

### **Company Profile**

- · Founded in Germany in 1910.
- Most reliable & trustworthy partner for Lightning Protection, Surge Protection and Earthing worldwide.
- · Presence in more than 70 countries.
- · Invented first SPD of the world.
- · More than 4000 devices and components.
- Unique lightning test laboratory for 400 KA 10/350 microseconds - Accredited by Geman Accreditation Body DAKKS.
- Protected Multiple Oil & Gas Refineries, LPG Bottling Plants, and Marketing Terminals (IOCL, BPCL etc) in India
- · Protected More than 3,00,000 Telecom sites in India.
- Protected several renewable energy plants.
- Prestigious Projects Indian Parliament, AIIMS, Indian Railways, Central Secretariat, PM Office, MAHSR, AAI, Kolkata Metro, IOCL, BPCL, GAIL HPCL, etc.
- Solutions as per IS/IEC 62305, NBC -2016, OISD-180, IS/IEC 61643, IS 3043, IEEE 80 standards in INDIA.

















## **DEHN Stages of Development**

### Installation

- · DEHN is an installer
- In the 1920s
- First lightning protection and earthing products

#### Component Manufacturer

- DEHN's business is the mechanics of earthing and lightning protection and its installation
- DEHN invents surge protection in electrical engineering

#### Surge Protection

- DEHN's business increasingly becomes electromechanical
- DEHN 3.0 strives for internationalisation and campaigns for surge protection to become standard

#### Solution Provider

- DEHN commits to digitalisation in 2016 and transforms itself into the globally leading solution provider in the field of lightning protection and protective systems
- New business models, services and components

DEHN 1.0

1910

DEHN 2.0

DEHN 3.0

DEHN 4.0

**DEHN 2025** 



## **Lightning Protection**

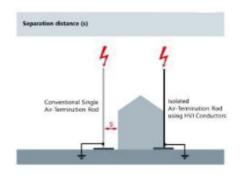
### IS/IEC 62305 - Protection against lightning

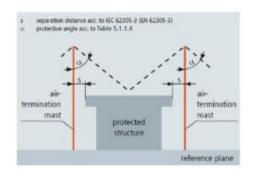
Part 01 General Principles Part 02 Risk Management Part 03
Physical Damage
to Structures
& Life hazard

Part 04
Electrical and
Electronics system
within structures

## **External lightning protection system**

- · Air Termination Angle of Protection, Rolling Sphere or Mesh Methods.
- Down Conductor with proper separation distance
- · Foundation Earthing, Type A or Type B earthing







# ELP methods: Rolling sphere radius, protection angle, mesh size and typical preferred distances between down conductors

	Protection method			Typical
Class of LPS	Rolling sphere radius r [m]	Protective angle α	Mesh size w [m]	down conductor spacing [m]
T.	20	α° 80 70 60	5 x 5	10
11	30	50 40	10 x 10	10
Ш	45	30 20 10	15 x 15	15
IV	60	0 2 10 20 30 40 50 60 h [m]	20 x 20	20



## **Type 1 Powerline Surge Arresters**









### Key Features of Type 1 Combined Lightning and Surge Arresters

- · Low let-through energy
- Spark-gap-based combined lightning current and surge arrester
- Maximum system availability due to RADAX Flow Technology offering follow current limitation
- Discharge capacity up to 100kA (10/350 μs)
- Operating state/fault indication by indicator flag in the inspection window
- Low Voltage Protection Level
- Vibration and shock-tested according to EN 600068-2
- Short Circuit handling up to 200 KA peak
- No need of backup fuse even for high rating transformer

# Type 2 / Type 3 Powerline Surge Arresters









### Key Features of Type 2 and Type 3 Surge Arrester

- Prewired complete unit tested for 8/20 µs surges
- Energy coordination with other arresters of the Red/Line product family
- High discharge capacity due to heavy-duty zinc oxide varistors / spark gaps
- High reliability due to "Thermo Dynamic Control" SPD monitoring device
- Vibration and shock-tested according to EN 60068-2

### **BLITZDUCTORconnect**



### Key Features of BLITZDUCTORconnect

- Slim 6mm width, modular design, easy maintenance.
- · Local indication & remote health monitoring.
- No signal disruption during faults.
- · Tool-free polarity protection & maintenance.
- Lightning current carrying capability of 1.5 kA provides optimal system protection
- secR module locking and fail-safe function ensure high system availability.



# Communication / Data Line Surge Arresters



Pluggable DIN Rail Mounted Arresters (BLITZDUCTORconnect Modular)



Compact DIN Rail Mounted Arresters (SD2, RK series)



Arresters for LSA Technology and Coaxial Connection



BLITZDUCTOR XT -Protection of Signal Lines & Terminal Equipments



Arresters for Field Devices



Arresters for Terminal Connection



Arresters for Data Networks & Ethernet Applications



Arresters for Protecting Intrinsically Safe Measuring Circuits

# **Advanced Engineering Services**



Lightning Protection Adequacy Study and Design

Earthing System Health Assessment and Audit



Enhanced Power Quality study & Analysis



Electrical Arc Flash Study



Prospective Fault Current Measurement







## **DEHNrecord SD EPMS**

### Earth Protection and Management System





























### **Features**

data over a cloud.

- One touch IOT platform
- · Realtime monitoring with alarms & events
- · Intelligent diagnosis & data driven actions
- · Predictive Maintenance
- Enhanced safety & improved reliability
- True RMS measurement of all critical parameters

DEHNrecord SD EPMS is next generation Earthing Protection and Management System, which helps users to monitor the resistance of the Earthing system, neutral to earth voltage, earth integrity and leakage current on real time basis and records the trends of values with time-series

## DEHNterra & DEHNterra

### Green Backfill Earthing Compound











### Features of DEHNterra

- Tested for lightning currents for short and long duration
- · Green earthing material
- Non-corrosive and neutral in nature (pH ~7.0)
- · Fulgurites free earthing material
- Non-leachable solution for flood prone areas
- · Suitable for adverse climate conditions little bit of body text

DEHNterra is a fulgurites free, and green backfill earthing solution. The solution is critically synthesized to be compactable with a very good flow percentage value to ease out the installation of the earth pit. DEHNterra has been designed to increase the contact area between earth rod and inner wall of the earth pit.





#### Features of DEHNterrat

- · Earthing for critical applications
- · Load bearing material-Strength: upto 50 MPa
- · Low water requirement- Just 20% of the total solid
- · Less permeable to chlorides and Sulphur present in the environment.
- · Maintenance-free Earthing
- · Portable Earthing material
- ROHS and REACH tested









ISG / Surge Diverter

DC - Decoupler

**HVI Conductor** 

# Tested Components - Reliable for Years



# Range of Safety Devices & Protection Gears



Earthing and Short-Circuiting Devices



Arc Fault Protective Hood and Suit



Voltage Detector





Hedge Engineering-The Authorized dealers for Dehn India in the Kerala Market Phone: 9633355645/9539509787

## **Our Services**



Lightning Protection



Surge Protection



Earthing



Safety

## Contact

DEHN India Pvt Ltd.



+91-124-400-7680



info@dehn.in



www.dehn.in



Plot no. 283, Sector-7 IMT Manesar, Gurugram, Haryana-122050

# Our Representatives

**Head Office** 

+91 9810966384

North

+91 9810611139

East

+91 9810611074

West

+91 9870192770

South

+91 9513302323

**DEHN** protects. Two Words, One Promise.

