





## **About us**

We, Brown Electrical Enterprises at 2759/A-5, second floor, Karishma, Kausalya Nagar, Elamakkara P.O. Ernakulam 682026, Kerala, are operating in the Electrical Engineering field in India & Abroad for the past 12 years.

We are committed to provide unique solutions, implementing innovative practices and always completing projects in a professional, effective, efficient and focused manner.

We are the Authorized Channel Partner for ABB India Ltd, for MV/HV products in Kerala.

We, as an organization built on best cutting edge technology & infrastructure to handle the above jobs as per customer need.

Our Vision is to provide high quality Services & products to our clients, within reasonable cost & time  $\,$  and with special focus on



safety, so as to achieve "Total Client Satisfaction" & Client loyalty to our products and services.

We also believe in continual Improvement & First Time Right & Minimal re work in our products & services offered to our clients.

Our Service activities include supply, Installation, testing, commissioning of following LV, MV&HV Products.

HV Switchgear, MV Switchgear, Capacitors & Filters, Spare & Consumables, Distribution Transformers Extensions, Upgrades & Retrofits, Motors & Drives, Grid Automation ESE Lightning Protection System.

# **High Voltage Products**

ABB offers a comprehensive range of high-voltage products up to 1200 kilovolts AC and 1100 kilovolts DC that help enhance the safety, reliability and efficiency of power networks while minimizing environmental impact..

## Air-insulated switchgear (AIS)

ABB focuses on the continual development of new technologies to increase the eco-efficiency, availability and reliability of AIS substations products and have a century of practical experience to rely on. AIS primary substation equipment contains of a portfolio up to 1200 kV including live tank circuit breakers (LTB), dead tank circuit breakers (DTB), instrument transformers, disconnectors, surge arresters, monitoring and controlled switching.

#### Gas-insulated switchgear (GIS) 72.5 - 1200 kV

Gas-insulated high-voltage switchgear (GIS) is a compact metal encapsulated switchgear consisting of high-voltage components such as circuit-breakers and disconnectors, which can be safely operated in confined spaces. GIS is used where space is limited, for example, extensions, in city buildings, on roofs, on offshore platforms, industrial plants and hydro power plants.



# **Capacitors & Filters**

## Power factor correction using capacitors - advantages

Low power factor results in Reduction the Capacity of the system, Energy loss or distribution loss, Reduction of the terminal voltage at load end.

Capacitors enhance the utility of the power transformer and generator. Reduce the  $(I \times R)$  distribution loss in the line. Improves voltage at terminal of the load and good regulation. Reduces the electricity bill of the consumer.









# **Extension, Upgrades and Retrofits**

We enhance your apparatus with the latest technologies to increase performance and productivity: Retrofit, Upgrade

New generation components increase the operating efficiency and extend the equipments' life. ABB offers low-risk migration strategies for its range of products to ensure maximum return on investments.

ABB service ensures the complete success of the upgrade, retrofit or migration in close cooperation with the customer.

# **HV/MV Spare and Consumables**

The extensive spare part portfolio of HV /MV Service covers installed bases from older product versions to the latest versions currently manufactured. Our global network ensures you always receive the right part no matter where you are located in the world.

Be it scheduled maintenance or emergency situations, the use of original spare parts is the most economical choice, which effectively protects the operational reliability of your facility. ABB maintains an extensive inventory of spare parts.

Spare parts may be individual equipment items or complete and full-range package deals for your inventory. Based on the specific equipment spectrum in your plant, we will make suggestions for an optimal combination of spare parts packages.



## **Distribution Transformers**

ABB offers a complete range of power and distribution transformers designed to grant the reliability, durability, and efficiency required in utility, industrial, and commercial applications. ABB's liquid-filled transformers are manufactured in accordance with the most demanding industry and international standards. Transformers can be used for indoor or outdoor applications and can be provided with off-load and on-load tap changers.







## **Grid Automation**

ABB network management and utility communication technologies enable the evolution of smart grids by providing real-time management of transmission grids, distribution networks, power plants and energy trading markets.

These technologies collect, transmit, store, analyze and reliably communicate critical data from thousands of data points across power networks and over large geographical areas. Large-scale integration of renewable resources, regulation of two-way distribution grids and long-distance transmission would be impossible without these technologies.

Wide-area monitoring improves performance of network management systems by enlarging the area the systems can see. Satellite communications can quickly access information from neighboring grids, and use it to prevent the development of widespread faults.



# **MV Switchgear**

Air insulated switchgear - Medium Voltage

Classic and intelligent air insulated switchgear solutions and services for your every need up to 46 kV IEC and 27 kV ANSI

Gas insulated switchgear - Medium voltage

Gas insulated switchgear solutions for primary and secondary distribution to suit every application up to 40 kV

IEC/ANSI indoor vacuum circuit breaker Vmax

Medium Voltage circuit breaker with mechanical actuator (spring mechanism) for primary distribution, up to 17.5 kV, 2000 A, 31.5 kA.



## **Motors & Drives**

We offer AC and DC Motors & Drives designed for flexibility, productivity, and ease of use. Our motor control solutions handle both low voltage and medium voltage applications, with a wide range of power ratings. With a broad selection of hardware, software, safety, and packaging options to meet the demands of most applications. A variety of motors designed for optimum variable speed performance and service life round out our offering.



# **ESE Lightning Protection System**

Ensuring maximum power quality, power reliability and asset protection becomes more important than ever as s single lightning strike can create a loss of revenues and resources from down time. Effect of Lightning strikes does become catastrophic when it produces an entire shutdown or cause severe damages to electrical installations and equipment's at a building site.

## E.S.E. Lightning Arrester

Extending into the spectrum of lightning arresters, we bring forth an impeccable quality of E.S.E. lightning arrester for protecting structures such as high rise buildings from damage by intercepting flashes of lightning. These arresters transmit the lightning current to the ground, which in turn ensure the total protection of the building. Manufactured by implementing latest technology, these arresters have the capability of withstanding toughest weather conditions.

## Working Principle

The basic purpose of the ESE Lightning Arrester is to produce ionization directed at the cloud so that the electrical charge in the

lightning strike can be channeled from the very beginning. It cor the effect of the descendant tracer.

## **Advantages**

- Implemented with latest technology
- Non-electronic type
- 100% effective discharge capacity
- Carries lightning current without resistance
- In compliance with the industrial standards
- Technical qualities remain unaffected after each strike
- No external power required
- Low maintenance cost
- Easy to install
- Resistant to both corrosion as well as high temperature
- Can withstand adverse weather conditions

## **Application**

The application of the E.S.E. Lightning Arrester is to provide the highest levels of lightning protection to the buildings from lightning. The ESE Lightning arrester is designed and installed as per the application requirement parameters, which includes dimensions of the structure, required level of protection and terminal type.

Components used in the implementation of E.S.E. Lightning Arrester Technology:

The components that are used in ESE Lighting Arrester includes: Air Terminals, Down Conductor, Lightning Strike Counter, Earthing.



**HV Switchgear** 

**MV Switchgear** 

**Capacitors & Filters** 

Spare & Consumables

**Distribution Transformers** 

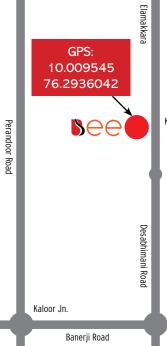
**Extension, Upgrades & Retrofits** 

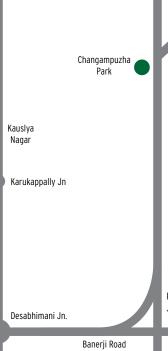
**Motors & Drives** 

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# **Brown Electrical Enterprises**