



United Switchgear Company PVT Ltd.

یونائیٹڈ سوئچ گیئر کمپنی پرائیوٹ لمیٹڈ
Manufacturer & EPC Contractors

*Engineered Solutions
for Power & Industry*

COMPANY PROFILE



Power Utilities



Industrial



Commercial



Infrastructure



Solar Energy



PEC C-2 Licensed



MEPCO Approved



Approvals & Certifications

www.uscltd.com.pk

Company Introduction

WHO WE ARE

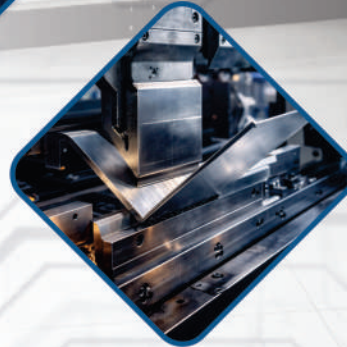
United Switchgear Company (USC) is a leading engineering solutions provider specializing in the design, fabrication, and engineering of low and medium voltage switchgear, electrical panels, power distribution systems, and industrial solutions.

Established in 2012, we have over a decade of experience in delivering high-quality, reliable and customized power solutions for various sectors including power utilities, industrial plants, commercial projects, infrastructure, and solar energy.

Our Engineering Expertise

At USC, we pride ourselves on our engineering excellence and commitment to quality. Our facilities are equipped with state-of-the-art machinery and a highly skilled team dedicated to providing top-notch products and services.

- Design and manufacture of LV (Low Voltage) and MV (Medium Voltage) Switchgear
- Fabrication of Control Panels and Power Distribution Boards
- Engineering of Complete Electrical Systems
- Provision of Customized Power Solutions Tailored to Client Needs
- Integration of Renewable Energy Solutions, including Solar Power Systems



Visit Our Youtube Channel

Vision & Mission



OUR VISION

To be the leading provider of innovative, reliable, and sustainable power solutions, empowering industries and communities for a brighter, energy-efficient future



OUR MISSION

To deliver high-quality, customized engineering solutions that meet the evolving needs of our clients, ensuring safety, reliability, and efficiency in power distribution and industrial automation.

• OUR VALUES •



QUALITY

Delivering products and services of the highest standard



INNOVATION

Embracing new technologies and innovative approaches



INTGRTY

Conducting business with honesty, transparency, and ethical practices



CUSTOMER FOCUS

Understanding and exceeding customer expectations

Message From The CEO

Thank you for taking the time to explore our company. As CEO of United Switchgear Company Pvt Ltd, it is my honor to welcome you to our USC family. At USC, we are passionate about designing and delivering top-notch switchgear solutions, that power homes, businesses and industries. Our commitment to safety, reliability, and excellence is at the core of everything we do. With customer satisfaction and innovation as our guiding principles, we strive to exceed expectations every step of the way. Thank you for considering USC as your trusted partner in switchgear solutions. We look forward to the opportunity to serve you and meet your electrical needs



Message From Directors

Dear Valued Customers and Partners,

Thank you for your trust and confidence in United Switchgear Company Pvt Ltd. We are committed to being your valued partner in providing cutting-edge power solutions to industries in Pakistan. We value customer satisfaction and uphold industry standards by focusing on technical expertise and quality standards to ensure excellence first. Our priorities are strengthening our relationships, fostering innovation, enhancing quality and promoting responsible growth. We thank you for your trust and collaboration. For any questions and concerns, please feel free to reach out to us



Approvals & Certifications

United Switchgear Company is fully certified and approved to national and international standards.



- ✓ PEC C-2 Licensed
- ✓ MEPCO Approved
- ✓ ISO 9001:2015 Certified
- ✓ ISO 14001:2015 Certified
- ✓ ISO 45001:2018 Certified
- ✓ NESKPAK Approved
- ✓ NGC Wapda Approved
- ✓ AEDB Liscence C1 Category
- ✓ FBR/ PST / GST Registered
- ✓ Government Social Secuity Cleance
- ✓ EOBI Registered
- ✓ Labour & Factories Act Certification
- ✓ Member of Industrial - Multan
- ✓ C&W Approved



Approvals & Certifications

International Standard Compliance



- ✓ IEC 61439 Compliant LV Switchgear & Power Division Panels
- ✓ IEC 62271 11kV MV Voltage Switchgear / VCB Panels
- ✓ IEC IEEE Standard Based Design & Testing

Utility & Regulatory Compliance



- ✓ NTDC / WAPDA Technical Specification Compliant Equipment.
- ✓ DISCO Approved Engineering Practices (MEPCO / GEPCO. etc.)
- ✓ Compliance With Pakistan Electrical Standards (PES)

Approvals & Certifications



- ✓ PEC C-2 Licensed
- ✓ MEPCO Approved
- ✓ ISO 9001:2015 Certified
- ✓ ISO 14001:2015 Certified
- ✓ ISO 45001:2018 Certified
- ✓ NTDC / WAPDA Technical Specification Compliant
- ✓ IEC 61439 Compliant LV Switchgear
- ✓ IEC 62271 11kV MV Voltage Switchgear (11kV VCB Panels)



All panels are designed, manufactured & tested in accordance with IEC Standards
are relevant WAPDA / DISCO technical specifications

The Power to deliver

United Switchgear Company equipped with Man Power having over 30+ years of experience in design, installation & Commissioning of Electrical equipment's is an emerging Company in Today's electricity market of Pakistan. Today United Switchgear is at the cutting edge of design and innovation, engineering of EHV, High, medium and low Voltage switchgear and providing retrofit and automation solutions to customers

Through our customers, United Switchgear's power distribution solutions facilitate the delivery of electricity to homes and businesses nationwide. United Switchgear's purpose built, state of the art facility in Multan Industrial Estate, is home to its main manufacturing plant in the Pakistan. From this base we offer nationwide support to our many customers, joint ventures and business partners across the Country.

Our primary focus is to provide an excellent service to customers

Offering a complete product Portfolio and a wide scope of services, our excellence is based on a long tradition of expertise, coupled with state of the art technology to meet the stringent customer specifications of today

United Switchgear specializes in providing services for the electrical utilities market sector. Long-term contracts and specifically tailored products for Distribution Network Operators and Electricity Companies make us one of the few Companies that can offer truly bespoke solutions. With the expertise to refurbish, retrofit and upgrade our switchgear, and that of competitors, for maximum life expectancy, United Switchgear offers power distribution solutions to utilities in Pakistan and beyond, including joint ventures in Afghanistan.

At United Switchgear, quality, safety and protection of our environment is paramount! From the selection of materials through manufacturing to final inspection, strict procedures are monitored to meet the highest industry standards. We refurbish and upgrade our switchgear, and that of competitors for maximum life expectancy. United Switchgear offers power distribution solutions to satisfy the most complex system specifications



Our Capabilities

Modern CNC Bending, CNC Laser Cutting Machines, Laser Welding Plants and CNC Copper Bus Processing

United Switchgear capabilities encompass both hardware and software for power distribution and control system projects. The integrity of our design process is second to none, focusing on providing the right solution tailored to our diverse customer's needs.

- ✓ Modern precision equipment including advanced **CNC bending and CNC laser cutting machines, Laser welding plants and CNC Copper bus processing machine** ensure accurate and efficient motor control construction that meet international standards..
- ✓ CAD software enables perfect design and development cycles from concept through application projects
- ✓ **Precision CNC** laser cutting for accurate and complex cuts
- ✓ **CNC bending** for precise and versatile bending of sheet metal
- ✓ **Laser welding plants** for high-precision and efficient welding
- ✓ **CNC Copper bus processing machine** for precise manufacturing of copper busbars



United Switchgear has incorporated the most advanced equipment technology available, modern CNC Bending, CNC Laser Cutting, Laser Welding Plants and CNC Copper Bus Processing Machine in our state-of-the-art in-house manufacturing facility located in Multan. This cutting-edge machinery ensures the highest standards of precision and quality

Engineering & Design Capabilities

Our highly skilled engineering team provides comprehensive design solutions tailored to meet the safety, reliability, and performance, ensuring efficient, safe, and technologically advanced switchgear systems



Electrical System Design



HT & LT Switchgear Engineering



Power Distribution System Studies



Protection Coordination & Relay Settings



Busbar Design & Thermal Calculations



AutoCAD / Electrical Schematic Design



Solar PV System Design & Integration



Custom Industrial Control Panels



Manufacturing & Production Facilities

Our state-of-the-art facility is equipped with modern machinery and operated by skilled technicians to ensure the highest standards of quality and craftsmanship



Precision CNC Machining

Laser cutting, punching and bending for accurate and durable parts



Automated Powder Coating

Laser cutting, punching and bending for accurate and durable parts



Skilled Assembly & Wiring

Laser cutting, punching and bending for accurate and durable parts



Rigorous Quality Control

Laser cutting, punching and bending for accurate and durable parts



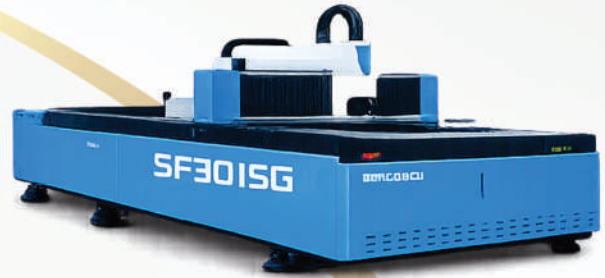
ISO 9001
2015

Manufacturing Facilities & Infrastructure

Our state-of-the-art facility is equipped with advanced machinery to ensure precise and efficient manufacturing of switchgear components



**CNC Bending
Press Brake**



**Laser CNC Cutting
Machine (SF3015G)**



**CNC Copper
Bending Machine**



**CNC Copper Cutting
& Punching All-in-One**



**Hydraulic Busbar
Processing**



**Welding
Plant**



**Label Making
Machine**

Testing & Quality Control Inspection

Our state-of-the-art electrical testing facility is equipped with advanced equipment to ensure the safety, reliability, and performance of our products



60 KV AC/DC Hipot Tester



Contact Resistance Tester
(LNL-100A)



10 KV DC
Insulation Resistance Tester



Secondary Injection Test Set
(Multifunction Kit)



Bench-Type Hi-Pot Tester
(Multifunction Kit)



3000-6000A Primary Injector



Quality Assurance Process

- ✓ Incoming raw material inspection
- ✓ Electrical continuity and insulation testing
- ✓ Dimensional and fabrication quality checks
- ✓ Final inspection and documentation before delivery



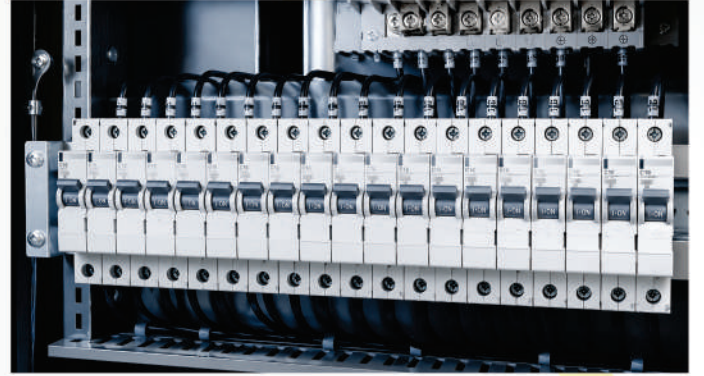
Service & Supports

United Switchgear Company believes Continuous quality checks at various stages of design, manufacture and testing ensures that customers receive the quality product they require. The document control system guarantees that only the latest relevant documents, drawings and standards are introduced at any step.

In-house site services mobile lab testing, which has been a crucial and valuable asset. The site commissioning time and offering customers the opportunity to initiate changeover/installation contracts – including primary switchgear in the range up to 3000A as well, ideal for fast integrated infrastructural installation is possible through utilizing specialist expertise.

USC offer documentation comprehensive, preventive & overall commissioning service plus 24 – hour after sales service includes the following key capabilities:

- ▶ High power testing
- ▶ HVAC System
- ▶ Commissioning
- ▶ Site Survey
- ▶ Competitive operation and maintenance contracts
- ▶ Power Quality and Analysis Services



Engineering Design, Testing & Commissioning

We Design electrical System ranging from a small Industrial Complex to Grid-Station

- ▶ Transformer & Cable, Bus duct / Sizing Calculations.
- ▶ LT-PF System Design
- ▶ SCADA Switching Application
- ▶ Distribution & Protection Design of Power System
- ▶ Grid 11KV Switching & Communication System
- ▶ Low Voltage & Sub Station AC Configurations



Our Product Portfolio

Main Product

- ✓ Main LV Switchboard
- ✓ Motor Control Center (MCC)
- ✓ PF Improvement Panels
- ✓ Harmonic Filter Panels
- ✓ Auto Transfer Switch Panels (ATS)
- ✓ Auto Main Failure Panels (AMF)
- ✓ Synchronisation & Load Sharing Panels
- ✓ Solar Invertor Control Panels
- ✓ PLC Marshaling Cubicles
- ✓ Bus Tie Duct

Medium Voltage System

- ✓ MV Switchboards
- ✓ MV Power Factor Improvement Panels
- ✓ MV Harmonic Filter Panels
- ✓ Feeder / Transformer Protection Panels
- ✓ Neutral Grounding Resistor (NGR) Panels
- ✓ Pad Mounted Substation Panels
- ✓ Ring Main Units (RMU)

Power & Utility System

- ✓ MV Auto Transfer / Changeover Panels
- ✓ MV Auto Mains Failure Panels
- ✓ Power Transformer Marshaling Kiosks
- ✓ Distribution Transformer Protection Panels
- ✓ 380 / 220 / 132 KV Control & Relay Panels

Services

- ✓ Installation, Testing & Commissioning of LV / MV Switchgear
- ✓ Refurbishment of Existing Switchgear Systems
- ✓ Power Quality Analysis & Harmonic Solutions



132KV AND 220KV GRID STATION CONTROL & RELAY PANELS

Switchgears upto 220 kV are designed, manufactured and supplied to suit medium sized and high-capacity substations

RANGE OF CONTROL PANELS SUPPLIED

- Local/Control Panels for: 132-132 kV Switchgear
- Remote Control Panels for 132 – 132 kV Switchgear
- Relay Panels for 132 kV and DEO 220 kV
- Remote Control and Relay Panels for 11 kV 333 kV
- Synchronizing Panels
- Telemetry Control Panels
- Power Line Carrier Communication Panels
- Busbar Protection Panels
- Transformer Paralleling Transfer Cabinets
- Synchronizing Panels

TECHNICAL SPECIFICATION

Standard:	IEC/IEC0452-1
Rated st:	132 kV, 220, 220 kV 60 50 Hz
Voltage:	6211 V
Panel Colour:	RAL - Off White (RAL-9002)
Cable Entry:	Front / Rear



MV Feeder Protection Panels

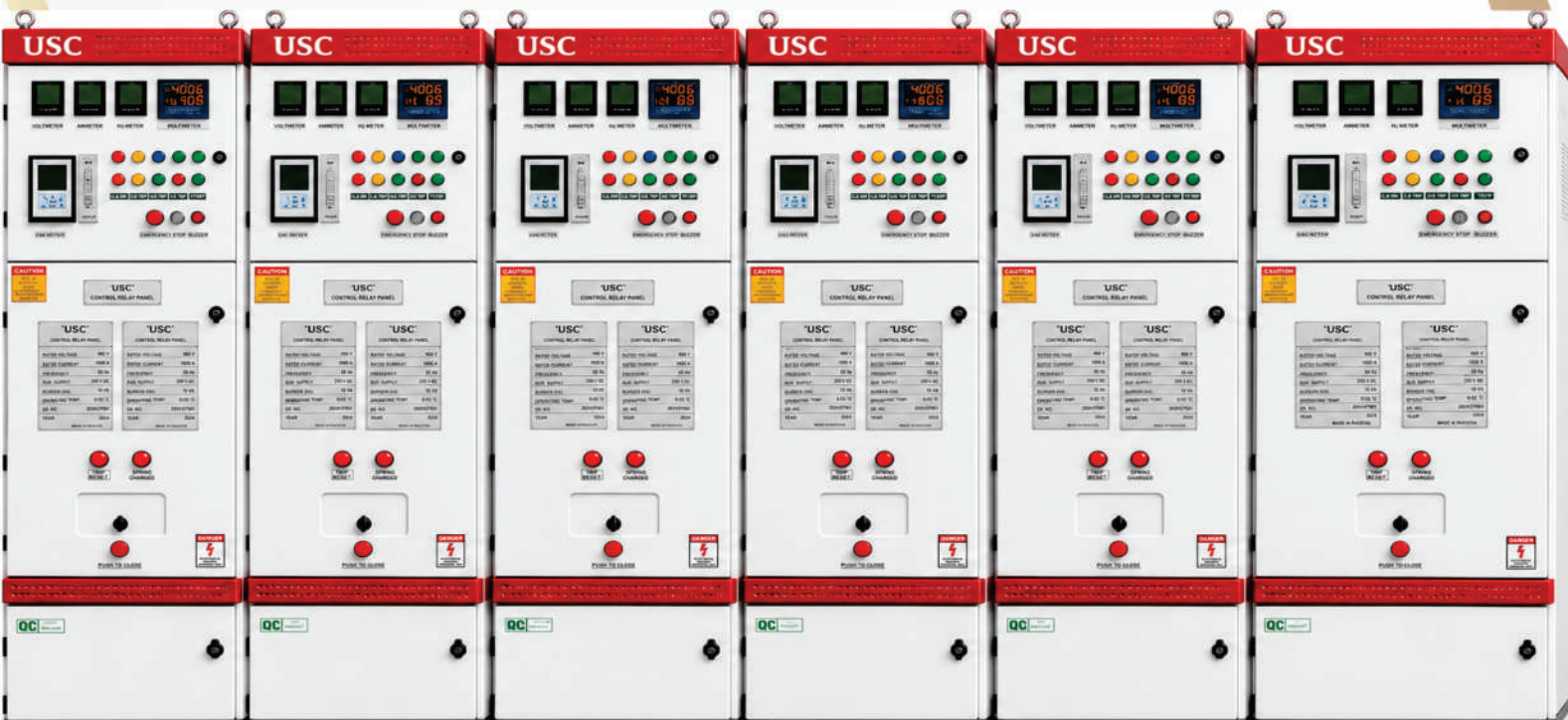
Features

- Air insulated, single bus bar system
- Protection IDMT/OC (Earth fault/grading supervision)
- Interchangeable Hyundai/SION breakers

Safety

- Metal clad and compartmentalized design to IEC62271-200
- Easily and safely accessible service and test positions
- Prevention of operator incorrect work

Rated voltage	up to 17.5KV
Rated current	up to 2500A
Rated short-time wu	up to 25KA/3s
Frequency	50/60Hz
Util TCC A	1250/630
Operating cycles	up to 10,000 tuk/3s
AC Control Supply	110/220V
DC Control Supply	110V DC
Closing Coil Unit	110V DC
Tripping Coil Unit	110V/220.240VAC
IP protection func stds	3X/31/61/64/65/55/55/66/67/55



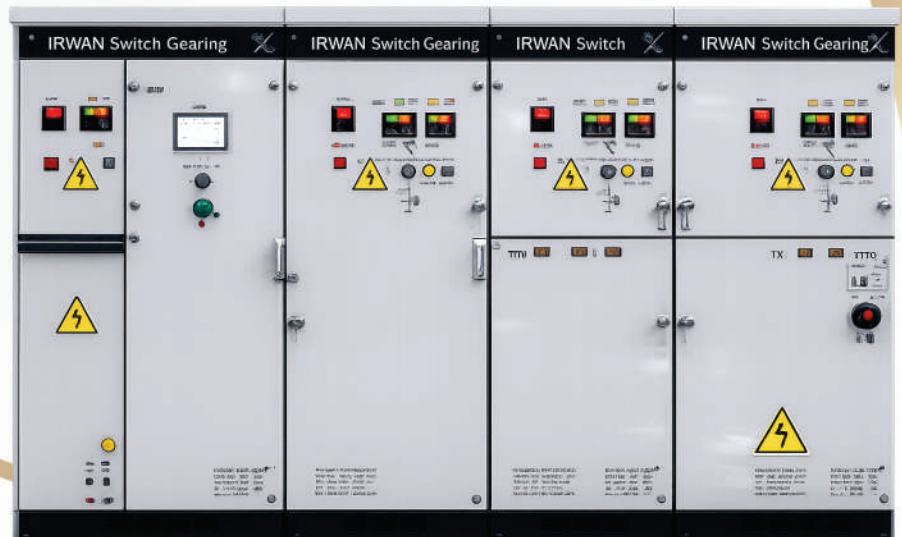
USC Products Portfolio

WAPDA Approved Products

- LT Service Box
- Meter Security Box
- 132 KV Wapda AC/DC Relay Control Panels
- Wapda Approved 11 K HT Panels



- Reliable and Secure LT Service Box and Meter Security Box.
- Precision 132 KV Wapda AC/DC Relay Control Panels ensuring control and safety in high-voltage applications.
- Durable 11 KV HT Panels WAPDA Approved, designed to meet the highest standards for safety and functionality.



PMTs, RMUs and Wapda Approved Products (LT SERVICE BOX / M.S BOX)

Main components of distribution medium voltage switchgear arranged as function as Ring Main Units (LT disconnect switch/meter and 1-fused T-off) metering, LV Switchgear and control gear corresponding to inline functions and auxiliary equipment. Enclosures are made of 2.3mm sheets metal, are modular break-out boxes suitable for mounting on a concrete pole, indoor floor and are easily accessible for internal part load dispatch.

TECHNICAL SPECIFICATION

- Rated voltage up to 17.5 KV
- Performance rating up to 2500 KVA
- Protection class IP54
- Available Ratings: 100, 200, 400, 630, 1000 KVA



LT KOISK (WAPDA APPROVED)



LT KOISK (WAPDA APPROVED)



METER SECURITY BOX



LT SERVICE BOX
(WAPDA APPROVED)



LT KOISK (WAPDA APPROVED)
INTERNAL VIEW

Main LV Switchboard

USC LV switchboards are constructed from IEC 60439 and IEC 61439 compliant switchgear systems in producing quality LV switchgear. USC built switchboards are class leading in terms of technical performance, versatility of design and whole life operational costs. We offer front or rear acb access busbar systems. Routinely tested naturally cooled ACB cubicles to 6300A and construction to Form 4B with front or rear cable access options available.

Technical Specifications

Construction Separation	✓	To IEC 61499-2. Up to Form 4B
Busbar System Current Rating	✓	800A to 6330A
Busbar System Short Circuit Rating	✓	36kA/1s (30kA/1s) (50kA/3s) (90 kA/1s)
Voltage Ratings	✓	400V (660V
Cable Access	✓	Top, Bottom, Front or Rear
Ingress Protection	✓	IP5A (P 22 or IP:3)
Panel Colours	✓	Available-in all RAL (Default RAL)
Safe Access from Direct Touch	✓	Provided
Sheet Thickness	✓	Standard 20 mm or as required
Mimic	✓	Included
Insulated Bus Bars	✓	Optional
Neutral busbar options	✓	Option (4 / 50% : Default)
Other busbar options	✓	Optional



- Short circuit withstands strengths and temperature rise limitations in accordance with IEC:61439 standards
- Top or bottom front or rear mounted busbars
- Bottom covered rear mounted busbars
- Side or top front or rear mounted secondary branch busbars
- Fully type tested tripped and partially type tested automatically manufactured in
- Top or bottom, Front or Rear cable access



ATS, Synchronizing And Load Sharing Panels

KEY LOAD SHARE FEATURES

- Fixed export with reverse utility
- Synchronizing up to 16 generators
- Sequential start
- Direct governor and AVR communication and control. Manual voltage, frequency and speed adjustment
- Vibration load frequency matching
- Genset overload and MW and kVAR Load Sharing
- Automatic In-house commissioning
- R.O.C.O.F & Vector Shift, Campde and GPS1 Biclirion



Motor Control Center

From Textile to petrochemical, water utilities to power generation, United Switchgear has extensive experience in the successful implementation of complex motor Control Centre Projects across all industry sectors.

Our versatile USC switchgear system Accommodates Fixed or Withdraw able MCC's designed to meet the ever changing requirements of today's process industries. All types of fixed and variable speed starters are available and we offer designs in both Form 2 and Form 4.

Electrical Ratings

Technical Specifications

Construction Separation	✓ To IEC 61439-2, Up to Form 4B
Busbar System Current Rating	✓ 800A to 6300A
Busbar System Short Circuit Rating	✓ 36kA/ 1s) (50kA/1) (50kA/3s) (80 kA/1s) (100kA/1s)
Voltage Ratings	✓ 400V / 690V
Cable Access	✓ Top, Bottom, Front or Rear
Ingress Protection	✓ IP 54, IP 42 or IP 31
Panel Colour	✓ Available in all RAL : (Default: RAL 7032)
Safe Access from Direct Touch	✓ Provided by Default
Sheet Thickness	✓ Standard 2.0 mm or as required.
Mimic	✓ Optional
Insulated Bus Bars	✓ Provided
Neutral busbar options	✓ 100% or (50% : Default)
Earth busbar options	✓ 50% or (25% : Default)
MCC Category	✓ Type 1 & Type 2 Coordination



Auto & Manual Power Factor Plant

Automatic Power Factor Correction (APFC) Panels from United Switchgear Company (USC) are designed to provide unmatched performance, reliability and versatility for critical Power Network applications. The (APFC) can be equipped with controllers to match your application needs. All the controllers offer rock-solid control & monitoring, front panel status reporting and control operation combined with Superior design and robust construction. We follow 100%; testing that includes the following (Visual and dimensional check, Mechanical operation check, Applied voltage test to earth on power circuits: 3KV for 1 minute, Electrical and functional operational check)



Electrical Ratings

- ▶ 100,150,200,250,300,400,500,600,750,900,1200 KVAR
(other ratings are available on request)
- ▶ Heavy Duty Capacitors Rated 415V, 460, 480 VAC for extra protection against over voltage
- ▶ Self-Healing MKP Dielectric
- ▶ Over Pressure Device for the capacitor
- ▶ Standard IEC 831-1/2 and IEC 439-1
- ▶ Relay current input signal: from CT on line .../5A
- ▶ IP 54 indoor (outdoor ratings also available)



Harmonic Filter Panel

USC & LTD Harmonic Filter Panels are engineered to mitigate harmonic distortion in low voltage electrical systems caused by non-linear loads such as VFDs, UPS systems, rectifiers, welding machines, and SMPS-based equipment. Harmonics increase Total Harmonic Distortion (THD), leading to overheating of transformers and cables, nuisance tripping of breakers, capacitor failure, and reduced equipment lifespan. Our harmonic filter solutions are designed after proper harmonic analysis of the system and are customized according to load profile and harmonic spectrum. The system ensures compliance with IEEE-519 and IEC power quality standards.



Features

- ▶ THD reduction as per IEEE-519 standards
 - ▶ Real-time harmonic compensation (Active models)
 - ▶ Detuned capacitor banks (Passive models)
 - ▶ Reactor protection against resonance
 - ▶ Intelligent controller with LCD display
 - ▶ Modular and scalable design
 - ▶ Overload, over-temperature & short circuit protection
-
- ▶ Detailed Power Quality Analysis surveys available
 - ▶ Impartial engineering advice
 - ▶ Fully automatic PFC banks available up to 1200 KVAR
 - ▶ Conventional or Static switched PFC stages (with Tuned or De-Tuned options)
 - ▶ Harmonic Filtration, Voltage SAG & Flicker control solutions
 - ▶ Modular semi with-drawable construction



Electrical Distribution Boxes

USC & LTD Harmonic Filter Panels are engineered to mitigate harmonic distortion in low voltage electrical systems caused by non-linear loads such as VFDs, UPS systems, rectifiers, welding machines, and SMPS-based equipment. Harmonics increase Total Harmonic Distortion (THD), leading to overheating of transformers and cables, nuisance tripping of breakers, capacitor failure, and reduced equipment lifespan. Our harmonic filter solutions are designed after proper harmonic analysis of the system and are customized according to load profile and harmonic spectrum. The system ensures compliance with IEEE-519 and IEC power quality standards.

Technical Specification

Parameter	Specification
Material	CRCA Sheet Steel
Thickness	1.2 – 2.0 mm (as per application)
Protection Class	Ip42 (Indoor) / IP54 (Outdoor)
Surface Finish	Powder Coated (RAL 7035 Standard)
Busbar Material	Copper
Rated Voltage	Up to 415V
Frequency	50/60 Hz
Cable Entry	Top / Bottom (Knockouts / Gland Plate)
Standard Compliance	IEC 61439



Key Features

- ▶ Compact and space-efficient design
- ▶ Available with and without glass door
- ▶ Elegant and durable finish with RAL7035 powder coating

Standard / Compact Sizes

- ▶ 450×600×150 mm
- ▶ 600×800×175 mm
- ▶ 800×1000×175 mm

- ✓ Indoor
- ✓ Wall Mounted
- ✓ Wall Concealed
- ✓ With Glass
- ✓ Without Glass



Bus Tie Ducts

United Switchgear Bus duct is a product for the distribution of power throughout all types of installations. Whether you require rising mains in a tower building or an entire LV distribution system, we provide the complete design and installation package to suit your building design.

- ▶ Copper or aluminium conductor options
- ▶ Maintenance free joint system
- ▶ Direct connection to switchgear available using flanged end units
- ▶ End-feed units available for connection to feeder cables
- ▶ Site installation packages available, carried out by

Technical Specifications

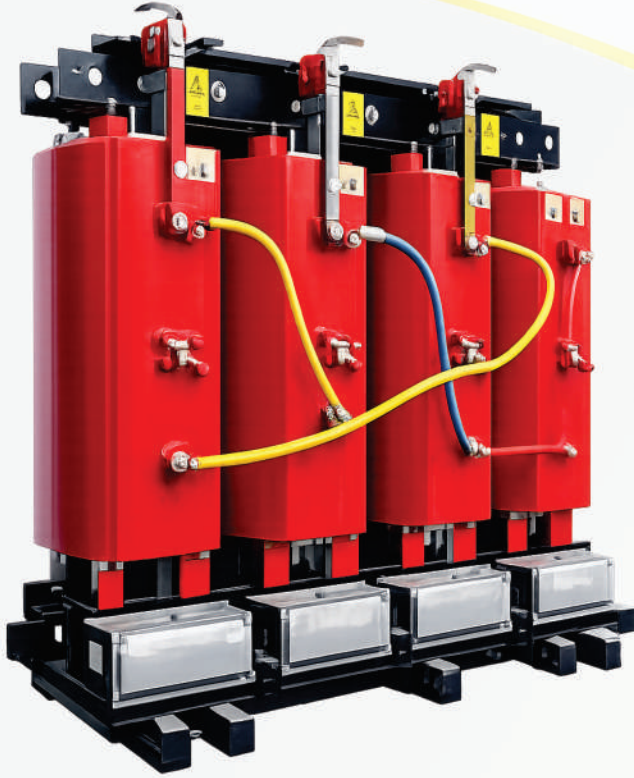
Specifications Overview

Busbar System Current Rating	800A to 6000A at Low Voltage
Busbar System Short Circuit Rating	50kA for 1s to 100kA for 1s
Voltage Ratings	415V / 690V
Ingress protection	IP 40, IP 43, IP 54, IP64 or IP 67 (Outdoor)
Panel Colour	Available in all RAL : (Default RAL 7032)



Dry Type Transformer

► Reliable ► Safe ► Maintenance-Free Power Solutions



Product Range

Cast Resin Dry Type Transformers (CRT)

- | | |
|------------|------------|
| ✓ 630 kVA | ✓ 1600 kVA |
| ✓ 800 kVA | ✓ 2000 kVA |
| ✓ 1000 kVA | ✓ 3500 kVA |
| ✓ 1250 kVA | ✓ 4000 kVA |
| ✓ 1600 kVA | ✓ 5000 kVA |

Technology Overview

Dry Type Transformers utilize Epoxy Resin Cast Coil Technology, ensuring

- ✓ Fire-safe and explosion-proof operation
- ✓ High dielectric strength and insulation reliability
- ✓ Suitable for indoor installations and critical environments

Technical Specifications

Parameter	Specification
Rated Voltage	Up to 11 kV / 33 kV
Insulation Class	F / H
Cooling Type	AN / AF
Frequency	50 Hz
Vector Group	Dyn11 (Standard)
Impedance	As per IEC
Standards	IEC 60076-11

Key Features

- | | |
|-----------------------------|--------------------------|
| ✓ Fire Resistant & Safe | ✓ Compact & Space-Saving |
| ✓ High Mechanical Strength | ✓ High Efficiency |
| ✓ Moisture & Dust Resistant | ✓ Superior Cooling |
| ✓ Low Maintenance | |

Applications

- ✓ Hospitals & Healthcare Facilities
- ✓ Commercial Buildings & Malls
- ✓ Industrial Plants
- ✓ Data Centers

Our Strength

- ✓ Designed as per IEC Standards
- ✓ High-quality copper / aluminum windings
- ✓ Integrated with USC LV / MV Systems
- ✓ Proven performance in industrial projects

Oil Type Transformer

► Efficient ► Durable ► Robust Power Solutions

Product Range

- ✓ Oil Immersed Distribution Transformers
- ✓ Up to 10 MVA
- ✓ Voltage Class: Up to 33 kV

Technology Overview

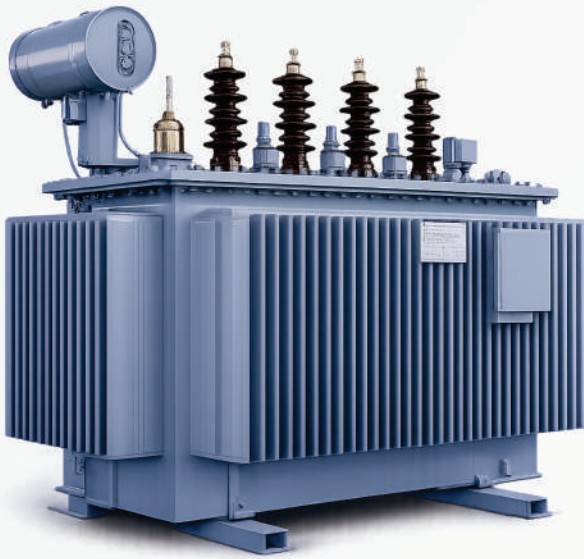
- ✓ Fully Sealed Conservator Design
- ✓ Maintains efficient cooling and reliable operation
- ✓ Sealed tank structure prevents contact between transformer oil and air, minimizing moisture absorption and oxidation
- ✓ Designed for harsh environments and critical applications

Key Features

- ✓ Long Service Life
- ✓ High Operational Reliability
- ✓ Leak-Proof Construction
- ✓ Noise Reduction

Applications

- ✓ Utility Power Distribution Networks
- ✓ Industrial and Manufacturing Plants
- ✓ Residential Complexes & Housing Projects
- ✓ Commercial & Office Buildings
- ✓ Water & Sewage Treatment Facilities



Technical Specifications

Parameter	Specification
Primary Voltage	Up to 33 kV
Secondary Voltage	Standard up to 433 V
Rated Power	Up to 10,000 KVA
Vector Group	Dyn11 (Standard)
Frequency	50 Hz
Tap Changer	Off-load / On-load
Mineral Oil	Sealed as per IEC 60296
Cooling Method	ONAN / ONAF
Protections	Buchholz relay, pressure relief, temperature indicator

Single Phase Automatic Voltage Regulator (AVR)

► Reliable ► Efficient ► High Performance Voltage Regulation



Product Range

- ✓ Single Phase Automatic Voltage Regulator
- ✓ Capacity up to 10%

Technology Overview

- ✓ Automatic and precise voltage adjustment for stable output
- ✓ Motor-driven, on-load operation, without blackout
- ✓ Designed for rural, utility and industrial power networks

Key Features

- ✓ High voltage regulation accuracy of $\pm 1.5\%$ achieved within a short response time.
- ✓ Voltage regulation range up to $\pm 10\%$ without power interruption.
- ✓ No interruption during voltage adjustment for safe and reliable operation.
- ✓ Smooth motor-driven adjustment across the operating range.
- ✓ Designed for long service life with reliable mechanical operation.
- ✓ Reduces design losses and improves overall system efficiency.
- ✓ Robust construction with minimal maintenance requirements.

Technical Specifications

Parameter	Specification
Input Voltage	10 kV to 35 kV
Rated Capacity	500 kVA to 1667 kVA
Output Voltage	$10\% \pm (1.5\%)$
Allowed Deviation	Max $\pm 1.2\%$
Regulating Mode	On-Load
Step Voltage	64 Steps
Frequency	50 Hz / 60 Hz
Insulation Class	Class H (180°C)
Cooling Type	Oil Immersed
Ambient Temperature	-40°C to 70°C

Applications

- ✓ Rural Power Distribution Networks
- ✓ Utility Power Regulation
- ✓ Industrial Plants & Substations
- ✓ Remote & Agricultural Areas

GENSET SUPPLY SYSTEMS

Imported & Local Coupled Perkins and Cummins
Genset from Partners across the World

- | | | | |
|-----------|------------|------------|-----------|
| ✓ 50 kVA | ✓ 100 kVA | ✓ 350 kVA | ✓ 750 kVA |
| ✓ 200 kVA | ✓ 600 kVA | ✓ 400 kVA | |
| ✓ 500 kVA | ✓ 1250 kVA | ✓ 1000 kVA | |



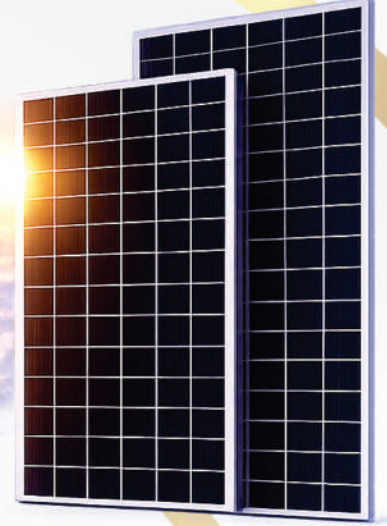
 **Perkins**

 **Cummins**

On Site Testing and Commissioning Services

SOLAR SYSTEMS

GoodWe, Hybrid & On-Grid Inverters



GOODWE



GOODWE

LONGI

GINKO Solar

Installation Offered for

- ▶ XLPO Cables
- ▶ Galvanized/Power Coated Structures
- ▶ Cable Trays
- ▶ AC Supply & DC Strings Distribution Boxes Indoor / Outdoor Type
- ▶ Online Monitoring Systems of Installed Solar Systems



UNITRONIC POWER UPS SYSTEMS

► Reliable ► Scalable ► Advanced Power Protection



Product Range 1 to 10+ KVA

- **Single Phase UPS**
 - 1 KVA
 - 6 KVA
 - UPS 2 KVA
 - UPS 10 KVA
- **Three Phase UPS**
 - 15 KVA
 - 25 KVA
 - 50 KVA
 - 20 KVA
 - 30 KVA
 - 100 KVA
- **Extended Industrial Range (ULT Series)**
 - ULT33100 - 100 KVA
 - ULT33120 - 120 KVA
 - ULT33160 - 160 KVA
 - ULT33200 - 200 KVA
 - ULT33250 - 250 KVA
 - ULT33300 - 300 KVA
 - ULT33400 - 400 KVA

Key Features



- **Online Double Conversion**
Seamless power protection for protection.
- **High Efficiency**
Up to 96% efficiency with ECO Mode.
- **Intelligent Battery Management**
Extended battery life, optimization performance.
- **Scalable & Modular Design**
Parallel connection. Capable for redundancy & expansion.
- **LCD Display & Monitoring**
Intuitive LCD panel for real-time status monitoring.
- **Broad Voltage Range**
Wide input range suitable for unstable power environments.
- **Reliable & Rugged Design**
Ideal for Data Centers, IT Infrastructure, Industrial & Commercial Applications

Major Industrial Clients

Trusted by Leading Industrial & Manufacturing Companies

Cement & Heavy Industry

- ▶ DG Cement – Hub Plant
- ▶ DG Cement – DG Khan Plant

Textile & Manufacturing

- ▶ Colony Textile Mills Ltd (CTM)
- ▶ Mahmood Maqbool Mills Ltd
- ▶ Ahmed Fine Weaving Ltd

Fertilizer & Chemical Industry

- ▶ KSB Pumps Company Ltd – Taxila
- ▶ Elmetec Pvt Ltd
- ▶ Tritex Engineering Company Pvt Ltd

Packaging & Industrial Products

- ▶ STARLINE Poly Packaging Pvt Ltd
- ▶ KCEBER Industries
- ▶ Jubilee Corporation

Fertilizer & Manufacturing

- ▶ Fatima Fertilizer – Sahiwal
- ▶ Kundian Chemical Industries

Engineering & Industrial Manufacturing

- ▶ KSB Pumps Company Ltd – Taxila
- ▶ Elmetec Pvt Ltd
- ▶ Quality Engineering Pvt Ltd
- ▶ Venture Engineering Pvt Ltd
- ▶ Myco Engineering Pvt Ltd
- ▶ DINSON Pvt Ltd
- ▶ Transfopower Industries Pvt Ltd
- ▶ Technical Engineering

Developers & Construction Sector Clients

Trusted by Leading Housing Societies, Developers & Builders

Housing Societies

- ▶ DHA Lahore
- ▶ DHA Multan
- ▶ DHA Bahawalpur
- ▶ Capital Smart City Islamabad
- ▶ Etihad Housing Society Rahim Yar Khan

Developers & Builders

- ▶ Capital Builders Islamabad
- ▶ Royal Developers & Builders Lahore
- ▶ Bodla Builders Multan
- ▶ Rehman Construction
- ▶ Technical Associates (Developers)

Commercial Developments

- ▶ Mall of Multan
- ▶ Mall of Sargodha
- ▶ Imperial Mall – Paragon City
- ▶ Makki Complex Lahore
- ▶ Gatwala Commercial Hub Faisalabad
- ▶ Zeta Mall Islamabad
- ▶ Sharif Complex
- ▶ Crystal Arcade Multan

Power Utilities & Infrastructure

- ▶ MEPCO – Multan Electric Power Company
- ▶ GEPCO – Gujranwala Electric Power Company
- ▶ DHA Lahore
- ▶ DHA Multan

Experience with EPC Contractors

Trusted by Leading Construction, Engineering, and MEP Contractors

Major Construction & EPC Firms

- ▶ Frontier Works Organization (FWO)
- ▶ Hebb Construction Ltd
- ▶ Xinjiang Beixin Construction
- ▶ China Railway First Group Co. Ltd
- ▶ China State Construction Engineering
- ▶ Corporation DP World Abdul Razzaq & Co. Pvt Ltd
- ▶ CGGC–GRC JVDexcon Engineering

Electrical & MEP Contractors

- ▶ TES Engineering
- ▶ Technical Associates Pakistan Pvt Ltd
- ▶ Quality Engineering Pvt Ltd
- ▶ Synergy Elektrik Pvt Ltd Silicon Engineering Pvt Ltd
- ▶ Netacon Technologies
- ▶ Texelal Enterprises
- ▶ Allied Construction Company Pvt Ltd

Engineering Consultants & EPC Contractors

Trusted by Leading Construction, Engineering, and MEP Contractors

Major Construction & EPC Firms

- ▶ Pakistan Broadcasting Corporation
- ▶ Karachi Port Trust (KPT)
- ▶ National Highway Authority (NHA)
- ▶ Frontier Works Organization (FWO)

Power Utilities & Infrastructure

- ▶ MEPCO – Multan Electric Power Company
- ▶ GEPCO – Gujranwala Electric Power Company
- ▶ DHA Lahore
- ▶ DHA Multan

Healthcare Institutions

- ▶ THQ Hospital Taunsa
- ▶ Children Complex Multan
- ▶ Nishtar Hospital Multan
- ▶ Services Hospital Lahore
- ▶ Buch International Hospital
- ▶ Mukhtar A. Sheikh Memorial Welfare Hospital

Flagship Projects

Major Projects Delivered by United Switchgear Company



Sout ul Quran Broadcast System

Client:

- ▶ Pakistan Broadcasting Corporation

Scope of Work:

- ▶ Supply and commissioning of high-power broadcast transmission systems, including transmitter infrastructure and antenna network.

Equipment Supplied:

- ▶ High Power Transmitters
- ▶ Digital Audio Processors
- ▶ European Broadcast Antennas
- ▶ Radio Transmission Towers

Project Period:

- ▶ 2025 ~ 2026

Safe City Project – Faisalabad

Client:

- ▶ Safe City Project

Scope of Work:

- ▶ Design, supply and installation of internal and external electrical infrastructure for Safe City control buildings.

Equipment Supplied:

- ▶ 2 x 1500 KVA Dry Type Transformers
- ▶ Bus Tie Duct (BTD) Systems
- ▶ LV / MV Power Distribution Panels
- ▶ 1000 KVA Diesel Generator Sets

Project Period:

- ▶ 2025

Motorway Electrification M4 & M5

Client:

- ▶ CGGC, GRC, BEXIN, CRFG China State Construction

Scope of Work:

- ▶ Complete electrical infrastructure for motorway toll plazas and interchanges.

Equipment Supplied:

- ▶ Power Transformers
- ▶ Diesel Generator Sets
- ▶ LT Distribution Panels
- ▶ Lighting Poles and Cabling Systems

Project Period:

- ▶ 2019 ~ 2022

Flagship Building Electrification Projects



Hospitals Electrification Projects (Clients)

- ▶ Bakht International Hospital, Multan
- ▶ Life Care Hospital, Peshawar
- ▶ Services Hospital, Lahore
- ▶ THQ Hospital, Taunsa

Scope of Work:

- ▶ Electrification of Building Infrastructure

Project Period:

- ▶ 2020 ~ 2024



Commercial Malls Electrification (Clients)

- ▶ Zeta Mall & Apartments
- ▶ Mall of Sargodha
- ▶ Mall of Multan
- ▶ Imperial Mall, Lahore.
- ▶ Sharif Complex
- ▶ Crystal Arcade



Housing Societies Electrification (Clients)

- ▶ Eighteen Islamabad
- ▶ Capital Smart City Islamabad
- ▶ DHA Multan
- ▶ Royal Orchard Multan
- ▶ Kiber Town
- ▶ Karim Town
- ▶ Etihad Housing Rahim Yar Khan

Project Period:

- ▶ 2020 ~ 2025





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Profile