
RV ESD(Electrostatic Discharge) ESD Generator

Overview

Electrostatic discharge (ESD) is a common natural phenomenon. The effects of ESD on electrical and electronic equipments, devices or systems are everywhere. It is a very high degree of harmful electromagnetic energy. Only to improve the level of anti-static interference can ensure the safe use of electronic products. ESD generator is used to evaluate the electrostatic immunity performance of electrical components and electronic equipments by simulating real electrostatic discharge as defined in the standard ISO 10605 and IEC 61000-4-2. Kindly find below features & technical data of our model RV ESD

Standard and basis of product designing & manufacturing

- ISO 10605: Road vehicles — Test methods for electrical disturbances from electrostatic discharge
- IEC/EN61000-4-2: Testing and measurement techniques – Electrostatic discharge immunity test

Power supply

- Input voltage: AC220V (≥150W)
- Frequency: 50/60Hz
- Voltage resolution: 1V
- Voltage harmonic distortion≤5%

Environment

- Indoor use
- Altitude not exceeding 1000metres
- Ambient temperature 15°C~35°C
- Relative humidity no more than 85%
- No conductive dust, no fire or explosion hazard, no corroding metal or insulating gas, sine wave voltage waveform, waveform distortion rate≤5%
- Earthing resistance not more than 0.5Ω

Features

- User friendly 7" Touch Panel Display
- Support multi-language & facilitate users
- Built-in environment self-test program
- Programmable operation
- Pre-programmed ISO 10605 and IEC 61000-4-2 test settings
- Very convenient to replace the discharge modules to meet different standards of the test requirements

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- RS232 / USB Port, PC control operation & printable test report

Picture



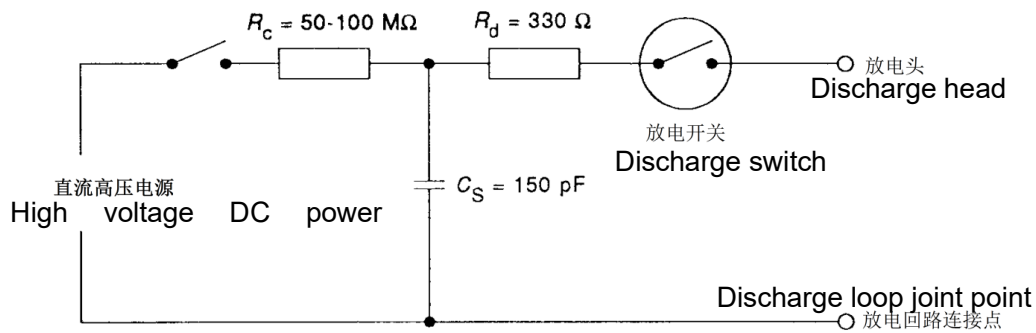
Technical data

Model	ESD 20K
Standard	ISO 10605、IEC61000-4-2
Operation	7" Touch Panel Display
Output voltage	0.2~±30kV
Polarity	Positive/ negative/ alternating
Energy storage capacity	150pF、330 pF
Discharge resistor	330Ω、2000Ω
Discharge current rise time	0.6~1ns
The first peak current (±15%)	7.5A at 2kV/ 15.0A at 4kV/ 22.5A at 6kV/ 30.0A at 8kV
Current at 30ns (±30%)	4.0A at 2kV/ 8.0A at 4kV/ 12.0A at 6kV/ 16.0A at 8kV
Current at 60ns (±30%)	2.0A at 2kV/ 4.0A at 4kV/ 6.0A at 6kV/ 8.0A at 8kV
Holding Time (air discharge)	≥5s
Discharge Modes	Contact Discharge & Air Discharge
Operating Modes	Single discharge & repetitive discharges
Discharge Trigger	Manual, automatic or remote
Working Mode	IEC level mode/ user mode/ program mode/ voltage rising patterns
Discharge Interval	0.05~9.99s
Discharge Count	1~9999
Power Supply	AC220V ± 10%,50/60Hz

Ambient Temperature	15°C ~ 35°C
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Basic circuit diagram

In the figure, 150pF capacitor represents human body's energy storage capacitor, 330Ω resistor represents the body's resistance when the human body is holding keys and other metal tools.



Measured waveform

