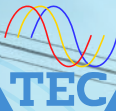


Tesla Electrical Company

TESLA ELECTRICAL COMPANY



TEC

**THE ONE STOP SOLUTION
FOR ALL ELECTRICAL
& AUTOMATION NEEDS**

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+971 6 525 1655

Company Overview

About us

TESLA ELECTRICAL COMPANY, an ISO 9001:2015 certified company, was founded with a vision to be a leading provider of comprehensive solutions in the field of Electrical Transmission & Distribution Systems, Substation and Process Automation.

Our primary goal is to offer End-to-End Engineering, Procurement and Construction (EPC) services, meticulously designed to meet the most stringent requirements. Our unwavering commitment to adapting and evolving ensures we meet the diverse and dynamic needs of our clients, prioritizing safety, efficiency, excellence and customer satisfaction—qualities that distinguish us in the industry.



Mission

Our mission is to enhance the organization's value by delivering projects that meet our Client requirements, with strict adherence to safety, international engineering standards, and an unwavering commitment to excellence.



Vision

We aspire to be the most trusted and innovative provider of Electrical and Automation EPC solutions, setting benchmarks in quality, safety, and sustainability.

TESLA ELECTRICAL COMPANY proudly serves a diverse range of industries, including:



Oil and Gas



Infrastructure & Construction



Petrochemicals



Airports



Power Plants



Marine



Water & Wastewater Treatment Plants



Hotels & Hospitality

CORE PROCESSES

Design

Our team, with over 30 years of field experience in Designing, Installation, Testing, and Commissioning of Electrical and Automation systems, Designs solutions that meets your specific project requirements while adhering to the highest industry standards.

Engineering & Programming

We specialize in handling challenging Electrical & Automation Projects through our Engineering & Programming Expertise. Our expertise extends to solving any complex engineering and programming to meet your specific requirements.

Retrofit & Replacement:

We offer retrofit solutions as well as complete replacements, ranging from individual control component to entire systems.

Procurement

Leveraging our extensive network of trusted suppliers, we ensure the procurement of high-quality materials and equipment at competitive prices.

Construction & Installation:

Our skilled technicians and engineers bring designs to life through construction and installation processes, ensuring reliability and longevity.

Testing & Commissioning:

We follow rigorous testing and commissioning procedures to validate that all systems operate flawlessly before handing over the project to our clients.

Training:

Our operation and maintenance training includes on-site practical demonstrations as well as remote training, ensuring comprehensive system understanding by the operators & maintenance team.

Troubleshooting and Repair:

We provide troubleshooting services for various electrical and automation components, and systems including but not limited to ACBs, VCBs, VFDs, soft starters and other control components. We offer repair service for the ACB, VFD, Electronic Boards, etc

Products

We offer an extensive range of products to meet your diverse electrical and automation needs:

- ✓ LV Switchboard/MCC
- ✓ MV Switchboard
- ✓ Capacitor Bank
- ✓ Resistive Load Bank
- ✓ DOL Starter Panel (Safe Area and ATEX)
- ✓ Distribution Board/Junction Box (Safe Area and ATEX)
- ✓ Automatic Transfer Switch (ATS) Panel
- ✓ Power and Distribution Transformer
- ✓ Process Control System
- ✓ SCADA System
- ✓ DDC control panel
- ✓ Standalone VFD Panel & Soft Starter Panel
- ✓ Power Quality Analysis & Disturbance Recording System
- ✓ Generator Control Panel
- ✓ Static Frequency Converter
- ✓ Electrical and Automation Spare Parts

Services

We also offer comprehensive on-site services for the supplied systems, including:

- ✓ Design
- ✓ Engineering and Programming
- ✓ Project Management
- ✓ Protection Coordination Analysis
- ✓ Installation (New, Retrofit, or Replacement)
- ✓ Testing (Complete System and Individual Components)
- ✓ Commissioning
- ✓ Operation and Maintenance Training
- ✓ Troubleshooting
- ✓ Repair Services
- ✓ Annual Maintenance Contracts
- ✓ Power Quality Analysis Study

ELECTRICAL & AUTOMATION EXCELLENCE

LOW VOLTAGE SWITCHBOARDS/ LV MCC

- ✓ FORM 2, 3 AND 4 CONSTRUCTIONS
- ✓ FIXED AND DRAWOUT TYPES
- ✓ CURRENT RATING UP TO **6300A**
- ✓ SHORT CIRCUIT LEVELS UP TO **130KA/1SEC**
- ✓ VOLTAGE RATING UP TO **1000V**
- ✓ FREQUENCY **50/60 HZ**
- ✓ AMBIENT TEMPERATURE **50°C**
- ✓ EXTERNAL PROTECTION **IP54**



MEDIUM VOLTAGE SWITCHBOARDS

- ✓ COMPLYING WITH **IEC 62271**
- ✓ INTERNAL ARC CLASSIFIED, AFLR AT UP TO **40KA/1SEC**
- ✓ AIR INSULATED EQUIPED VACUUM BREAKER
- ✓ MODULAR & METAL CLAD TYPE
- ✓ CURRENT RATING UP TO **3150A**
- ✓ RATED VOLTAGE UP TO **24KV**
- ✓ LONG ELECTRICAL AND MECHANICAL LIFE



DISTRIBUTION BOARDS

- ✓ CURRENT RATING UP TO **250A** AT AMBIENT TEMPERATURE **50°C**
- ✓ SHORT CIRCUIT LEVELS UP TO **17KA/0.25SEC**
- ✓ INGRESS PROTECTION **IP45, 55 & 65**
- ✓ COMPLYING WITH **IEC61439-2**
- ✓ CONTROL SYSTEMS FOR ZONE 0 INTRINSICALLY SAFE AREAS
- ✓ CONTROL PANELS ZONE 1 AND ZONE 2 **IECEX / ATEX**
- ✓ JUNCTION BOXES ZONE 1 AND ZONE 2 **IECEX / ATEX**
- ✓ STANDALONE PORTABLE POWER **IECEX / ATEX** MAINS DISTRIBUTION UNITS
- ✓ STARTER PANELS **DIRECT-ON-LINE** AND **STAR/DELTA**



LV CAPACITOR BANKS

- ✓ RATING UP TO **1000KVAR**
- ✓ FORM 2 CONSTRUCTION
- ✓ SHORT CIRCUIT LEVELS UP TO **50KA/1SEC**
- ✓ PROTECTION CLASS **IP31 & IP54**
- ✓ COMPLYING WITH **IEC61439-1 & IEC 61921**

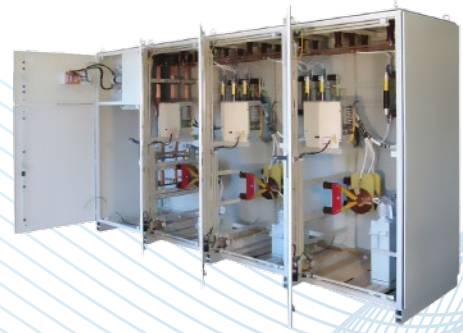


Electrical Systems

06

MV CAPACITOR BANKS

- ✓ VOLTAGE RATING **3KV TO 46KV**
- ✓ STEPS & POWER ON DEMAND
- ✓ FREQUENCY **50/60HZ**
- ✓ COMPLYING WITH **IEC62271-200**



ATS / AMF PANELS

- ✓ POWER RATING **1KVA ~ 1500KVA OR ABOVE**
- ✓ SYSTEM VOLTAGE **380 ~ 1000VAC**
- ✓ WALL / FLOOR STANDING
- ✓ STEEL SHEET / GRP ENCLOSURES
- ✓ WITH MAGNETIC CONTACTORS
- ✓ WITH MOTORIZED MCCB
- ✓ WITH MOTORIZED AIR CIRCUIT BREAKERS (ACBS)
- ✓ WITH MANUAL BYPASS OR WITHOUT MANUAL BYPASS
- ✓ MAINS WITH GENERATOR OR GENERATOR WITH GENERATOR FUNCTION



Insum Systems

TESTING AND MAINTENANCE OF COMPLETE INSUM-1 SYSTEM & INSUM-2 SYSTEM

- ✓ BAG UNIT
- ✓ PK UNIT
- ✓ MSG UNIT
- ✓ MCU
- ✓ INSUM BACKPLANE
- ✓ ROUTER
- ✓ MMI

DIGANOSIS OF FAULTY COMPONENTS.

UPGRADE EXISTING INSUM-1 & INSUM-2 SYSTEM WITH LATEST DEVICES AND PROTOCOL



GENERATOR CONTROL PANEL

NATURAL GAS OR DIESEL

PRIME OR STANDBY POWER NEEDS

AUTO-MANUAL SYNCHRONISATION

LOAD MANAGER, POWER REVERSE PROTECTION,
EARTH FAULT, FIELD LOST CONTROL,

DUAL VOLTMETER, DUAL FREQUENCY METER ALL COMES
IN ONE PANEL

GENERATOR CONTROL PANELS UP TO 6300A



POWER AND DISTRIBUTION TRANSFORMERS

LIQUID IMMERSED TRANSFORMERS

- ✓ SMALL AND MEDIUM DISTRIBUTION
RATING POWER: **FROM 25 KVA UP TO 30 MVA**
- ✓ POWER
RATING POWER: **UP TO 180 MVA**
INSULATING LEVEL: **UP TO LI 1050 KV**



DRY TYPE TRANSFORMERS

- ✓ CAST RESIN TYPE
RATING POWER: **UP TO 30 MVA**
INSULATING LEVEL: **UP TO LI 200 KV**
- ✓ OPEN WOUND AIR INSULATED
RATING POWER: **UP TO 25 MVA**
INSULATING LEVEL: **UP TO LI 200 KV**

TYPE TESTINGS:

- ✓ INSULATION RESISTANCE
- ✓ WINDING RESISTANCE
- ✓ BREAKDOWN VOLTAGE TEST
- ✓ RATIO TEST
- ✓ VECTOR GROUP



Automation System

INHOUSE DEVELOPMENT OF COMPLETE AUTOMATION SYSTEM SUCH AS SCADA, PROCESS CONTROL SYSTEM AND DDC CONTROL PANEL OF VARIOUS MAKE

MAINTENANCE OF AUTOMATION PANELS.

UPGRADING THE EXISTING AUTOMATION SYSTEM TO NEW SOLUTIONS.

SCADA

- ✓ HITACHI MICROSCADA X
- ✓ ABB ZENON
- ✓ SIEMENS WINCC, DISTO

PLC

- ✓ ABB AC500, AC800
- ✓ SIEMENS S7 SERIES, LOGO
- ✓ SCHNEIDER
- ✓ DELTA
- ✓ ALLEN BRADLEY

COMMUNICATION PROTOCOL

- ✓ IEC61850
- ✓ IEC60870-5-101
- ✓ IEC60870-5-104
- ✓ PROFINET/ PROFIBUS
- ✓ MODBUS RTU/ TCP/IP
- ✓ ETHERNET IP/ TCP



POWER QUALITY ANALYSIS AND DISTURBANCE RECORDING SYSTEM

WE OFFER COMPLETE STANDALONE PANEL SOLUTIONS FOR POWER QUALITY ANALYSIS AS WELL AS DISTURBANCE RECORDING SYSTEM.

- ✓ LIVE MEASUREMENTS MONITORING
- ✓ RECORDING OF ALL POWER DATA UPTO ONE YEAR
- ✓ INTERGARTION OF VARIOUS MODBUS DEVICES WITH BILL MANAGEMENT
- ✓ DISTRUBATION RECORDING, EVENT LOG AND HISTORY
- ✓ HARMONICS, POWER QUALITY ISSUES,
- ✓ CONSULTING SERVICES, CUSTOM SOLUTIONS

IDENTIFY POWER QUALITY ISSUES SUCH AS DIPS, SWELLS, TRANSIENTS, HARMONICS AND UNBALANCE

- ✓ DIPS
- ✓ SWELLS,
- ✓ SAG
- ✓ TRANSIENTS,



We have several test equipment available to carry out testing of various electrical components at our workshop as well as on-site. Our test equipment are calibrated frequently to

- ✓ Omicron CPC100
- ✓ Omicron CMC356
- ✓ Omicron CT Analyzer
- ✓ 6 Phase Digital Secondary Injection kit
- ✓ 5000 A Primary Injection Kit
- ✓ 200 A contact resistance test kit.
- ✓ Circuit Breaker Analyzer Kit
- ✓ Vacuum Degree Tester
- ✓ LV Breaker Secondary Injection Kit
- ✓ 10KV Insulation Resistance Kit
- ✓ 50KV AC / 70KV DC HIPOT Test Kit
- ✓ 1000A CT/ PT Analyzer Kit
- ✓ 2KV Step Up Transformer Kit
- ✓ Insulation Oil Dielectric Breakdown Tester
- ✓ Transformer DC Winding Resistance Tester
- ✓ Transformer Turn Ratio Tester
- ✓ Power Quality Analyzer Kit
- ✓ Variac 10A, 415V, 3Phase, 50/60Hz, AC 4 Wire. Out-0-480V
- ✓ Variac 20A, 415V, 3Phase, 50/60Hz, AC 4 Wire. Out-0-470V
- ✓ Variac 20A, 230V, 1Phase, 50/60Hz, AC 2 Wire. Out-0-280V
- ✓ 300VDC 10A 3000W Adjustable DC power supply
- ✓ Wireless High Voltage Phase Sequence Detector
- ✓ Portable Three Phase Rotation Indicator
- ✓ RCD/ ELCB Tester
- ✓ Temperature recorder
- ✓ Digital Oscilloscope
- ✓ Multimeter
- ✓ LCR Meter
- ✓ AC/ DC Clamp Meter
- ✓ Analog Signal Calibrator.
- ✓ Sound level Meter
- ✓ Air Flow Meter



CERTIFICATION & PARTNERSHIPS



ASSESSMENT

Quality Management System
9001:2015



ASSESSMENT

Environmental Management System
14001:2015



ASSESSMENT

OH&S management system
45001:2018



ADNOC APPROVED
(PROJECT SPECIFIC)
LOW VOLTAGE VFD PANEL MANUFACTURER

SIEMENS

SYSTEM INTERGRATOR FOR AUTOMATION
AND DRIVES PRODUCTION SUCH AS
SIMATIC PLC, SCADA, HMI, WINCC & VFD



AUTHORIZED SERVICE PARTNER AND
AUTHORIZED DISTRIBUTOR FOR THE
DRIVES & CONTROL SECTION.

Aplab

AUTHORIZED SERVICE PARTNER AND
AUTHORIZED DISTRIBUTOR FOR
STATIC FREQUENCY & DC POWER SUPPLIES.

WEG VFD AND SOFTSTARTER

IN HOUSE MANUFACTURING OF VFD & SOFTSTARTER PANELS AND WITH OUR TESTING & COMMISSIONING SERVICES PROVIDES A COST-EFFECTIVE SOLUTION

- ✓ IP42 / IP54 STANDALONE PANEL
- ✓ TEMPERATURE 40°C TO 55°C
- ✓ RATING UPTO 710KW

**OFFICIAL SERVICE PROVIDER FOR WEG LV & MV DRIVES & SOFT STARTER
IN THE MIDDLE EAST AND NORTH AFRICAN REGION**

**CERTIFIED ENGINEERS FOR MEDIUM VOLTAGE AND LOW VOLTAGE DRIVES & SOFTSTARTERS
FROM WEG BRAZIL.**

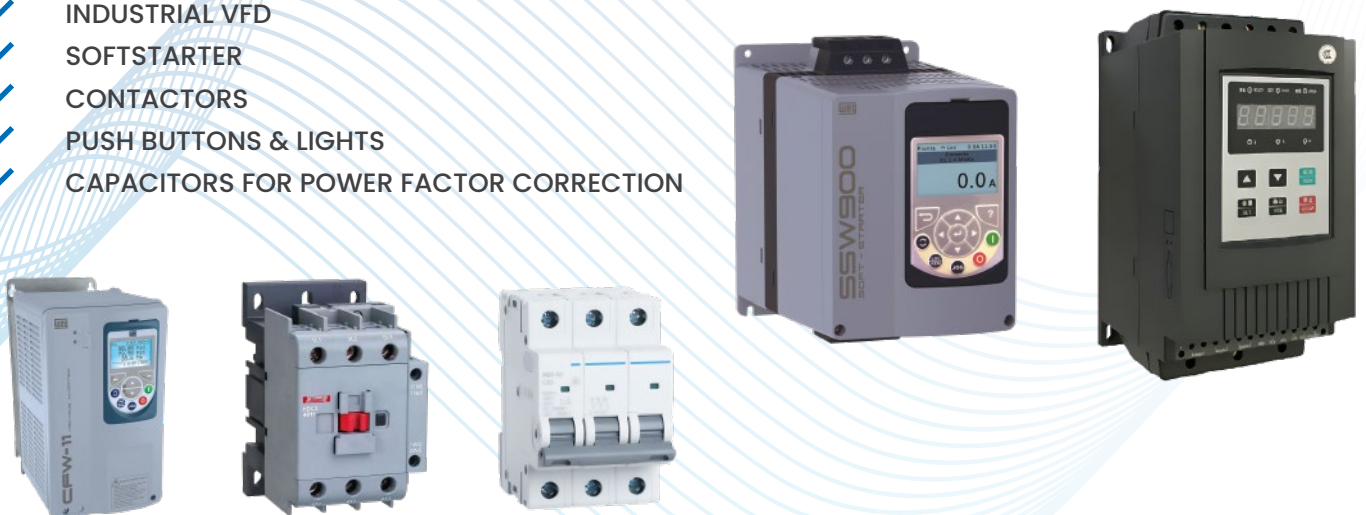
**OUR TEAM HAS EXPERIENCE IN COMMISSIONING OF OVER THOUSANDS OF VFDS UPTO 8MW FOR
VARIOUS APPLICATION ACROSS MENA REGION.**



AUTHORIZED DISTRIBUTOR OF WEG AUTOMATION PRODUCTS IN THE MIDDLE EAST

WE HAVE A GOOD STOCK OF FOLLOWING ITEMS FROM WEG AUOMTATION PRODUCTS

- ✓ HVAC VFD
- ✓ INDUSTRIAL VFD
- ✓ SOFTSTARTER
- ✓ CONTACTORS
- ✓ PUSH BUTTONS & LIGHTS
- ✓ CAPACITORS FOR POWER FACTOR CORRECTION



STATIC FREQUENCY CONVERTORS

AUTHORIZED AGENT OF APLAB SFC AND DC POWER PANEL IN UAE AND MIDDLE EAST REGION.

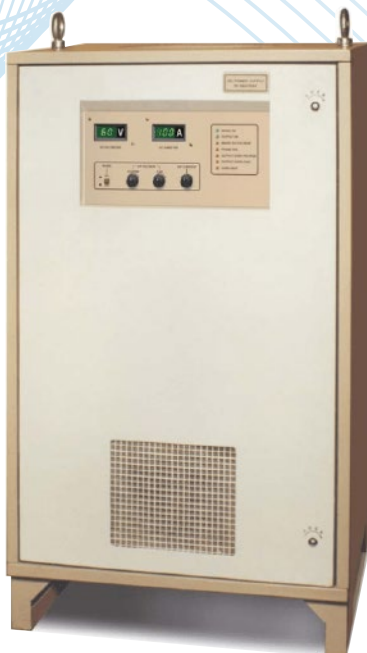
- ✓ STATIC FREQUENCY CONVERTORS UPTO 300 KVA.
- ✓ MAXIMUM INPUT VOLTAGE 480VAC +/- 10%.
- ✓ MAXIMUM OUTPUT VOLTAGE 480VAC +/- 10%.



DC POWER PANEL

AUTHORIZED AGENT OF APLAB SFC AND DC POWER PANEL IN UAE AND MIDDLE EAST REGION.

- ✓ STATIC FREQUENCY CONVERTORS UPTO 300 KVA.
- ✓ MAXIMUM INPUT VOLTAGE 480VAC +/- 10%.
- ✓ MAXIMUM OUTPUT VOLTAGE 480VAC +/- 10%.



SPARE PARTS SUPPLY

UNINTERRUPTIBLE POWER SUPPLY

BREAKERS- VCB, ACB, MCCB, MCB, ETC.

CURRENT TRANSFORMERS

VOLTAGE TRANSFORMERS

PROTECTION RELAYS

MULTIFUNCTION METERS

SWITCHBOARD CONTROL COMPONENTS

VFD DRIVE SPARE PARTS

HARMONIC FILTERS, SINE FILTERS, DV/DT FILTERS, CAPACITORS

RESISTIVE LOAD BANK & MANY MORE

CABLES



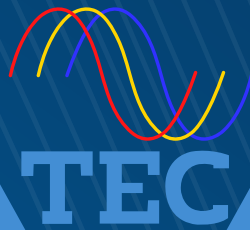
HEALTH, SAFETY & ENVIRONMENT

COMMITTED TO PROVIDE AND MAINTAIN THE HIGHEST LEVEL OF SAFETY AND HEALTHY ENVIRONMENT ALWAYS, HENCE PREVENTING OCCUPATIONAL ACCIDENTS, INJURIES, ILLNESSES OR UNNECESSARY ENVIRONMENTAL DAMAGES.

QUALITY

WE ARE COMMITTED TOWARDS DELIVERING UNDENIABLE QUALITY IN ELECTRICAL & AUTOMATION DESIGN, DETAILED ENGINEERING, INSTALLATION, TESTING AND COMMISSIONING WORKS.

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