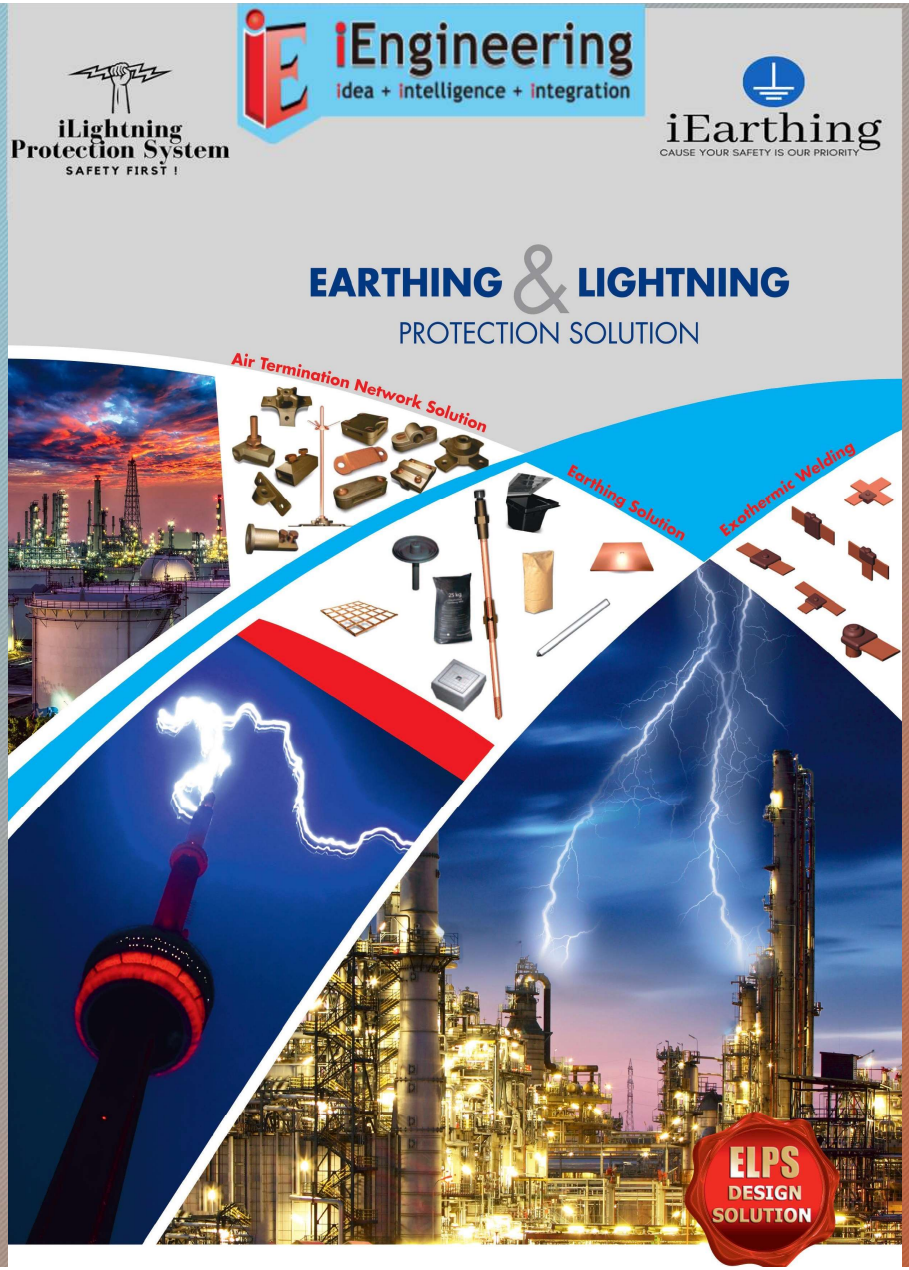
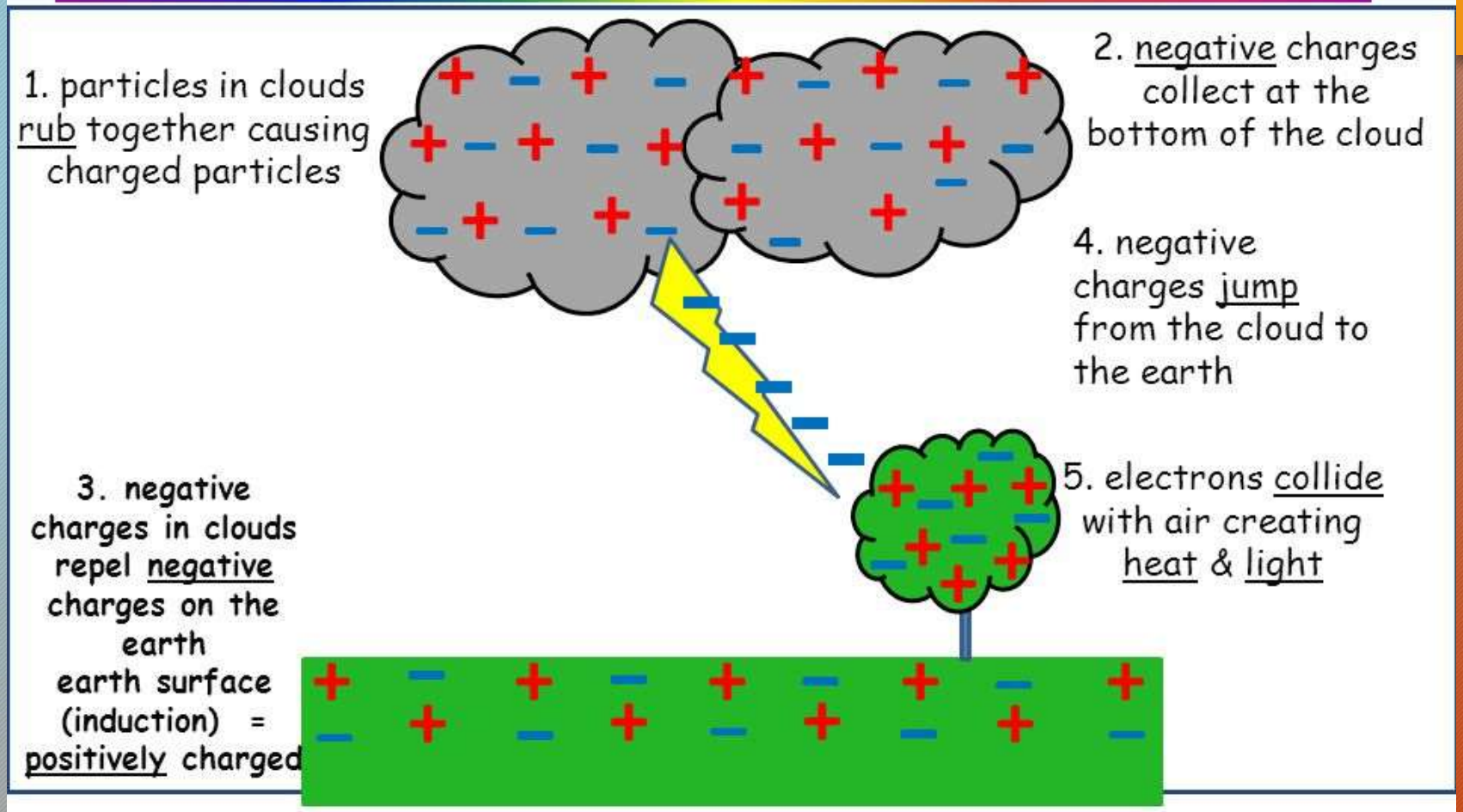

iLightning
Protection System
SAFETY FIRST !
iEngineering
idea + intelligence + integration
iEarthing
CAUSE YOUR SAFETY IS OUR PRIORITY
EARTHING & LIGHTNING
PROTECTION SOLUTION
Air Termination Network Solution
Earthing Solution
Exothermic Welding
ELPS
DESIGN
SOLUTION

Lightning Protection System

Lightning


1. particles in clouds rub together causing charged particles
2. negative charges collect at the bottom of the cloud
4. negative charges jump from the cloud to the earth
5. electrons collide with air creating heat & light
3. negative charges in clouds repel negative charges on the earth
earth surface (induction) = positively charged

Product Range - Earthing

- G.I. / Copper Earthing Strip
- G.I. / Copper Earthing Plates
- G.I. / Copper Wire
- Chemical Earthing (GI,Copper,Copper Bonded)
- Backfill Compound
- Digital Lightning Strike counter
- FRP Earth Pit Cover
- All Earthing Accessories Like Clamps and Bonds,Earth Bar with Disconnecting Link ,Earth Point with Prewelded Tail,Crimp Connectors ,6,3 ,8 Shape Connectors

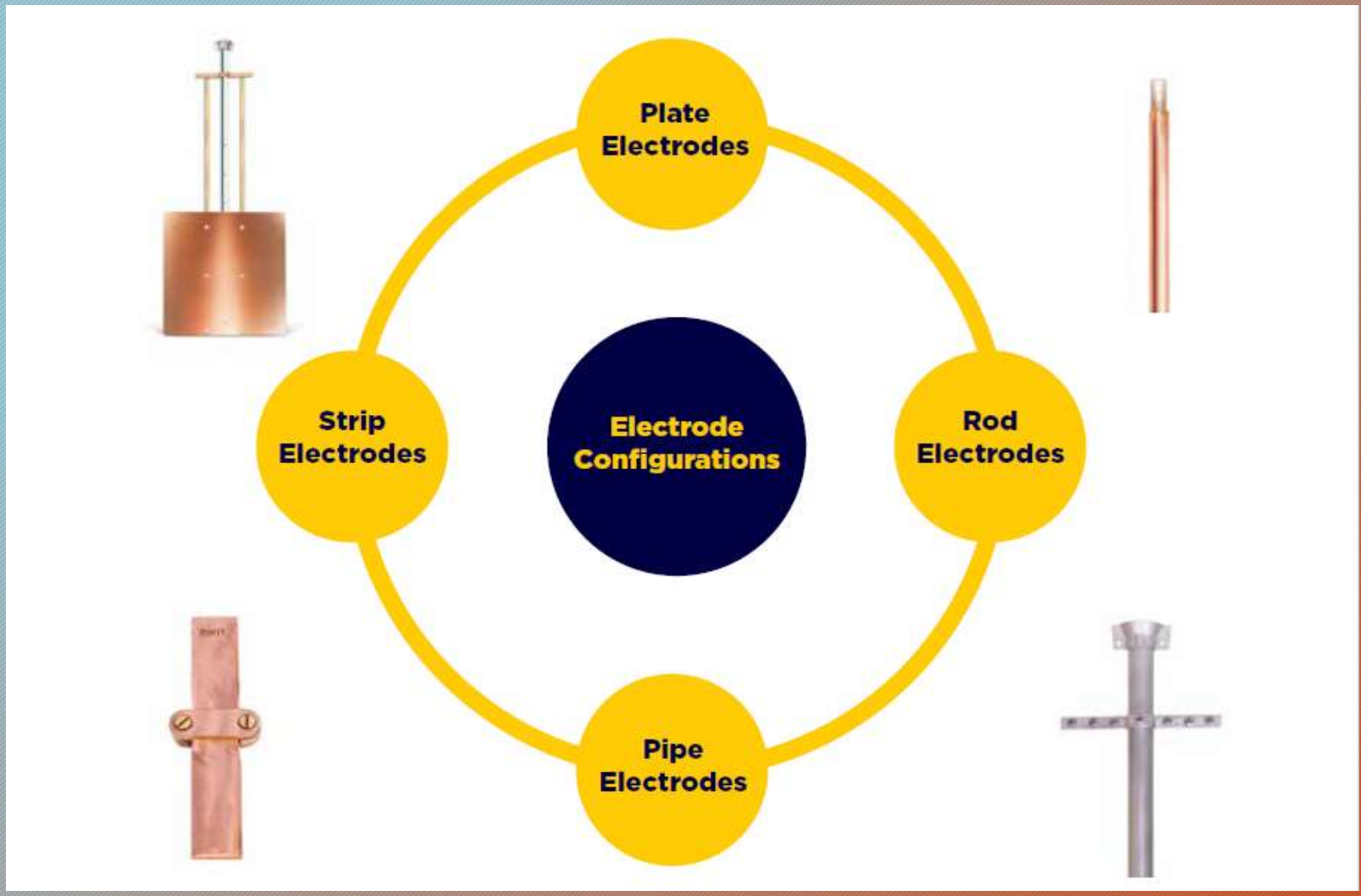
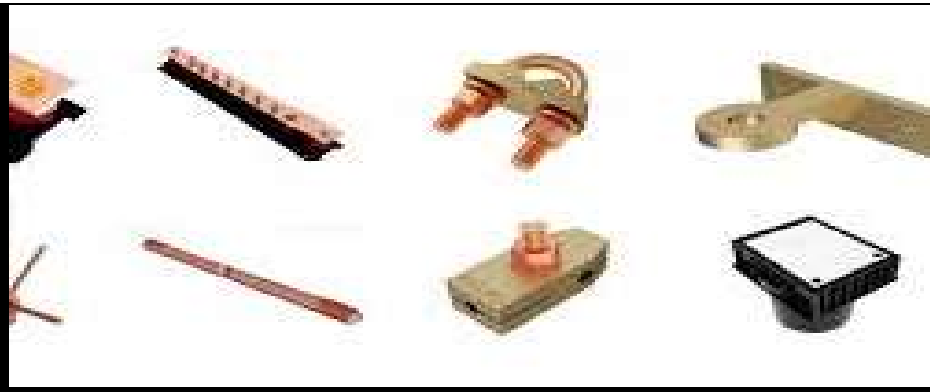
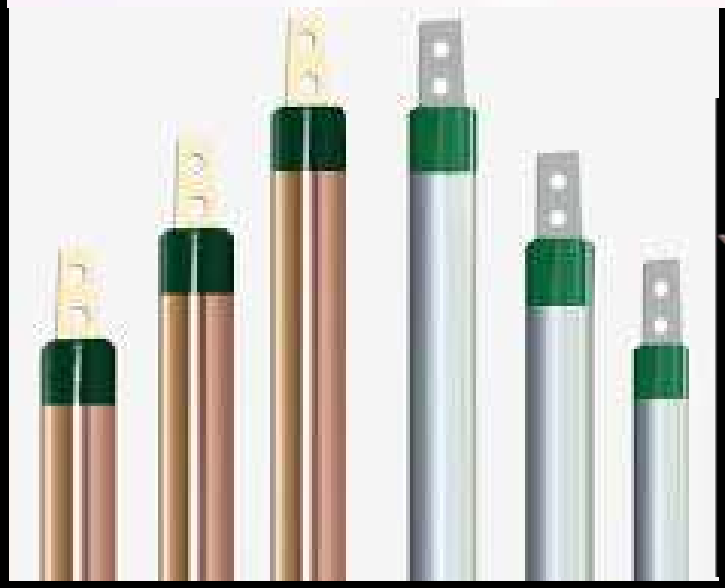
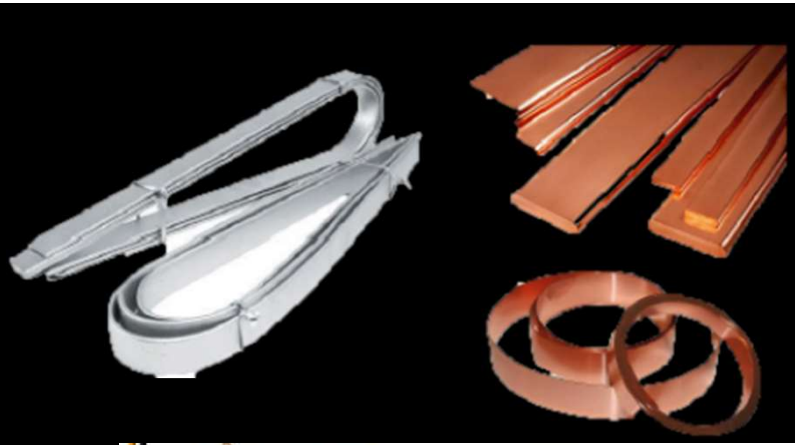


Plate Electrodes
Strip Electrodes
Electrode Configurations
Rod Electrodes
Pipe Electrodes








25Kg
EARTHING

Maintenance Free Earthing and Accessories

Product Range - Lightning Arrester

- Road Gap Arrester
- Sphere Gap Arrester
- Horn Gap Arrester
- Multiple-Gap Arrester
- Impulse Protective Gap
- Electrolytic Arrester
- Expulsion Type Lightning Arrester
- Valve Type Lightning Arrester
- Thyrite Lightning Arrester
- Auto Valve Arrester
- Oxide Film Arrester
- Metal Oxide Lightning Arrester

ESE Air Terminal

Features and benefits

- Blunt tip – To strengthen the electric field energy at the tip of the air terminal
- Stainless steel 316 grade as primary air terminal to ensure
  - sufficient mechanical strength,
  - higher current carrying capacity,
  - excellent corrosion resistance,
  - high melting point
  - Long life.
- Secondary Air terminal made of SS 304 grade flats to capture side flashes occur during lightning event.
- Electro-mechanical device with no external power supply.
- Protection radius of
- **ESE air terminal is tested and certified as per NFC 17-102/2011 for**
- Advanced triggering time, l Short circuit test and
  - Environmental test (salt mist & humid sulphur test) l
  - Mechanical dimension test.

Lighting Protection System

Functions of an external lightning protection system

- Interception of direct lightning strikes via an air-termination system
- Safe discharge of lightning current to earth via a down-conductor system
- Distribution of the lightning current in the ground via an earth-termination system

Functions of an internal lightning protection system

- Prevention of dangerous sparking in the structure by establishing equipotential bonding or keeping a separation distance between the LPS components and other electrically conducting elements.

Lightning equipotential bonding

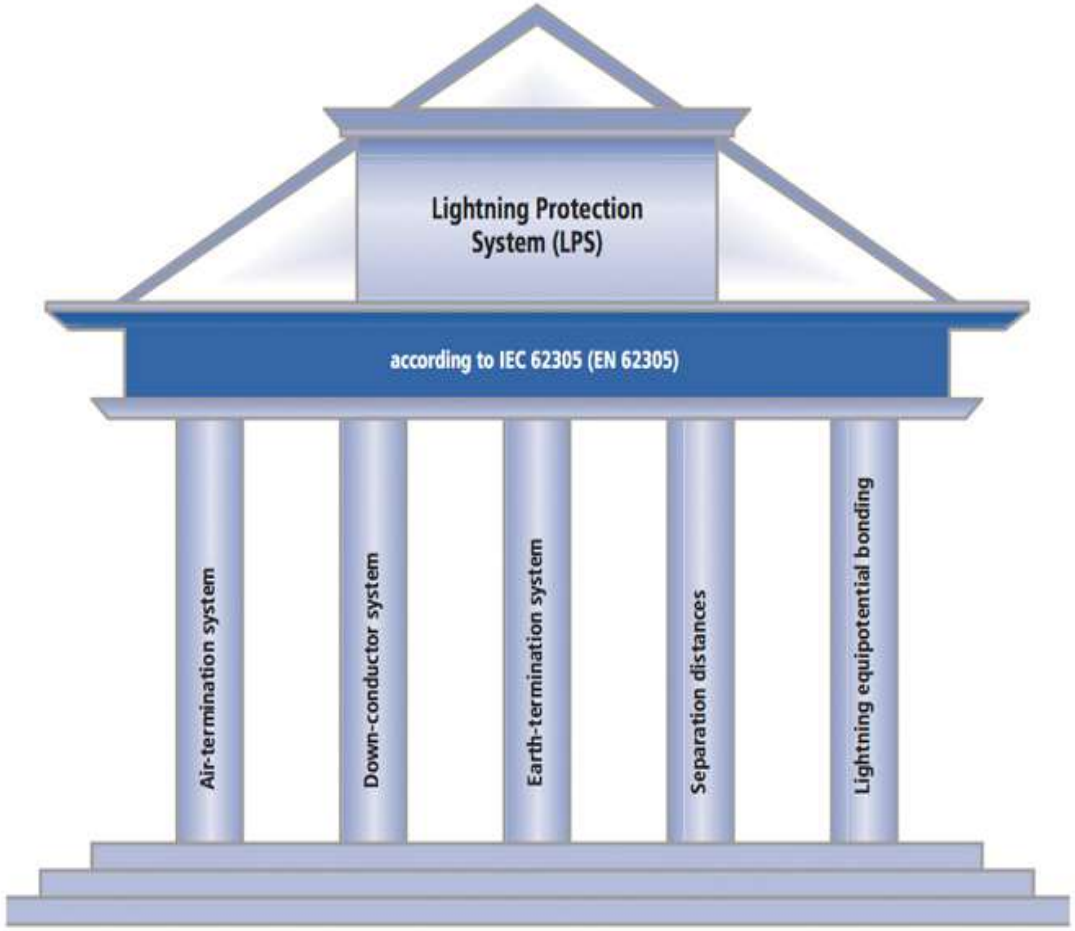
- Lightning equipotential bonding reduces the potential differences caused by lightning currents. This is achieved by interconnecting all isolated conducting parts of the installation by means of conductors or surge protective devices.

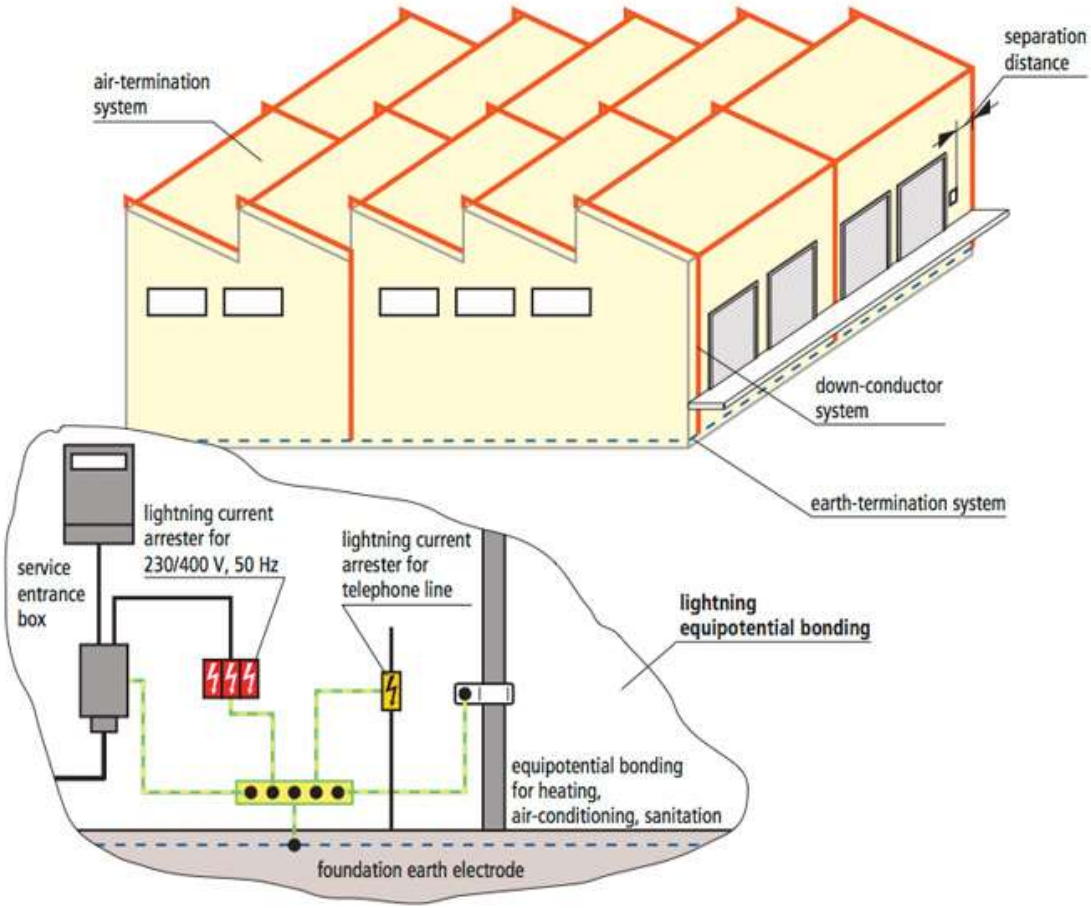
Design Considerations for Earthing Conductors Selection

Earthing conductors material and diameter selection

1. We do Conductor sizing calculations as per IEEE 80: 2013.
2. Also, if any local standard provides any guidelines/ recommendations, we can use that (ENA EG1 or ENA EG 0 for grounding design)

3.Standards also provides guidelines on minimum spacing between Earth rods (usually spacing is kept twice the length of rod)


Lightning Protection System (LPS)
according to IEC 62305 (EN 62305)
Air-termination system
Down-conductor system
Earth-termination system
Separation distances
Lightning equipotential bonding


air-termination system
separation distance
down-conductor system
earth-termination system
service entrance box
lightning current arrester for 230/400 V, 50 Hz
lightning current arrester for telephone line
lightning equipotential bonding
equipotential bonding for heating, air-conditioning, sanitation
foundation earth electrode

EMPOWERING YOUR SAFETY THROUGH US

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