

CCCCC Digital Earthing System

US Patent No 7,652,865 B2

Earthing Device which not need to be buried in Ground

- Proven at 4000+ National Security sites for 18 years
- Registered at US Army Foreign Technology Database(GSTW)



Energy Conversion Apparatus 3rd Generation

- >>> Total Lightning Protection(Targeting 100% protection)
- >>> Provide Equi-potential, common grounding function (near zero N-G Potential difference assured - below 0.2V)

4. Turkey Meteorological

12. Malaysia Airforce FIR

- >> Patented technology(USA, PCT, Korea)
- Digital Grounding Apparatus
- Need not additional grounding rod
- Need not low earthing resistance
- Grounding without burying in ground
- Multi-Pulse lightning protection design

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Protect PCB, IC-Chip, Electronic component, Digital ICT devices & Sensors

Changes of Lightning protection environment

- 1. Multi-pulse lightning become 70~80% of recent lightning
- 3~4 strikes in a second at same lighting strike path
- 2. More Semi-conductors (IC Chips) are used for advanced Digital, Network system
 - 88.3% of unknown failures of electronic equipment caused by surge
- 3. Networked electronic, digital, communication, IT equipment
 - Reference potential (neutral), TN grounding become important
- 4. Most damages of electronic equipment by indirect lightning
- Most damages from Reverse surge, Ground Potential Rise, NOT by direct lightning,
- 5. N-G potential difference affect functions of advanced IC chips
- MRI scanning image distortion. CNC Lathe signal error, Data input error at data center

<eca3G> is specially designed for perfect lightning protection under above environment.

ecale Overseas Performances



1. Brazil Vaccine Lab



5. India Airport Glide



2. Brazil 4G Biosite





3. Indonesia Critical Communication



6. India BSNL



7. India Police Station



10. Malaysia Police

Microwave

9. Malaysia Airforce

Radar Station

11. Malaysia Police NOC



13. Telekom Malaysia



14. Thailand Army



15. Thailand Navy

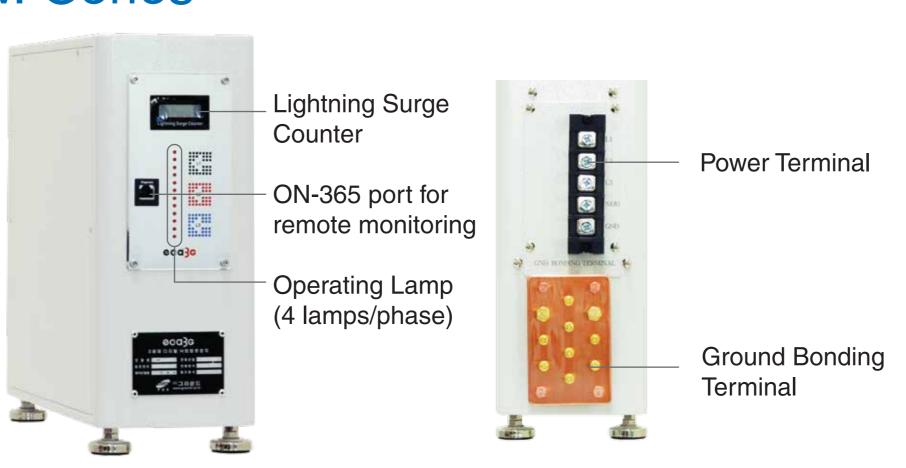


3. Malaysia Airforce Localizer station



16. Thailand border surveillance

LM-Series



LP-Series



TM-Series



ON-365 port for

Lightning Surge Counter



(3 lamps/phase)

TNC-P

Lightning Surge

Operating Lamp

(4 lamps/phase)

ON-365 port for

remote monitoring

Counter

