Electrostatic Discharge Generator

Introduction

This electrostatic discharge generator is specially designed to simulate whether an aircraft, a rocket, a missile or weapon systems can operate safely, reliably, or be damaged after being subjected to a buildup of static electricity when flying at high speed through the sky.
It has a discharge voltage of up to 300kV, in compliance with standards such as MIL-STD-464D, MIL-STD-331D, GJB1389A, GJB573A, etc.
SXESD300 is used for Helicopter-borne ESD test and High Voltage Corona.
The inductance shall be determined at a nominal 1kHz frequency.



Type	Electrostatic Voltage (kV)	Capacitance (pF)	Resistance (Ω)	Circuit Inductance (μH)
Aircraft /Helicopter	300±5%	1000±5%	⩽1	Max 20

Features

1) HV non-inductance impulse capacitors are adopted;
2) Transportable with wheels at the base frames;
3) User friendly touch panel for remote control;
4) Automatic measurement system with optical fibre and precise current monitor;
5) Considerate safety measures;

- Automatic grounding system- after each test, the system will be automatically grounded to discharge the energy;
- Manual earthing rod;
- Door safety interlock;
- Audible and visual alarm;
- Emergency stop button;

Technical Parameters

Model	SX ESD 300
Impulse capacitor	1000pF ± 5%
Resistance of test circuit during test	≤1Ohm
Voltage calibration	100Ω Calibration Test Load
HV DC generator	Max. 360kV/-360kV, 10mA
Voltage of capacitor	360kV
Power supply requirement	3 phase, AC 380V 10A
Resistor for HV corona test	Resistance:250MΩ; Max. Voltage:360kV
Electrostatic discharge holder	Max. 4m high; Discharge distance:1.2m; Discharge sphere: copper; Adjustable range of discharge ball direction: ± 45°; Pneumatically operated;
Precipitation-static auxiliary test stand	Max. 4m high, adjustable height; Withstand 360kV; With sedimentary charge discharge; This test stand is used for the HV cables in the case that the HV cables are very long when the load is very large;
HV corona test device	1) Lifting Device Height: 0-4.5m; Bearing:250kg ; Insulation ⩾360kV; 2) Floor discharge device; Grounding level, holder of manual grounding rod,grounding rod;