DC 24V	1.5A	x	x
AC 110V	610mA	1220mA	1830mA
AC 220V	250mA	500mA	750mA
소모 전력 (Power consumption)	MAX. 123W [on 3-Fan]		
방전 전압 (Emitter voltage)	±5.5kV(±5%)		
출력 주파수 (Output frequency)	10 ~ 50Hz (adjustable)		
이온 발생 방식 (Ion generating method)	Corona discharge		
전압 인가 방식 (Voltage application method)	Pulsed AC		
재 질 (Material)	Body : ABS / Emitter Pins : Titanium		
방전핀 교체 (Emitter replacement)	Replaceable		
이온 밸런스 (Ion balance)	Under average ±30V		
제전 거리(Coverage distance)	200mm ~ 1500mm		
풍 량 (Air Volume)	Max. 6.425㎥ / min (LEVEL5)		
기 능 (Functions)	Ion on/off, RS485 connect, Password PLC 신호조정, 방전핀 자동 청소, 동작주파수, Fan-Speed, Ion-Balance		
오존 발생량 (Ozone generation)	Under 0.005ppm		
사용 온도 (Ambient temperature)	0℃ ~ +50℃ (32~122℉)		
사용 습도 (Ambient humidity)	35~65%RH (No Condensation)		

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

제품장점 / Advantages

방전핀 자동 청소 기능 내장으로 유지보수에 대한 편리성 증대
Easy maintenance with auto cleaning function for emitter pin

. 제품 컨트롤러 원터치 버튼을 이용한 자동 청소기능 실행 가능.
Auto tip cleaning function by one-touch button on controller.

. 본체 메뉴 설정을 통한 일(DAY) 단위 자동 주기 청소 기능 탑재.
Auto tip cleaning function can be operated on a daily basis by setting menu.

. PLC / RS485를 이용한 원격 청소기능 동작 가능.
Remote control of auto pin cleaning function is available with PLC / RS485 communication.

탈착형 방전침 Ass'y 구조로 방전핀 교체 편리성 증대 / Easy replacement with removable emitter pin

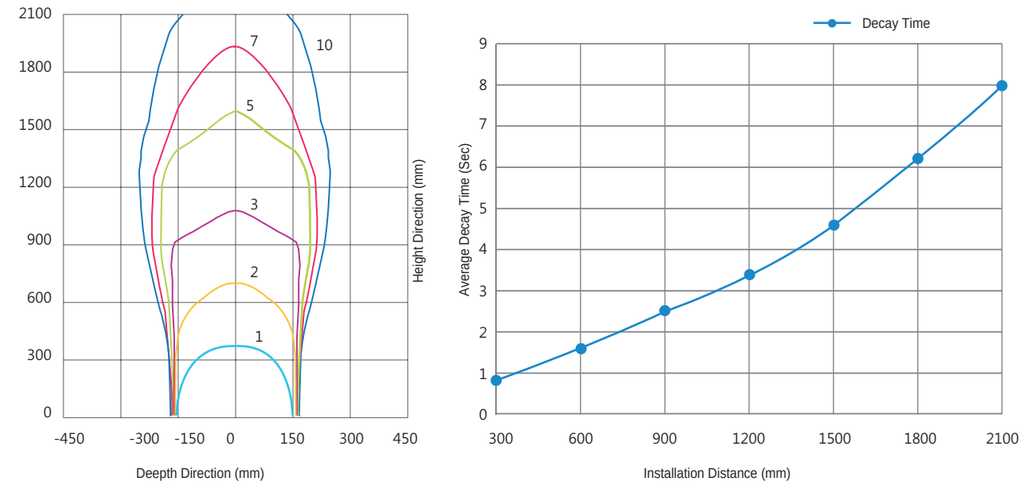
. 140mm Fan 사용으로 최대 풍량[1Fan 기준]
6.425㎥/min까지 사용 가능[5단계 조절 기능]
Air volume can be adjusted up to 6.425 ㎥/min(per 1 fan) by using 140mm Fan [5 levels].

. Auto-Balance 회로 내장으로 핀의 오염 및 마모에도 제전 성능의 장기간 유지 가능.
Stable performance for long period in spite of pollution, wear and tear on emitter pin by using auto-balance circuit.

. PLC / RS485 통신을 통한 원격 조정 기능.
Remote control is available with PLC / RS485 communication.

. 간편한 유지 보수 및 청소.
Easy Maintenance & Cleaning.

제품성능 / Product Performances



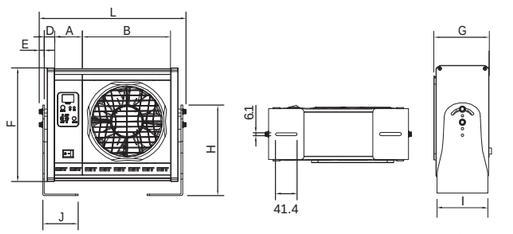
Air volume: Max 6.425㎥/min, Capacity : 20pF, Frequency : 30Hz
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV → 0.1kV

※ 상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

제품외관도 / Dimensions

(Unit : mm)

* Single type



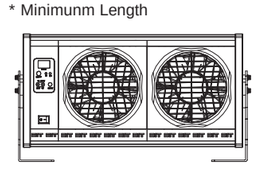
<Front View> <Bottom View> <Side View>

Category	Code	Length	Remarks
Contoller	A	54.6	
	B	170.0	
	C	56.6	
	D	18.6	
	E	9.6	
Height	F	217.8	
Width	G	106.1	
Bracket Height	H	173.6	
Bracket Width	I	97.5	
Bracket Depth	J	68.0	

Category	Code		Length
Blower Lengh	L	1-Fan	262
		2-Fan	432
		3-Fan	602

* Multi-Fan Type (Example:2-fan) Customized configurations

* Minimunm Length



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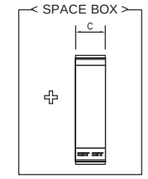
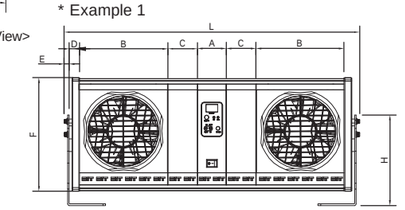
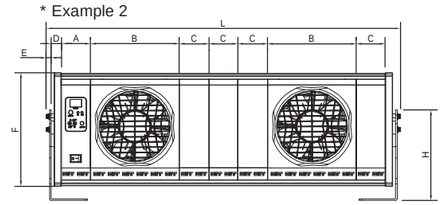


* Example 1



* Example 2



ASF-AD/PD Series

제품사양 / Product Specifications

Category	Specifications	
Model Type	AD Type	PD Type
이온 발생 방식 (Ion generating method)	Pulsed AC	High Frequency
출력주파수 (Output frequency)	10 ~ 50Hz (adjustable)	29kHz
입력전압 (Input voltage)	AC100~240V(50/60Hz) or DC 24V±10%	
입력전류 DC (Input current)	Max 0.8A	
방전핀 (Emitter pin)	Titanium	
이온 밸런스 (Ion balance)	< ± 10V Typical	
제전시간 (Decay Time)	Better than 2.0 seconds at 600mm [Fan Speed Max(Level 5)]	
풍량 (Air Volume)	Max 4.6㎥/min per Fan	
오존 발생량 (Ozone generation)	Under 0.005ppm	Under 0.05ppm
표시기능 (Display)	7segment-Display, High Voltage Alarm LED(G/R), Fan Alarm LED(G/R) ※ Green : Normal, Red : Abnormal	
수동조절기능 (Functions)	Fan Speed, Operating frequency, Ion-balance, Auto-cleaning, PLC Alarm Select, Address, Ionizer On/Off, Password	
청소기능 (Pin cleaning)	Option (Auto or Manual)	
무게 (Weight)	Max 1.8kg	
사용 온도 (Ambient temperature)	0℃~50℃	
사용 습도 (Ambient humidity)	35~65%RH(No Condensation)	

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

제품장점 / Advantages

유지보수의 편의성 극대화 / Maximized convenience of maintenance

. 청소 브러시 장착으로 핀 청소 용이
(자동핀 청소/수동핀 청소 모델 선택 가능)
Easy to clean emitter pins with a pin brush
(Option: Auto pin cleaning type or Manual pin cleaning type)

. 뒷면 커버 분리형으로 팬 청소 용이
Easy to clean a fan with a removable rear fan cover

. Auto-Balance 회로 내장으로 핀의 오염 및 마모에도
제전 성능의 장기간 유지 가능
Stable performance for long period in spite of pollution, wear and tear on emitter pins by using auto-balance circuit

다양한 옵션으로 사용자 환경에 최적화 / Optimized for user environments with various options

. 제전 방식(고주파 AC/Pulsed AC)에 따른 모델 선택 가능)
Able to choose products by the types of ion generating methods (H/F AC or Pulsed AC)

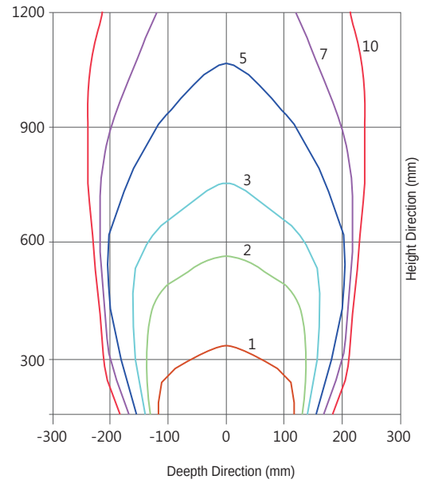
. 전원 사양(DC/AC)에 따른 모델 선택 가능
Able to choose products by the types of input voltage systems (DC 24V or AC 100~240V)

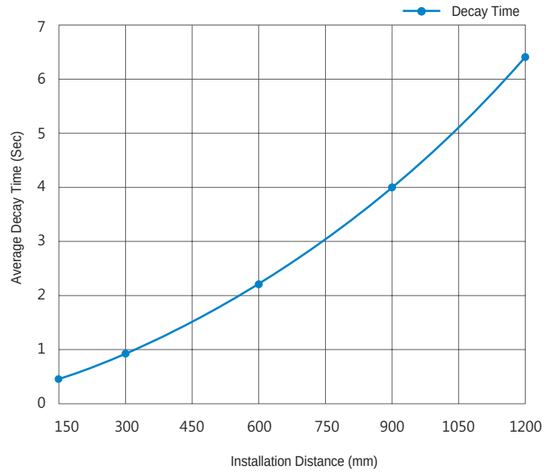
. 메뉴에서 알람 시그널 출력 방식(NPN/PNP) 설정 가능
Able to choose output signal methods (NPN or PNP)

. 5단계 풍량 선택 가능(120mm fan 적용으로 최대 Max 4.6㎥)
Air volume can be adjusted up to 4.6㎥/min(per 1 fan) by using 120mm Fan [5 levels]

. PLC/RS485 통신을 통한 원격 조정 가능
Remote control is available with PLC / RS485 communication

제품성능 / Product Performances



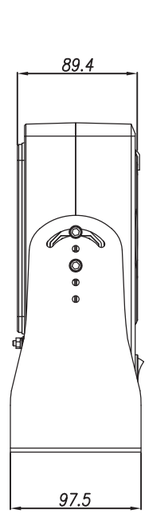


Air volume: Max 6.425㎥/min, Capacity : 20pF
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV → 0.1kV

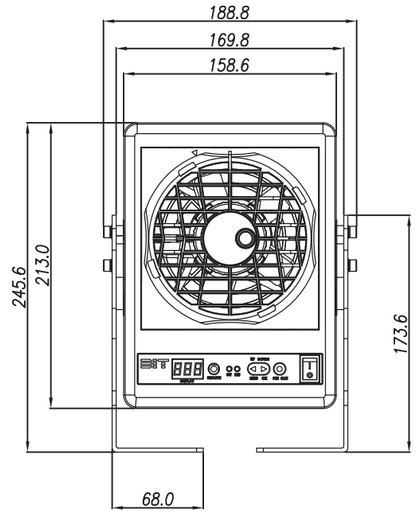
※상기 성능그래프는 당사 실험실 기준입니다. (This graph is based on our laboratory environment testing.)

제품외관도 / Dimensions

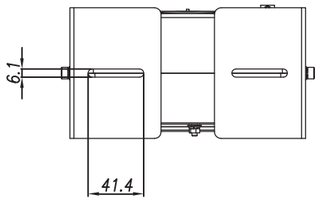
(Unit : mm)



Side View



Front View



Bottom View

ION NOZZLE

ZM-G11 / ZM-G12

ZM-G11 (Standard)

ZM-G12 (Option)

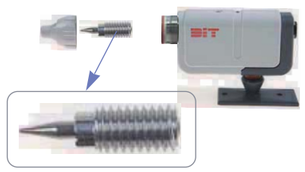
제품사양 / Product Specifications

Category		Specifications
입력 전압 (Input voltage)		DC 24V± 10%
입력 전류 (Input current)		200mA
소모 전력 (Power consumption)		MAX. 5W
방전 전압 (Emitter voltage)		±4.0kV
출력 주파수 (Output frequency)		50kHz
이온 발생 방식 (Ion generating method)		Corona discharge
전압 인가 방식 (Voltage application method)		High-Frequency AC
재 질 (Material)		Body : ABS / Emitter Pins : Titanium
방전핀 교체 (Emitter replacement)		Replaceable
이온 밸런스 (Ion balance)		Under average ±15V
공급 에어 (Air)	종 류 (Type)	CDA(Clean Dry Air), N2
	압 력 (Pressure)	0~0.5 Mpa
	분출력 (Blow-off-Force)	128L/㎡ [0.3Mpa]
	공급튜브 직경 (Air tube diameter)	6pi (Outside)
오존 발생량 (Ozone generation)		Under 0.05ppm
사용 온도 (Ambient temperature)		0℃ ~ +50℃ (32~122°F)
사용 습도 (Ambient humidity)		35~85%RH (No Condensation)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance

제품장점 / Advantages

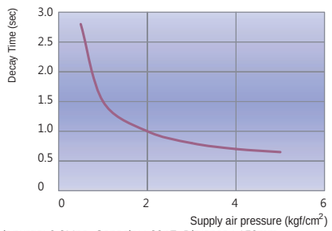
알람 출력 기능
High voltage alarm output



간편한 청소 및 유지관리
Easy cleaning and maintenance

제품성능 / Product Performances

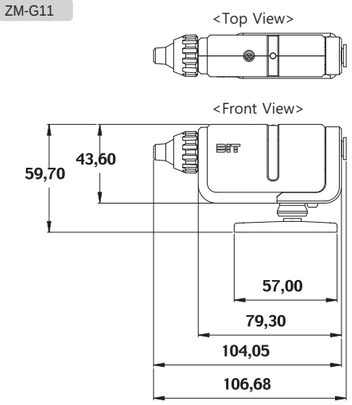
Relation between Supply air pressure and Decay Time



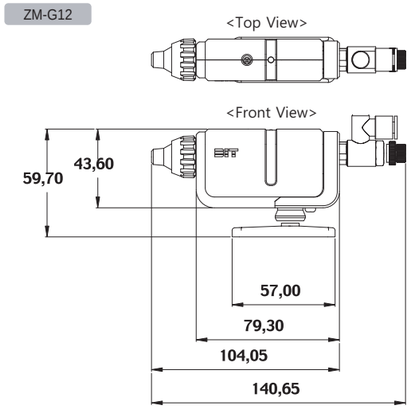
Air purge: 0.3Mpa, Capacity : 20pF, Distance : 150mm
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV→0.1kV
※ 상기 성능그래프는 당사 실험실 기준입니다.
(This graph is based on our laboratory environment testing.)
(Unit : mm)

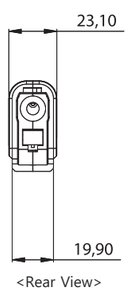
제품외관도 / Dimensions

ZM-G11



ZM-G12





ION GUN

ZM-G1G

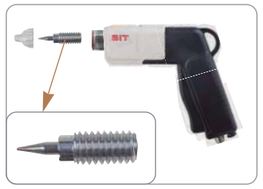
제품사양 / Product Specifications

Category		Specifications
입력 전압 (Input voltage)		DC 24V± 10%
입력 전류 (Input current)		200mA
소모 전력 (Power consumption)		MAX. 5W
방전 전압 (Emitter voltage)		±4.0kV
출력 주파수 (Output frequency)		50kHz
이온 발생 방식 (Ion generating method)		Corona discharge
전압 인가 방식 (Voltage application method)		High-FrequencyAC
재 질 (Material)		Body : ABS / Emitter Pins : Titanium
방전핀 교체 (Emitter replacement)		Replaceable
이온 밸런스 (Ion balance)		Under Average ±15V
공급 에어 (Air)	종 류 (Type)	CDA(Clean Dry Air), N2
	압 력 (Pressure)	0~0.5Mpa
	유 량 (Flow) / Per 1 emitter	128L/㎡ [0.3Mpa]
	공급튜브 직경 (Air tube diameter)	6pi (Outside)
오존 발생량 (Ozone generation)		Under 0.05ppm
사용 온도 (Ambient temperature)		0℃ ~ +50℃ (32~122°F)
사용 습도 (Ambient humidity)		35~85%RH (No condensation)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance

제품장점 / Advantages

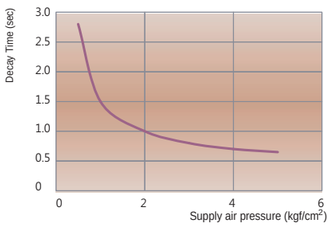
알람 출력 기능
High voltage alarm output



간편한 청소 및 유지관리
Easy cleaning and maintenance

제품성능 / Product Performances

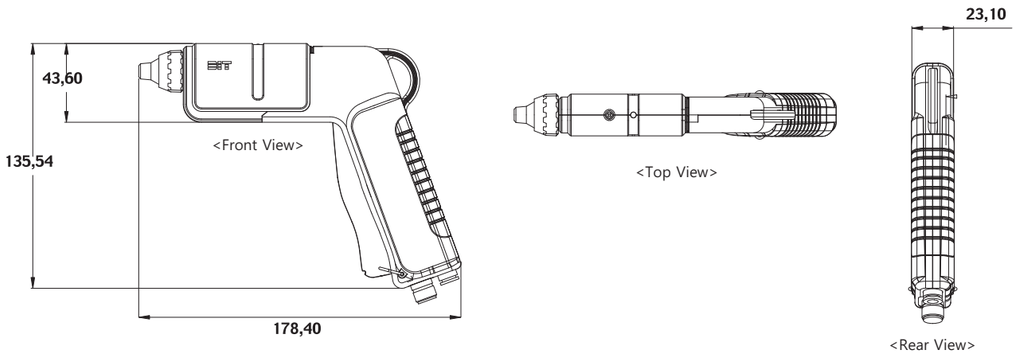
Relation between Supply air pressure and Decay Time



Air purge: 0.3Mpa, Capacity : 20pF, Distance : 150mm
Charged plate dimensions : 150mm x 150mm, Measurement condition : 1kV→0.1kV
※ 상기 성능그래프는 당사 실험실 기준입니다.
(This graph is based on our laboratory environment testing.)
(Unit : mm)

제품외관도 / Dimensions

Main Unit



CHARGED-PLATE MONITOR

ARC-P102ZA

제품사양 / Product Specifications

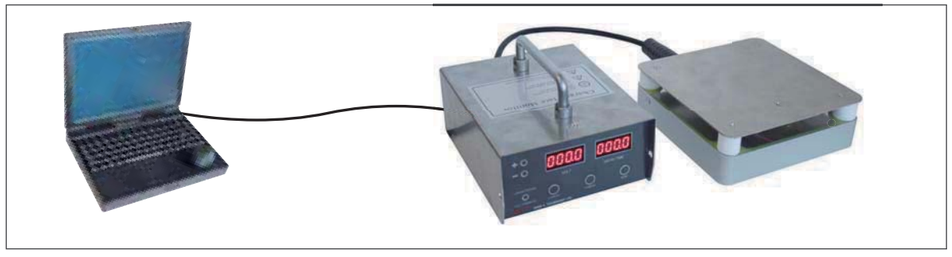
Category		Specifications
컨트롤러 (Controller)	규 격 (Dimension)	63mm(H) x 125mm(W) x 154mm(D)
	무 게 (Weight)	<1.2Kg
플래이트 (Plate)	규 격 (Dimension)	150mm x 150mm x 43mm(H)
	정전용량(Capacitance)	20pF ± 2pF
	무 게 (Weight)	<0.8Kg
센서 (Sensor)		Oscillating Chopper Type (DIT)
입력 전압 (Input-Voltage)		12Vdc ± 10%
입력 전류 (Input-Current)		1A
충전지 사양 (Battery-Specification)		NiMH 7.2V 6Pack
충전 시간 (Battery Charging Time)		3hrs(Until Full charge)
사용 시간 (Battery Use Time)		8hrs(Full charge statement)
이온밸런스 측정 (Float Mode)	Range	0 to ±1100V DC or Peack AC
	Stability	< 10% of Initial Voltage with 5minutes [40% RH at 25℃]
제전속도 측정 (Decay-time)	Start/Stop Accuracy	±1V in setting value
	Time Resolution	0.1sec(0.1~999.9sec)
	Range	Start Voltage : ±1 ~ ±1000V / Available 1V inetrvers. Stop Voltage : 0 ~ ±999V / Available 1V inetrvers.
재질 (Material)	Controller	SUS 1.2T
	Plate	SUS 1.2T
기 능 (Function)		(+)Decay-time, (-)Decay-time, Reset
디스플레이 (Display)		FND 2 set(Plate-Voltage, Decay-time)
통신 사양		USB Communication
사용 온도 (Ambient Temperature)		5℃ ~ 35℃
사용 습도 (Ambient Humidity)		RH 80% Under (No-Condensation)
보관 온도 (Storage Temperature)		0℃ ~ 50℃
보관 습도 (Storage Humidity)		RH 80% Under (No-Condensation)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

제품장점 / Advantages

Plate 손잡이 구조와 본체(Controller)의 소형/경량화로 휴대성 증대
Improving portability, minimizing structure of plate handle and controller.

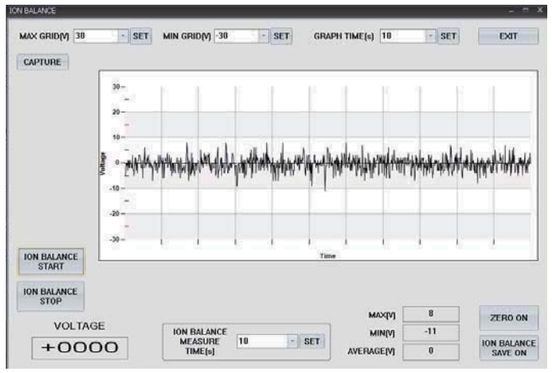
무상 제공 프로그램을 이용한 PC에서의 측정값 확인 및 저장 가능
Real time monitoring and data logging in computer by free software.



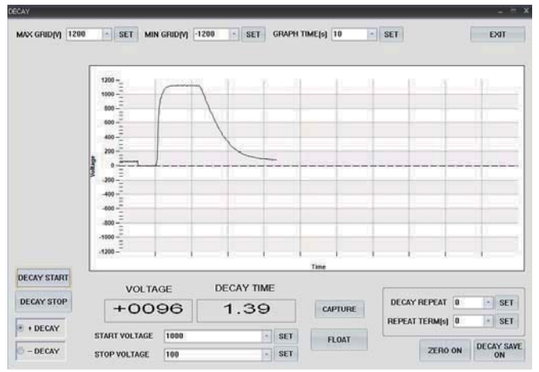
CHARGED-PLATE MONITOR

측정 그래프 / Measurement Graph

<Ion Balance>



<Decay time>



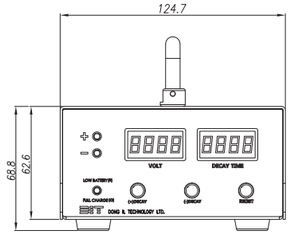
※ Ion balance 또는 Decay time 측정 전 정확한 데이터를 얻기 위하여 Conductive plate부를 Ground시킨 후 전면의 Reset 버튼을 1초 이상 길게 눌러 "Zero"셋팅을 실시한 후 사용하세요.
※ In order to obtain accurate data, Please use Zero setting to press the reset button after earth conductive plate

※ 상기 그래프는 당사 제전기를 이용한 임의 측정자료 입니다. (Above graph of value is based on DIT's own ionizer.)

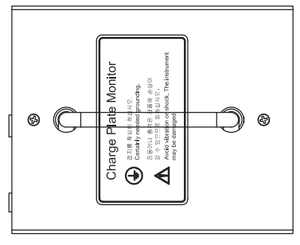
제품외관도 / Dimensions

(Unit : mm)

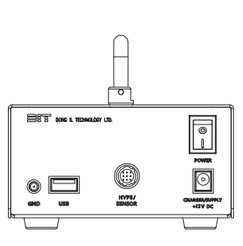
<Controller>



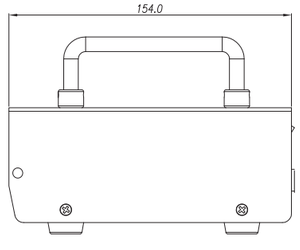
<Front View>



<Top View>

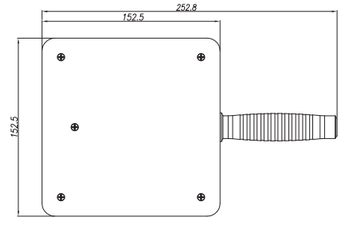


<Rear View>

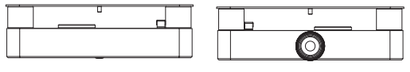


<Side View>

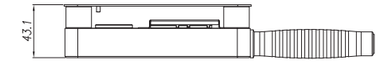
<Charging Plate>



<Top View>



<Front View> <Rear View>



<Side View>

ION - BALANCE CHECKER

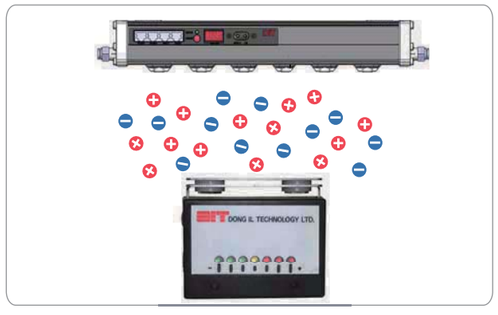
ARS-M002ZA

제품사양 / Product Specifications

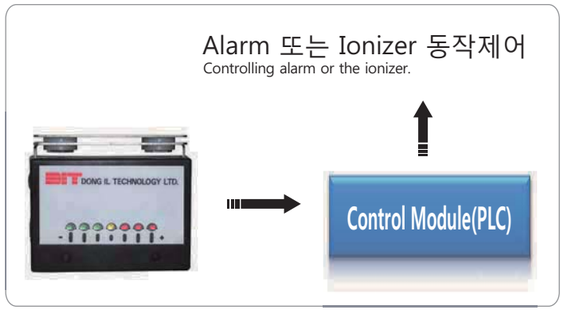
Category	Specifications
제품 규격 (Dimension)	65mm(W) x 55.4mm(H) x 24.3mm(D)
입력 전압 (Input Voltage)	12~24V
센 서 (Sensor)	Oscillating Chopper Type(DIT)
측정 범위 (Sensing Range)	LED 1 ON :±10V upper ±50V under LED 1,2 ON :±50V upper ±100V under LED 1,2,3 ON :±100V upper
응답 속도 (Response time)	1sec
기 능(Function)	Ion Balance Check
디스플레이 (Display)	Color LED
재 질 (Material)	ABS (Conductive)
통 신 (Communication)	Analog output (1~5V)
사용 온도 (Ambient temperature)	10℃ ~ 40℃ (50~104℉)
사용 습도 (Ambient humidity)	0~60%RH (Non condensing)

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

제품장점 / Advantages



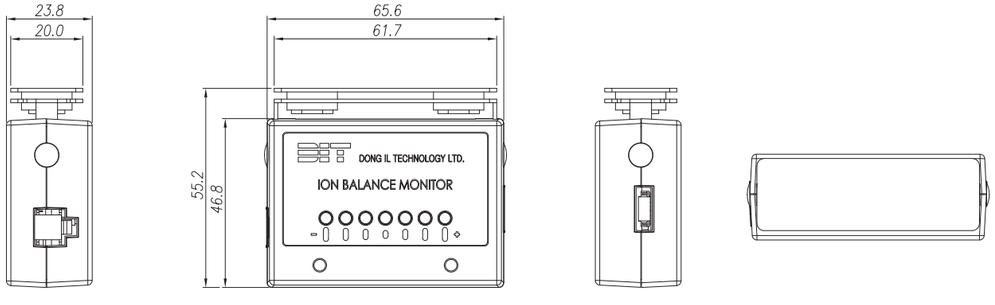
Ionizer 하단, 제품이 지나는 거리에서 Ion-balance 편향 여부/정도 측정
Monitoring Ion-balance, installing close to the object.



측정 데이터와 비례하는 아날로그 신호가 출력되므로, PLC등의 외부 제어모듈과 연동하여 관리 가능.

Connectable to external control module(PLC) by analog signal proportional to a measured data.

제품외관도 / Dimensions



<Side View> <Front View> <Side View> <Top View>

HAND-HELD ELECTROSTATIC FIELDMETER

ARS-H002ZA

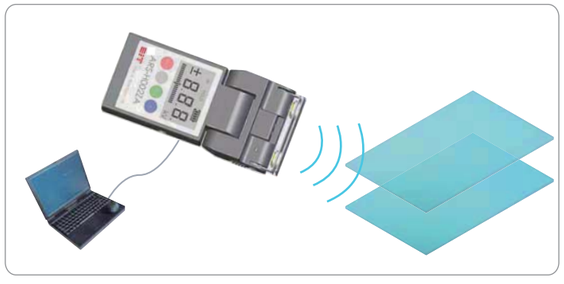
제품사양 / Product Specifications

Category	Specifications	
입력 전압 (Input voltage)	9V±10% (Alkaline battery use)	
센서 (Sensor)	Oscillating Chopper Type (DIT)	
측정 거리 (Distance)	25mm (±0.5mm)	
측정 범위 (Range / Autochange)	정밀모드 (Precise mode)	±2kV (±10%)
	확장모드 (Expanded mode)	±20kV (±10%)
	이온밸런스 측정모드 (Ion-Balance mode)	±300V (±10%)
해상도 (Resolution)	전위 측정모드 (Electrostatic voltage mode)	10V (-1.99kV~+1.99kV)
		100V (<-20.0kV, >+20.0kV)
	이온밸런스 측정모드 (Ion Balance mode)	1V
응답 속도 (Response time)	1sec	
디스플레이 (Display)	HTN-LCD	
통 신 (Communication)	USB communication	
사용 온도 (Ambient temperature)	10℃ ~ 40℃ (50~104℉)	
사용 습도 (Ambient humidity)	0~60%RH (Non condensing)	

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

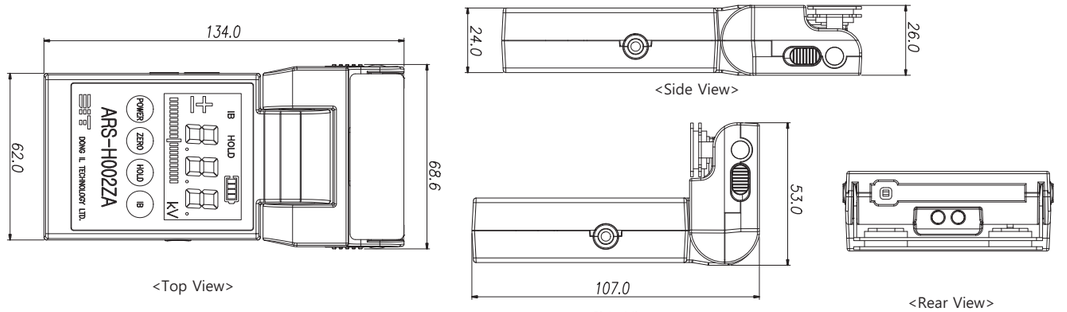
제품장점 / Advantages

헤더부 회전기능 / 이온 플레이트 회전구조로 측정 편리성 강화.
Rotatable header makes measuring electrostatic more convenient in anyplace.



PC와 연결하여 실시간 모니터링 / 저장 가능. (USB포트를 이용하여 측정값 전달)
Real time monitoring and data logging in computer through a USB port.

제품외관도 / Dimensions



<Top View> <Side View> <Rear View> <Side View>

ELECTROSTATIC FIELDMETER with Wireless Communications

ARS-M002Z2

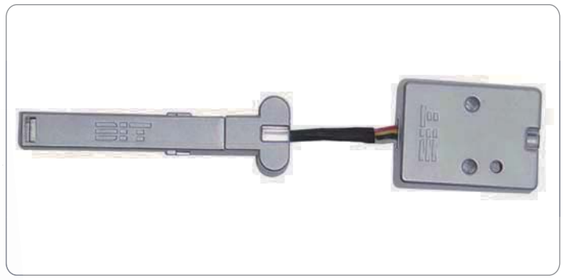
제품사양 / Product Specifications

Category	Specifications	
제품 규격 (Dimension)	(W)62 x (H)125 x (D)25.3(mm)	
입력 전압 (Input Voltage)	+9VDC ±10%(Alkaline Battery Use)	
센서 (Sensor)	Oscillating Chopper Type(DIT)	
측정 거리 (Sensing Distance)	25mm or 50mm	
측정 범위 (Sensing Range)	정밀모드 (Precise mode)	±2kV (±10%)
	확장모드 (Expanded mode)	±20kV (±10%)
측정 범위 (Sensing Range)	-9.99kV ~+9.99kV	10V
	<-10kV, +10kV<	100V
응답 속도 (Response time)	1sec	
기 능 (Function)	Power On/Off, Zero-adjustment, Distance-adjustment	
디스플레이 (Display)	HTN-LCD	
재 질 (Material)	ABS (Conductive)	
통 신 (Communication)	Wireless communication (Use Zigbee)	
사용 온도 (Ambient temperature)	10℃ ~ 40℃ (50~104°F)	
사용 습도 (Ambient humidity)	0~60%RH (Non condensing)	

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

제품장점 / Advantages

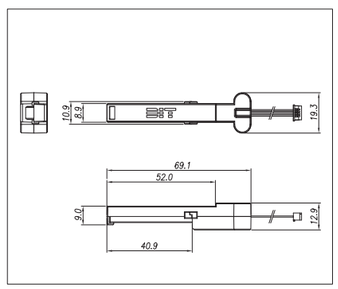
Zigbee 무선통신을 이용하여 측정된 정전기 데이터의 PC모니터링 가능.(동시 최대 4대 / 무상 프로그램 제공)
Real time monitoring and data logging in computer by free software through Zigbee wireless communication(Max 4 units)



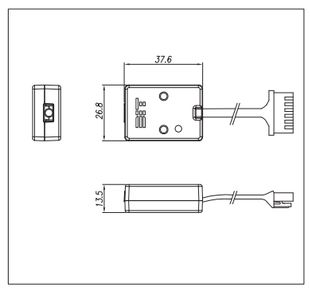
센서와 Amp를 분리함으로서 좁은 공간에도 측정이 용이하도록 소형화 되었습니다.
Dividing sensor and amp makes measuring electrostatic more convenient in confined space.

제품외관도 / Dimensions

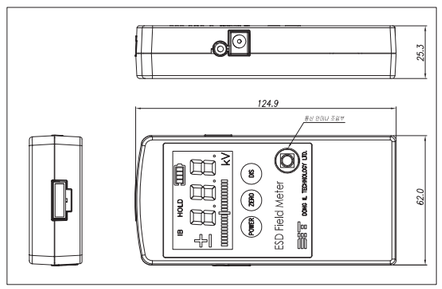
<SENSOR>



<AMP>



<BODY>



ELECTROSTATIC FIELDMETER

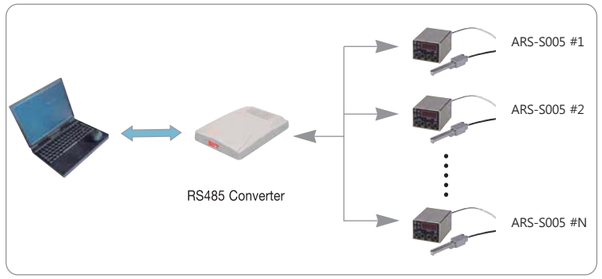
ARS-S005 Series

제품사양 / Product Specifications

Category	Specifications	
입력 전압 (Input voltage)	DC 24V ±10%	
입력 전류 (Input current)	130mA	
소모 전력 (Power consumption)	Max 3W	
센 서 (Sensor)	Oscillating Chopper Type (DIT)	
측정 거리 (Distance)	정밀모드 (Precise mode)	25mm (±0.5)
	확장모드 (Expanded mode)	50~100mm (±0.5) can be changed to 10mm unit
측정 범위 (Range)	정밀모드 (Precise mode)	±2kV (±5%)
	확장모드 (Expanded mode)	±20kV (±10%)
해상도 (Resolution)	정밀모드 (Precise mode)	1V
	확장모드 (Expanded mode)	10V
선형도 (Linearity)	±5% F.S	
응답 속도 (Response time)	20ms (Can be programmed)	
아날로그 출력 (Analog output)	ARS-S005W1	Output voltage (1~5v)
	ARS-S005U1	Output voltage (0~5v)
	ARS-S005C1	Output current (4~20mA)
통 신 (Communication)	RS-485	
사용 온도 (Ambient temperature)	0℃ ~ +50℃ (32~122°F)	
사용 습도 (Ambient humidity)	35~85%RH (Non condensing)	

※ 제품의 사양은 성능 개선을 위하여 별도의 통보 없이 변경될 수 있습니다.
Specification is subject to change without notice for the improvement of product performance.

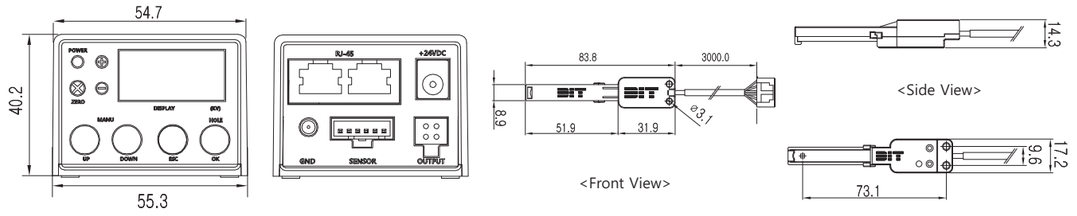
제품장점 / Advantages



1대의 컴퓨터로 최대 30대의 ARS-S005 Series를 실시간 모니터링 할 수 있습니다.
[RS485통신 사용]
User can monitor up to 30 ARS-S005 Series units in real-time with one computer.
[using RS485]

모니터링 프로그램 무료제공. (※ 별도의 UI 변경/제작 불가)
Free monitoring program can be down-loaded on web-site
(※ Customizing UI is not available)

제품외관도 / Dimensions



<Front View>

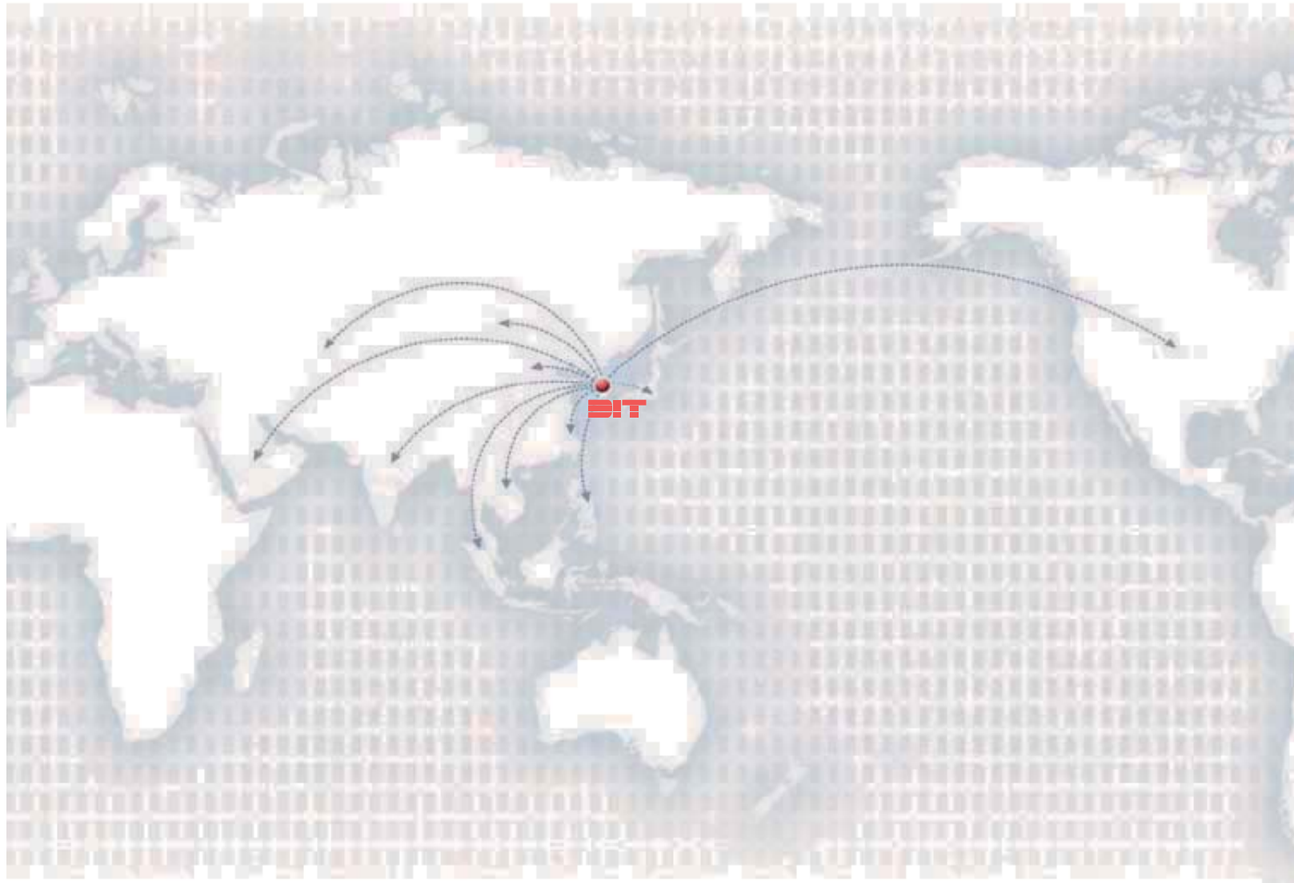
<Rear View>

<Front View>

<Side View>

<Rear View>

메모 MEMO



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