



S N ENGINEERING

S N EARTHING & LIGHTNING PROTECTION

Solution
Provider

Zero Impedance
Earthing

Maintenance
free earthing

Earthing for
Transformer

Fire
Suppression

Voltage Solution
Provider

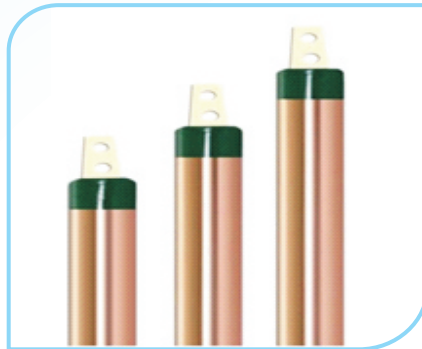
Solution for
Less than 1 ohm

Earthing
Monitoring Device

Lightning Arrester
Design as per
IEC 62305

ESE Lightning
Protection System
as per NFC 17-102

Conventional
Lightning Arrester



Copper Heavy Earthing Electrode



CPRI Heavy Earthing Electrode



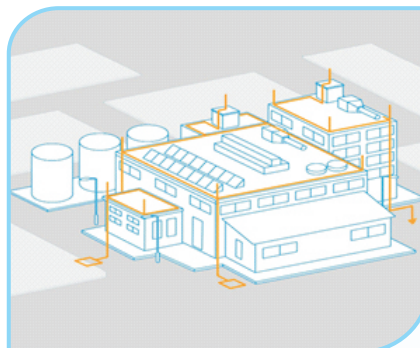
Copper Bonded Earthing Electrode



Grounding Monitoring Device



ESE Lightning Protection



NBC AS PER IEC 62305

Certification
CPRI Tested
MSME
ROHS
CE CERTIFIED

ISO 9001:2015
ISO 14001:2015



DIGITAL GROUNDING SYSTEM

Why Earthing

Earthing is a part of electrical circuit which is done on initial level in order to connect the electrical system with mass of earth so as to have discharge the electrical energy.

Need for Earthing:

- To ensure safety from electric shocks.
- To ensure that system voltages on active lines remain within reasonable limits under fault conditions thereby preventing insulation breakdowns.
- To provide an equipotential platform on which electrical and electronic equipments can operate.
- To provide an alternative path for induced current and minimize the electrical noise in cables.
- To provide a low impedance path to facilitate the satisfactory operation of protective devices under fault conditions.

Why Earthing With SN Engineering

SN Earthing is in the field of Earthing more than 10 years and we have cover each and every segment of earthing and lightning protection and providing every possible solution to our customer regarding earthing and lightning arrester benefit is working with sn engineering is we provide earthing solution not only earthing we manufacturer earthing as per application like heavy transformer, generator, panel, etc

we provide earthing solution as per sensitive equipment like electronic card failure, cnc, plc machine telecommunication tower substation etc.

BASIC MODEL OF SN EARTHING ELECTRODE

MODEL	LENGTH	INNER STRIP	OUTER PIPE
SNEG 58	2 MTR /3 MTR	25x6MM	58MM
SNEG77	2 MTR/ 3 MTR	25x6MM	77MM
SNECU50	2 MTR / 3MTR	25x3MM	50MM
SNECU77	2 MTR /3 MTR	25x6MM	77MM

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eca3G Perfect Ground System

(US Patent No 7,652,865 B2)

Proven performances at various national security sites :
3,845 sites for **16yrs**, Protection Success rate : **99.88%**

○ Brief Technology Information

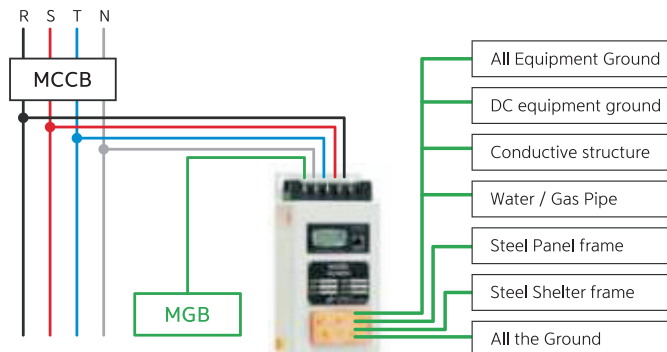
eca3G can detect surge, convert surge energy, neutralize, eliminate surge which may enter into the systems via power line, data line and conductive structures (such as water & gas piping lines, hydrant, steel structures).

eca3G has energy conversion and neutralization function to convert electric characteristics of surge into arc, heat, neutralization, and eliminate the surges.

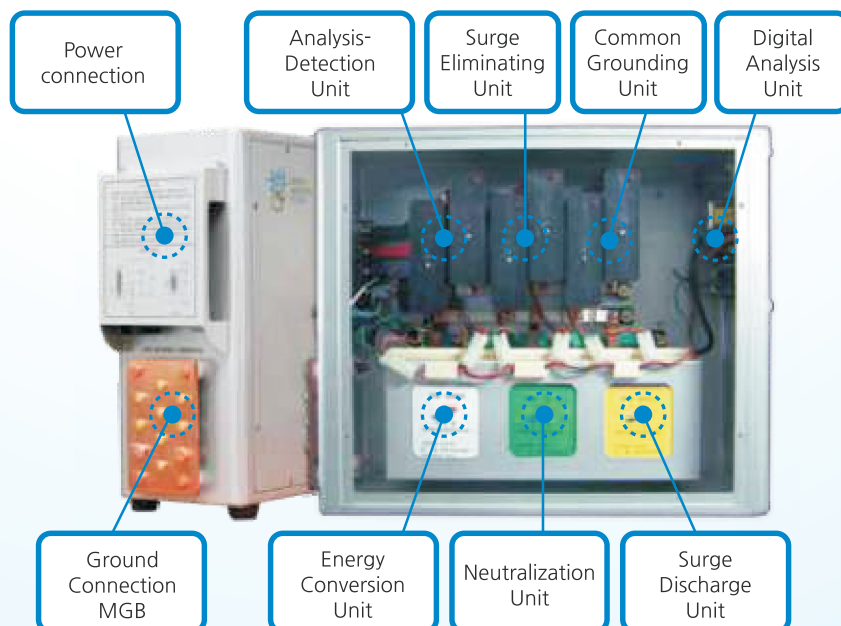
eca3G makes EQUI-POTENTIAL environment of all the equipment and conductive parts etc, which improve earthing resistance also.

eca3G provide **INTEGRATED SURGE PROTECTION** to be able to connect max **20** ground points(LM model).

○ **eca3G** Installation configuration



○ **eca3G** Component Units



especially for advanced networked electronic IT based systems

Since 1999, <GROUND Co.,> has provided total lightning protection solution pursuing 100% perfect protection, and has implemented remarkable successful performances with 99.88% protection rate for 16years mostly for National Security Facilities. PL insurance has been provided to the clients together with highly credible technology and further satisfaction.

Environment for Lightning protection is changed as below, so should adopt different concept of lightning protection.

- Most of electronic, communication, data systems are connected under network
- IC chips become high integrated level with very thin internal circuit which is very weak from surge intrusion, and damaged short circuit status could not be seen from outside, Modern systems adopt Automation operation which adopt many IC chips, and will have more troubles from lightning surge intrusions.
- Global warming occurs more frequent lightning, multi-stage lightning (not simple single lightning) which normal surge protective device could not care.
- Near-by direct lightning affects your systems under GPR effect (Ground Potential Rise) which is shown very frequently at out-door or isolate buildings or isolate facilities.

eca3e will provide ideal perfect lightning protection with integrated surge protection for your systems in the protection zone, common grounding, equi-potential function, surge elimination via energy conversion function, and does not require grounding rod and low grounding resistance, targeting perfect lightning surge protection for advanced networked systems.

eca3e will provide perfect protection solution for following environment.

- Networked, Automated, Data communication systems which require integrated lightning surge protection.
- Rocky, mountain area where could not get low grounding resistance for systems.
- Mobile Tactical vehicles which have difficulties to install grounding rod.
- Isolate/separate systems in the field are easily exposed from GPR (Ground Potential Rise)
- Frequently surge damaged sites which could not find perfect protection solution



Smart On-line Grounding resistance Monitor



Site picture



Display screen



APP interface

Description Description

- 3-point test method to test the grounding resistance, able to achieve the tested resistance by On-line software and APP also on site.
- Alarm trigger value can be set by push button, with audible and visual alarm and interval time of auto-test can be set too.
- Through On-line monitoring system can indicate the tested grounding resistance, grounding voltage, lightning intensity and number, grounding wire break or not, environmental temperature, environmental humidity and history record etc.
- Applications able to remote test the grounding of building, power transmission pole, underground mine equipment, petrochemical industry, communication base station, electricity converting and transformer station, railway facilities electric installation etc.