





MM Enterprise

Authorized Distributor of General Electric

Numerical, EMT Relays & System Automation products www.ss-corporationbd.com www.mm-enterprisebd.com

About us

MM Enterprise is a renowned power generation and distribution equipments supplying company launched in Bangladesh since 1988. The core business of the company is to import, distribute, engineering procurement and implement turnkey projects. We participate in the local & international tenders as direct bidder and represent overseas principals as their local agent. We are dedicated to help clients to reach their visions of satisfaction firmly & timely by providing all kinds of technical & other services required.

Our Products encompass high international standards and state-of-the-art proven technology. Being highly attractive and competitive, our products are made by high quality premier industrial manufacturers.

We offer our clients to assist in design to product completion through selection of Original Equipment Manufacturers (OEM). We also provide different customized products and advanced technologies for power generation and distribution system.

The SS Corporation is a reputed, experienced and professional Electrical Engineering Company with a proven background in the areas of Testing & Commissioning of medium and heavy-duty Electricals in the Power and Transmission Sector.

The SS Corporation is a true independent service provider in the Energy sector, and a Company in the field of Testing & Commissioning, Engineering, Erections Supervision, Civil Supervision and Maintenance of Power-plants.

Vision:

Focus on all electrical activities and succed to benefit socity. We are comitted to achieving business and the financial goals while leaving positive imprint on the field.

Mission:

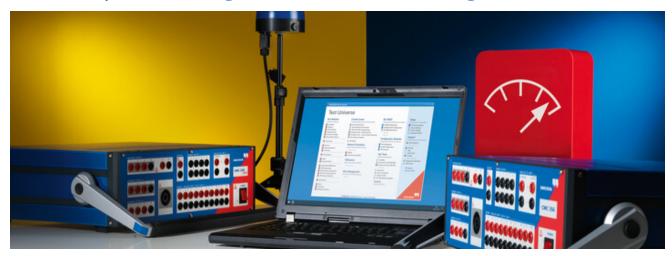
To be the nation's leading contracting company focussed on customers satisfaction. We seek to produce increased financial rewards and provide opportunities for growth and enrichment to the young talented engineers, striving for honesty, reliability and integrity within the company.

Value:

We provide clients with experiance, quality, dedication and professionaligm and as a result have become a leader an providing electrical services. We are lomitted to implementing the standard technologies and industry practices to provide our clients with the solutions needed for success in today's marketplace.

Field Services

Relay, Testing, commissioning, Services



Relay testing by Advance Numerical KIT Omicron CMC-356

Capabilities:

WE EXPERTISED ON FOLLOWING RELAYS

- Line Distance relay
- Line Differential relay
- Transformer Differential relay
- Motor/Generator protection relays
- Directional relay
- REF Relay
- Transformer/Motor/Generator
- Differential stability check
- Transformer REF stability check
- Bus bar differential stability check

■ Visual Inspection of Protection Relay Testing■ Mechanical Inspection of Protection Relay Testing



Make: ABB/AREVA/ALSTOM /GE/SCHINEDER/ Siemens/SEL//EE/ Comica/N-R/etc.

Power Transformer testing



Service Offer

- Dielectric Frequency Response Analysis [DFR]
- Sweep Frequency Response Analysis Measurement
- Capacitance And Tan Delta
 Measurement of Transformer
- Transformer Turns Ratio Measurement
- Magnetic Balance Measurement
- Excitation Current Measurement
- Insulation Resistance And Polarization
- Index Measurement
- OTI And WTI Meter Calibration
 Functional Checking Of Protection
 Devices Like PRV, Buchoze Relay,
 MOGOTI, WTI.
- Special Testing Kits for Winding Resistance in Transformers.
- SFRA
- All Kinds of Distributions, Generators & Power Transformers up to 520 MVA/400 KV.



Switchgears Testing



Gas Insulated Switchgears(GIS) Testing

We do complete Erection, Testing & Commissioning MV GIS



Service offer:

- Base Frame (Channel/ISMC) Supply & Installation
- Installation of Switchgear Panel & LV Chamber
- Coupling of Panels at Site
- Filling of SF6 Gas 114
- Checking of Dew Point/Purity of SF6 Gas
- Testing of Current Transformers
- Installation of Bus VTs & Line VT
- Testing of line VT's Bus VT'S
- Circuit Breaker Timing Test
- Contact Resistance (mV Drop test)
- Testing of Control Schematics/Interlocking's HV Testing of GIS & Cables
- Power Cable Termination Three Core & Single core

MV/HV Switchgears

We deal spares for following General Electric Items

■ GIS: SDA10 /88D10

■ Breaker: 3AF0143, OVCB

LV Switchgears

- Power Distribution Products
- Motor Control Products
- Electrical Installation



Circuit Breaker Testing



Circuit Breaker Testing is used to test both the performance of individual switching mechanisms and the timing of the overall tripping system. Circuit Breaker Testing is essential to ensure the safe and reliable performance of this key link in the power asset chain are always guaranteed.

OnLine Testing

- Partial Discharge Measurement (For All Switchyard Equipment)
- Thermography (For All MV/EHV Equipments)
- HISAC Swift (Scope) CB Operational Analyzer Kit Availble.
- Operations C, O, C-O, O-C, O-C-O.
- PC Downloading & analysis Software for CB'S

Off Line Testing

■ Insulation Resistance Measurement

 Dynamic Contact Resistance Measurement (DCRM)

 Static Contact Resistance Measurement (CRM)

Timing Measurement

■ SF6 Gas Dew Point Measurement

SF6 Gas Leakage Test

Vacuum Interrupter Test (VIDAR-Only For VCB)

Functional Check (Remote Trial



Instrumental Transformer Testing and Commissoning, upto 800kV



Desciption:

The importance of IT tests is often underestimated. Risks such as confusing ITs for metering and protection or mixing up connections can be reduced significantly by testing before initial use. At the same time, damages to the interior of an instrument transformer, caused for example during shipping, can be recognized easily. Also changes in an IT, caused for example by aging insulation, can be identified at an early stage.

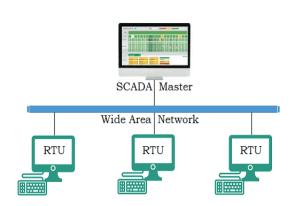
Applications:

- Ratio and phase accuracy
- Winding resistance
- Excitation characteristics (knee points)
- Composite error (ALF, ALFI, FS, FSi, Vb)
- Burden impedance
 - Transient CT classes and parameters (TPS, TPX, TPY and TPZ type CTs)
- Transient dimensioning factor (Ktd)
 - If missing/unknown CT type, class, ratio, knee point, power factor,
- Nominal burden, operating burden, primary and secondary winding resistance
- Remanence and residual magnetism
- Immediate good/bad evaluation
- Simulate different burdens and currents

Our test systems provide high-precision, automatic testing and assessment of CTs to IEC 60044-1, IEC 60044-6, IEC 61869-2, IEEE C57.13 and IEEE C57.13.6 standards; VTs to IEC 60044-2, IEC 60044-5, IEC 61869-3, IEC 61869-5, IEEE C57.13 and IEEE C57.13.6 standards; combined transformers to IEC 60044-3 and of IEC 61850 standards.

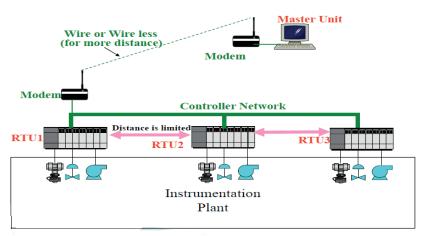
Automation Solution

Substation Automation System (SCADA)(SAS).



- MM Enterprise offers design, engineering, development of PC & Operator Panel based HMI & SCADA solutions for Substations, Switchyards, Power & Process plants.
- We provides Substation Automation System (SAS) solutions with modern state-of- art technologies comprising of various communication protocols.
- eg. IEC61850, IEC101, IEC103, IEC104, Modbus, Modbus TCP/IP, OPC etc.

System Architecture-Substation Automation



Service Offer

- Monitoring & Control of Existing substation by collecting Input, output, Analog data points from the field via RTU/Gateway
- Establishing Control & monitoring of various main station & substation from the centralized location to improve the quality & stability of the power system.
- Existing old station getting upgraded by installation of RTU, Local monitoring system, DCPS & Battery for the new RTU panels.
- Interconnecting Field signals with RTU transmitting the same to Master control center New SCADA system getting online.
- Preparation of engineering documents such as SLD. control room Layout, BOM and I/O List, cable schedule and adaptation schedule, as-built drawings in PDF / CAD format.
- Panel Erection, Cable laying and Termination for existing sub-station and new sub-stations
- Configuration, Testing and commissioning of RTU and obtaining SAT certificate from customer.

Our Product Range up to 800 kV

- i) Transformer up to 600 M VA
- » Power Transformer
- » Distribution Transformer
- » Dry-Type Transformer
- » Oil Reac tor
- » Dry-type Reac tor
- » Current Transformer
- » Voltage Transformer
- » Spares of Transformer



- ii) All type of Insula tors up to 800kV
- » Post Insula tor
- » Pin Insula tor
- » Disc Insula tor
- » Surge Arrester
- » Drop out Fuse Cu tout
- » Guy Insula tor
- » Shakle Insula tor



- iii) Nic kel Cadmium/VR LA Batteries up to 1550Ah
- » For Power Station
- » For Substation
- » For UPS Bank
- » For Industries
- » Spa res at Batteries
- » Capaci tor Bank



Product supply

Numerical Relays



- **■** Generatior Protection Relays
- **■** Transformer Protection
- **■** Lime Protection
- Bus Protection
- **■** Feeder Protection

Substation Automation Products



- Substation Automation & RTU
- Control Monitoring & Diagnosing
- Software For Substation Automation

Our Product Range

- x) Visual Solution for Indust ry and power Station
- » Thermal Imaging Came ra
- » Thermal Imaging System
- » Thermal Security Solution
- » Thermal Temperature Gun
- » Thermal Multimeter



- xi) Transmission / Distribution line construction Equipments
- » All types of accessories, fitting and equipments
- » Transmission Tower
- » Lighting Tower
- » Electricity Distribution Steel Pole
- » Hydraulic Cutter & Comp ressor
- » Chain Pull ey



xii) Indust ry / Substation / Power Station Oil & insulation Material

- » All type of Transformer Oil
- » Insulation Paper
- » Insulation P ress b rad
- » Oil Centrifuging Machine
- » Oil Testing Set
- » Transformer Moister Detec tor



Our Product Range

Xiii) Sa fety Tools

- » Hal mate
- » Sa fety Belt
- » Sa fety Di-Electric Shoes up to 80kV
- » Sa fety Gloves up to 80kV
- » Hot stick with accessories Up
- » Live line voltage detec tor
- » Arc face shield
- » Acc flash clothing
- » Fiberglass leader



Ethernet Switch



- Ethernet Layer 3 Switches / Routers
- Application Solutions
- Ethernet Layer 2 Switches
- Media Converters
- Serial Device Servers
- Cellular Routers
- Wide Area Networks/
 Private Wireless Networks / WiMAX
- Wireless LAN
- Accessories
- VDSL Modem

Short Circuit Indicator



- Feeder Condition Monitor
- Fault Passage Indicator
- Fault Sensor Indicator
- Fault Collector Gateway

Control & Relay Panels



We do supply for CRP panels upto 400kV Voltage level, for following feeder, Bays.

- Line Feeder
- Transformer Feeder
- Bus Reactor Feeder
- Line Reactor Feeder Buscoupler
- TIE Feeder (for 1/2 half breaker scheme)
- Bus Bar Protection Panel
- Aux BCU Panel
- Generator Protection and control panel

Our Product Range

iv) DC System

- » DC Panels
- » Batte ry Charger up to 2000A
- » Protection System
- » Spares of Chargers and Panels





v) B reaker

- » Vacuum type up to 800kV
- » Sf₆ Gas type up to 800kV
- » Air type up to 33KV
- » Spares of all type of B reakers



vi) Cont rol and Metering/Switchgear

- » Control Metering and Rel ay Panel
- » Switchgear up to 400kV
- » Different type of Rel ay



Our Product Range

vii) Cable and Conduc tor

- » Martin Conductor
- » Grosg rain Conduc tor
- » Under ground type power cable up to 400 kV
- » Submarine cable up to 220kV
- » Cable termination and jointing kit for all type of Cables



viii) Valve & Cooler

- » All type of valve for power station
- » Heat E xchanger
- » Complete cooler system cooler tower



ix) All type of Test Equipment Solution

- » Transformer Diagnostic test set
- » Circuit breaker analy zer
- » Mic ro Ohm Meter
- » Insulation Test Set
- » All type of hand hade measu rement instruments
- » All solution for Testing labo ratories



Our Engineering service

Our Technical and service partner from U.A.E DNJ ENERGY LLC.













ENGINEERING SERVICES

With its vast experience in the technical field and pool of talented expertise, the GROUP offers following Engineering services:

- Engineering Design support with ETAP software which includes harmonic analysis, Load Flow, Voltage drop and Short circuit studies, Protective Relay Settings and Coordination.
- Deputation of Engineering & Design support Engineers.
- Design Support for CT/VT sizing, Cable and termination schedule.
- SCADA and SCMS- Control and monitoring support for Turnkey projects.
- Project Management Consultancy for Power Projects.
- Control Protection and SCMS panels, LV Distribution boards Engineering.

Our Field services









TECHNICAL FIELD SERVICES

- Testing and commissioning services of Substation Equipment's from 400 KV to LV system.
- Deployment of Experienced Engineers for Factory Acceptance Test & Third Party Inspection.
- Operation and Maintenance of Power supply Equipment's.
- Installation of LV Power and control cable laying and cable trays inside substation and building premises.
- 33/11 KV Cable laying and 33 kV and 11 kV Cable Termination and joints.
- Residual Life Analysis (RLA) study for substation and Plants Equipment's.
- Consultancy services in area of diagnostic test, type test and life assess ment of HV equipment's.
- Deployment of DEWA, FEWA, ADWEA, ADDC and AADC approved Engineers for utility Substation projects.
- Project Management Support in availing Power Electrical NOC's from Gov ernment Entities.

TEST EQUIPMENT RENTAL SERVICES



We are supporting various projects in UAE and Middle East by renting out wide variety of highly reputed and branded testing equipment's. Our equipment's are calibrated and maintained as per manufacturer's recommendations.

- Secondary Injection Testing Equipment's Omicron 356, Omicron 256, plus series.
- Multifunction Primary injection test equipment's- Omicron CPC-100 and TORKEL 860.
- Primary injection test kits, HV Test Kits, Circuit breaker analyser, Contact resis tance measurement kit, Insulation Testers and CT Analyser's.
- DC battery load banks, DC source kit, Insulation tester, Variacs.
- Substation Equipment's test kit.

We are just one call away from you for availing prompt services of any type of Test equipment's.

List of TEST EQUIPMENT



Our Electrical Testing kits:

Sl. No.	Equipments	Make	Model
1	Three Phase Secondary injection Kit	Omicron	CMC 365
2	Primary injection Kit	Omicron	CPC 100
3	Current Transformer Testing Kit	Omicron	CT Analyzer
4	Circuit Breaker Analyser	Scope	HISAC Swift
5	Ten Delta Test Kit	Omicron	CPC 80
6	HV Insulation Tester	KYORITSU	KEW3125A
7	Transformerr Winding Resistance Meter	Scope	TRM 104
8	SFRA Test Kit	Omicron	Franco 800
9	Breaker Contact Resistance Meter	Scope	CRM 100B+
10	Breaker Timer Test Kit	Scope	Scot M3k+
11	Ohm Resistance Meter	Udayraj	TRT-27 Series



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