

Upgrading and updating of new function!



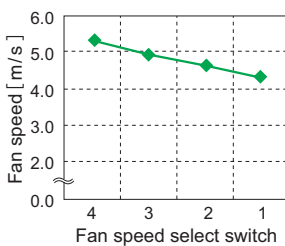
No compressed air needed

## Compact size of 150 × 166 × 62 mm (5.906×6.535×2.441in) Low-volume fan type also available for various applications

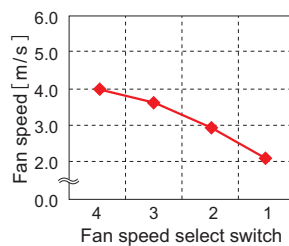
- An ionizer with a 120 mm 4.724 in fan diameter that has a class leading compact size for reducing workbench clutter and increasing efficiency.
- Low-volume fan type with a suppressed fan speed of approx. half is available for charge removal in processes which involve handling of small parts or thin films.

※Graphs represent typical values at 300 mm 11.811 in from directly in front of air outlet, straight louver, with no filter installed.

Standard fan type ER-F12A



Low-volume fan type ER-F12SA



## Equipped with discharge needle fouling detection function **New functions**

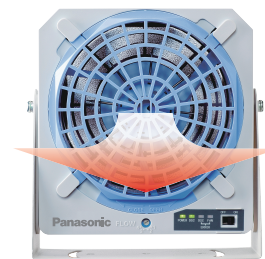
Additionally equipped with discharge needle fouling detection function. When discharge becomes weak due to needle fouling, the DSC indicator will flash for notification.



## Two exchangeable louvers to suit your needs

- Just simply replace the louver to change configuration between long distance and wide area ionization.
- The two louvers come with the ionizer main body.

Straight louver



Removes charges quickly at long distance

Angle louver



Removes charges completely in wide area

## Remove the louver for effortless maintenance

- Because the discharge needle unit is attached to the louver, exchange or maintenance of the needles is made easy without touching the main unit.
- A safe design where once the louver is removed, the high voltage circuit and the fan will halt.



## SPECIFICATIONS

Item	Type	Standard fan type	Low-volume fan type
	Model No.	ER-F12A	ER-F12SA
CE marking compliant directives	EMC Directive, RoHS Directive		
Charge removal time ( $\pm 1,000V \rightarrow \pm 100V$ )	1 sec. approx. (Note 2)	1.5 sec. approx. (Note 2)	
Ion balance	$\pm 10 V$ or less (Note 3)		
Power supply voltage	24V DC $\pm 10\%$		
Power consumption	700 mA or less	400 mA or less	
Discharge method	High-frequency AC method		
Discharge output voltage	$\pm 2 kV$ approx.		
Main functions	Error output, Discharge halt input		
Indicators	Discharge error (Red), Fan error (Red), Power (Green), Discharge (Green)		
Ozone generation amount	0.04 ppm or less (Note 2)		
Ambient temperature	0°C to +50°C +32°F to +122°F (No dew condensation) Storage: -10°C to +65°C +14°F to +149°F		
Ambient humidity	35% RH to 65% RH (No dew condensation) Storage: 35% RH to 65% RH		
Grounding method	C (capacitor) grounding		
Material	Enclosure: ABS, Louver: ABS, Discharge needle unit: PBT Discharge needle: Tungsten, Bracket: SPHC		
Weight	Main unit: 790 g approx.		
Accessories	Straight louver: 1 pc. (Note 4), Angle louver: 1 pc. Caution label: 1 set, Rubber cushion: 1 pc.		

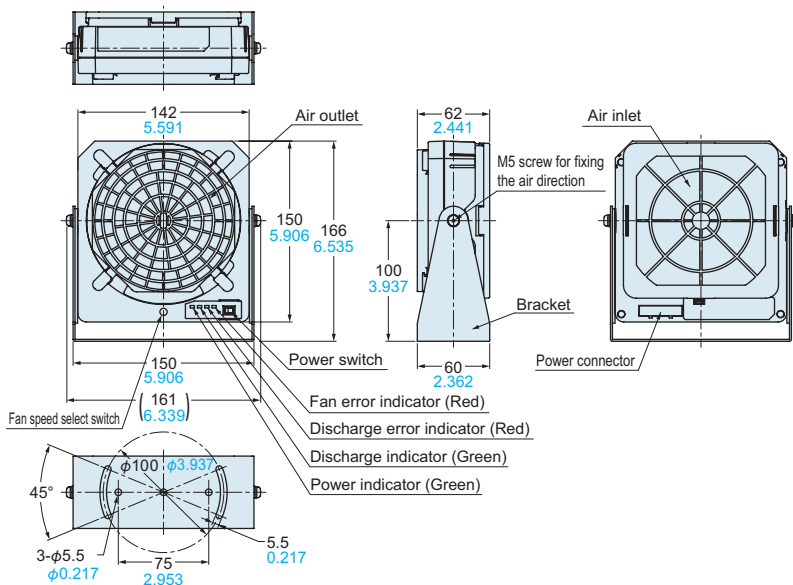
(Note 1) : If not specified, the ambient temperature for measurement is +20°C +68°F.

(Note 2) : Typical value at 200 mm 7.874in from directly in front of air outlet, fan speed MAX, straight louver, with no filter installed.

(Note 3) : Typical value at 300 mm 11.811in from directly in front of air outlet, fan speed MAX, straight louver, with no filter installed.

(Note 4) : The discharge needle unit is loaded on the straight louver before shipment.

## DIMENSIONS (Unit: mm in) CAD data of the dimensions can be downloaded from the website.



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## OPTIONS (Sold Separately)

### ER-FAPS-J2 / AC Adaptor

· IN: 100V to 240V AC, 50/60Hz · OUT: 24V DC, 1.5A  
· Cable length between connector and AC adaptor: 1.8 m 5.905 ft\*  
\*The rated voltage of AC cable for AC adaptor is 125V AC. Prepare suitable AC cable separately if the operational voltage exceeds 125V AC.

### ER-F12ANT / Discharge needle unit

Unit with tungsten needles (1 pc.)

### ER-F12FX5 / Air filter

Replacement filter (5 pcs. per set)

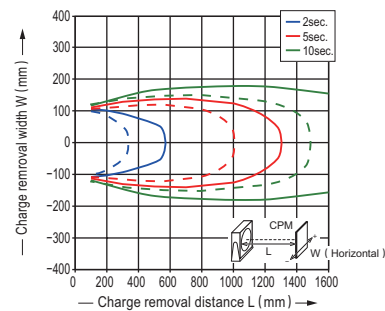
## CHARGE REMOVAL CHARACTERISTICS (TYPICAL)

Measured using a 150 mm 5.906 in CPM (charge plate monitor)  
(At center of CPM)

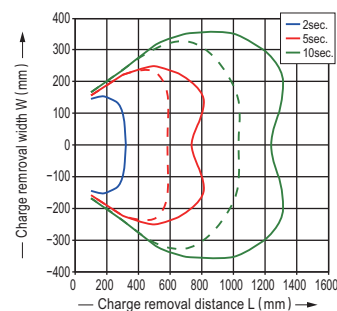
### ER-F12A ER-F12SA

Solid lines in the graphs show ER-F12A. Dotted lines show ER-F12SA.

Charge removal field (Fan speed MAX, straight louver is mounted)



Charge removal field (Fan speed MAX, angle louver is mounted)



## PRECAUTIONS FOR PROPER USE

- Do not use this product as a device for assuring human safety.
- If it is desired to use the product for assuring human safety, it must comply with OSHA, ANSI, IEC and other laws and standards of various countries regarding human safety assurance.
- Do not use this product in places where there may be a danger of flammable or combustible items being present.
- If this product is used in an airtight room, ozone emitted from this product may be detrimental. Therefore, in order for this product to be used in an airtight room, be sure to keep the room ventilated.
- Since the tip of the discharge needle is sharp, take sufficient care in handling the discharge needle.
- Clean the discharge needle regularly, otherwise optimum charge removal performance may not be obtained and fire or operating problems may occur.
- Be sure to ground the frame ground (F.G.) terminal.

