

THINK ELECTRICAL
THINK JEF

JEF[®]

COMPREHENSIVE LIGHTNING PROTECTION

PRODUCTS & SERVICES

Lightning is a natural phenomenon that involves a very high quantum of energy. Lightning strikes may occur in both highly populated and rural locations. This endangers human lives, buildings, and equipment. Lightning damages structures, equipment, and data, causing millions of rupees in losses. Lightning cannot be prevented. Effective and reliable protection is the only solution.

LIGHTNING RISK MANAGEMENT

The concept of Risk Management is to keep risks at manageable or tolerable levels. The risk assessment takes account of various types of risks like loss of human life, service discontinuity, cultural heritage, economic value of structures and its associated loss.

IS/IEC 62305-2, provides a detailed procedure for lightning risk management and it presents a tolerable limit of risk. It is to determine the actual risk and to evaluate the protection methods required to reduce the actual risk to be equal to or lower than the tolerable risk.

The objective of this exercise is to establish whether lightning protection is required and if so, to select the suitable level of lightning protection. Some of the risks like loss of cultural heritage, human life etc., can never be assessed in terms of monetary value. So, it is always advisable to go with highest level of protection.

A lightning protection designed as per this standard greatly reduces risk of damage, by bringing down the risk to a level below the tolerable level as given in the standard.



ABOUT US

PARTNER WITH LEADING EXPERT IN ELECTRICAL ENGINEERING

JEF is an innovative company with Indian roots and an extensive international presence across 28 countries in the ASEAN, Middle Eastern, African and European regions. We have been the preferred vendor for prestigious projects in many countries with 3000+ global customers and an astounding 90% customer retention rate. With over 30+ years in the industry, we have a proven track record of successfully implementing several engineering solutions. Our services span the entire spectrum of electrical engineering from low, medium to high voltage and extra high voltage.

Over the last couple of decades, JEF has supported organizations across a range of industries to help ensure the safety of their manpower and reliability of their systems. With us you can always expect a technology-driven approach. We have several innovations, patents, and industry firsts which have made us a preferred partner for customers.

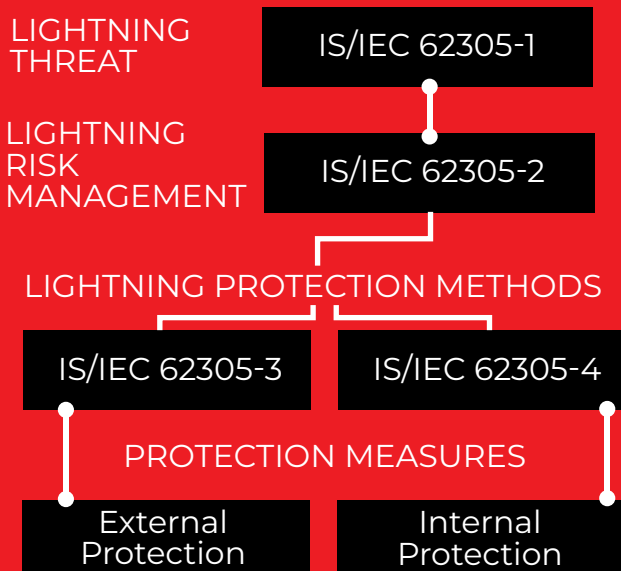
OUR OFFERINGS :

We offer comprehensive Lightning Protection Solutions:

- Site Survey
- Risk Assessment
- Lightning Protection System Design
- Grounding & Earthing design
- Structural Earthing Design
- Surge Protection Devices
- Inhouse Project Team to carry out Installation as per IEC Standards
- Supervision & Commissioning Services
- Lightning Protection System Adequacy Study and recommendations for existing structures

LIGHTNING PROTECTION STANDARD OVERVIEW

INDIAN STANDARD IS/IEC 62305 :2010
(SUPERSEDING IS 2309:1989)



DESIGN PROCESS

STRUCTURE TYPE / DIMENSIONS

- 1 Risk Assessment
- 2 Protection Level
- 3 Type of Materials
- 4 Air Termination Type
- 5 Down Conductor
- 6 Earth Termination
- 7 Internal Protection
- 8 Design, Drawing & BOQ

LIGHTNING PROTECTION SYSTEM

Air Termination & Down Conductor System

Equipotential Bonding System

Earthing System

Surge Protection System



1. AT with Mast



2. AT with Base



3. Cu/SS/Al Round Conductor



4. Conductor Holder - Polyamide



5. Cu/SS/Al Cross Splicer



6. Straight Splicer



7. Expansion Piece



8. SS Strip Holder



9. Test Link



10. GI Strip



11. Earth Pit



12. Surge Protection Devices - SPDs



13. I-Beam Connector

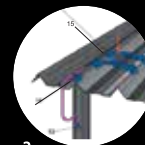


14. Standing Seam Clamp

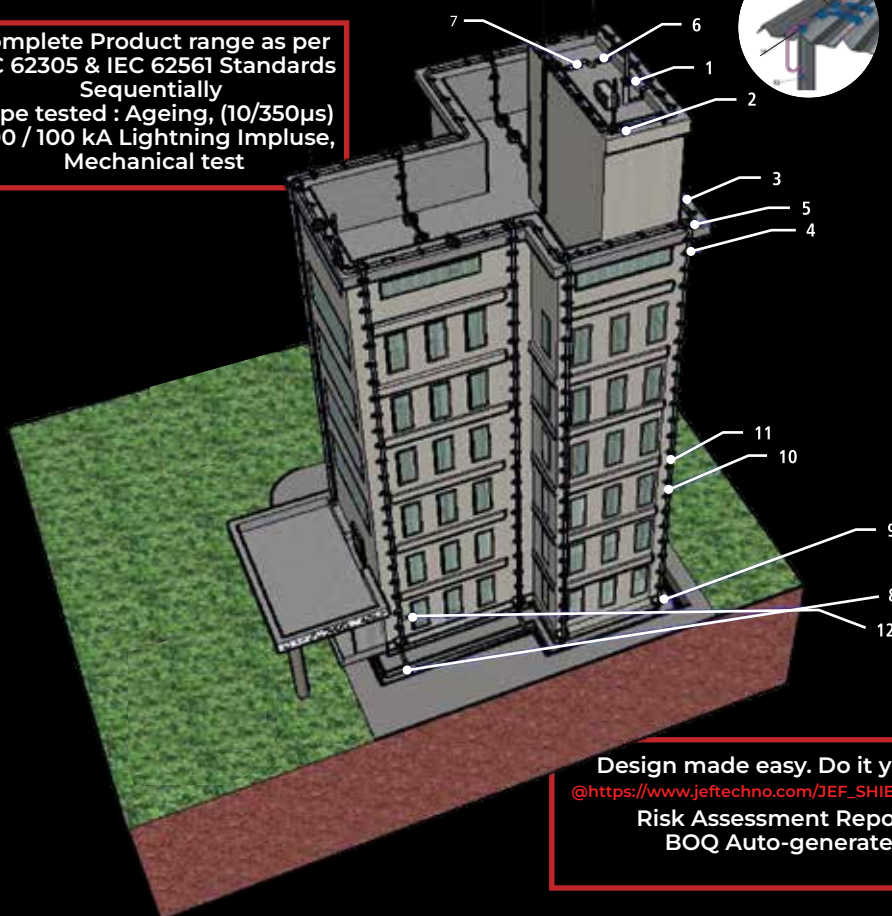


15. Standing Seam Vertical AT

Complete Product range as per IEC 62305 & IEC 62561 Standards
Sequentially
Type tested : Ageing, (10/350µs)
200 / 100 kA Lightning Impluse,
Mechanical test



AT arrangement on Metallic Roof



Design made easy. Do it yourself

@https://www.jeftechno.com/JEF_SHIELD/login.php

Risk Assessment Report &
BOQ Auto-generated

TRANSIENT SURGE PROTECTION

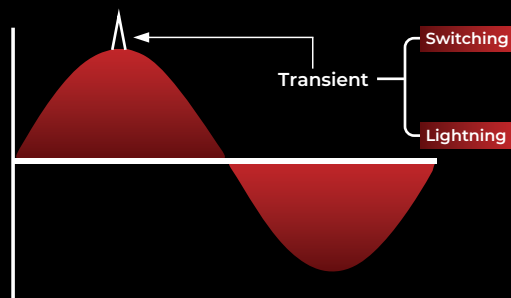
(INTERNAL LIGHTNING PROTECTION)

AVOID

PLC Program
Corruption

EPABX
Failures

Load Cell / Weigh
Bridge Failures



EFFECTIVE PROTECTION AGAINST TRANSIENTS

100s of models to suit specific applications on Power & Data Protection

LIGHTNING PROTECTION SYSTEM ADEQUACY STUDY

Failure of electronics and risk to personnel during lightning is commonly experienced by industry. We offer comprehensive study of existing LPS system for its adequacy and suggest augmentation measures as a retrofit to ensure compliance and safety. The study covers safety of structures, people, and equipment. We also design LPS systems for new facilities.

Application Areas | Renewable Energy | Data Centre | Warehouses | Pharmaceuticals | Airports | Stadiums | Railways & Metros | Commercial Buildings & many more.

600+ CERTIFIED PRODUCTS

Complete range of Type-tested LPS components as per IEC 62561(62305).
Sequentially Type tested for ageing, (10/350µs) 200/100kA Lightning
Impulse, Mechanical test.

JEF[®]



Straight Splicer



Expansion Piece



Air Terminal



Universal Connector



I-Beam Connector



Rebar Clamp



Strip Holder



Strike Pad



Standing Seam Clamp



Test link



Air Terminal Base



Earth Stud

Compounding
Plant

The Backfill Compound
Type tested as per
IEC-62561-7,
IS3043-2018, BS-7430 &
IEEE 80.

Indigenized
Earthing compound
Resistivity <0.12Ωm



UL LISTED
ELECTRODES



MAINTENANCE FREE
GROUNDING SOLUTION



EARTH ELECTRODE

- UL Certified
- Earth electrode conforms to IS 3043: 2018 & IEC 62305 | 60364 standards

QUALITY TESTED AS PER



IEEE



Earth Electrodes
(UL-listed)



LCOE
LABORATORIO CENTRAL OFICIAL
DE ELECTROTECNIA

Detailed Product list available on the request.
Internal Protection Systems Devices for Powerline & Communication lines
are also available.

BANGALORE

No. 1073, K.R. Square, 15th Cross,
30th Main, Banashankari,
Bengaluru - 560070.

HOUSR

Plot No. 16, D1 and 16D2, SIPOT Industrial
Park Phase-II, Hosur, Krishnagiri District,
Tamil Nadu - 635126



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