

CORPORATE PRESENTATION

EXPLORING THE FUTURE





About Gvd

WHO ARE WE?

- * GVD brand has began its journey in energy sector at the year of 2003.
- * GVD began producing its own boards in 2007 with its machinery investment for steel structure fabrication.
- * In 2008, GVD got its 4000 A / 80 kA full type test certificate and started to take its place in international projects.
- * In 2011, GVD produced the first fully withdrawable MCC panels in Turkiye.

About Gvd

WHO ARE WE?

- * In 2012, as a result of long-term research and development, GVD invested in a roll-form line and started the production of specially designed closed-type profile.
- * In 2013, got full type test certificate up to 6300 A / 120 kA from Kema/Dekra laboratories.
- * Again in 2013, GVD performed internal arc fault and seismic qualification tests. By completing its all certification investments, GVD reached to equivalent position among its international competitors.



About Gvd

OUR VISION

With the understanding of total quality management; meeting customer expectations in highest level in order to achieve sustainable growth to make GVD a worldwide brand.



About Gvd

OUR MISSIONS

- * To be a company; who uses its sources effectively to provide the best service with optimum cost.
- * Gives necessary importance to research and development.
- * Brings new products to the sector and follows technological developments.
- * Achieves customer satisfaction in highest level.
- Creates educated and qualified manpower, keeping in mind that the best investment is “Manpower”.
- * Brings added value to its country with social and environmental responsibility.



GVD in The World

GVD, WORLDWIDE IN 5 CONTINENTS OVER 60 COUNTRIES!

- * South America
- * Middle East
- * Europa
- * Africa
- * Asia

GVD



Sectors We Serve

FIELD OF ACTIVITIES OF GVD

We offer quality solutions to our business partners who aim for perfect results with our products located in buildings and facilities in many parts of the world. We are adding new successes to our successes with our references that always aim for perfection and better.

- * Oil – Gas
- * Energy Substations
- * Transportation
- * Industrial Facilities
- * Waste Water and Drinking Water Treatment Projects
- * Hospitals
- * Airports
- * High-End Buildings





Exhibitions

INTERNATIONAL EXHIBITIONS GVD PARTICIPATED

Some of the international fairs we attended;

- * Middle East Electricity Dubai
- * Hannover Messe Germany
- * FIEE Sao Paulo Brasil
- * WIN – World Of Industry Turkiye
- * Saudi Elenex Riyad S. Arabia
- * Electramining Johanessburg S. Africa
- * Elektro Moskova Russia
- * Electric Power Renewable Energy Indonesia
- * Elenex Erbil Iraq
- * Electro Egypt
- * Big 4 Show Libya
- * Elcon Ukraine



Some of Our Major Projects

GARAGOEL OIL DRILLING PLATFORM TURKMENISTAN

Our brand was admired and approved by Foster Wheeler consultant company. GVD panels were preferred for Garagoel Oil Drilling Platform which is in Caspian Sea, Turkmenistan. We are appreciated to be preferred at this qualified projects.



Some of Our Major Projects

LIMAK ENERGY, HAMİTABAT FOSSIL FUEL PLANT KIRKLARELİ, TURKİYE

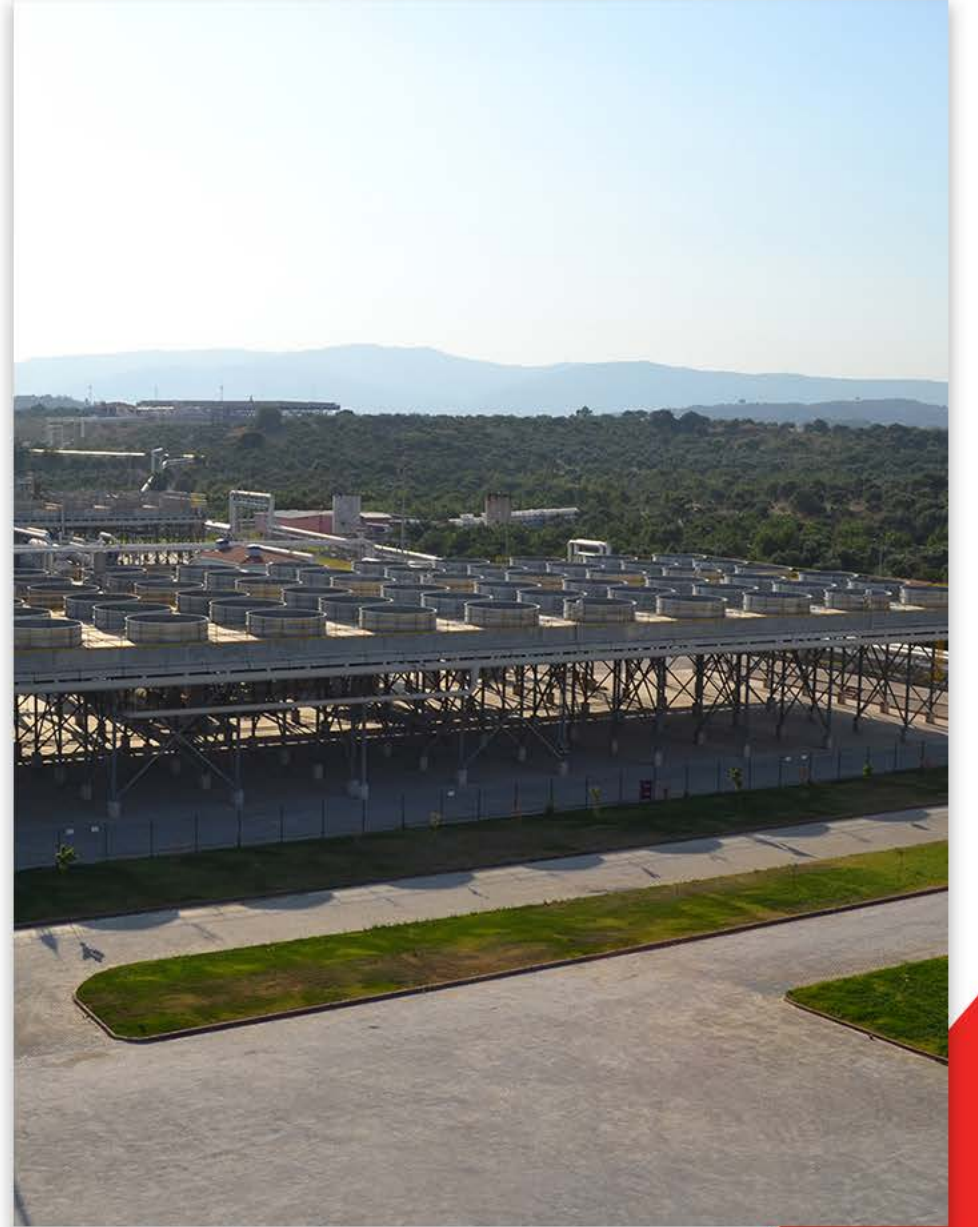
Hamitabat Fossil Fuek Plant, one of the symbols of Turkiye's growing role in sustainable energy production, chose PREMIUM-XW, Fully Withdrawable MCC Technology for uninterrupted power.



Some of Our Major Projects

MAREN ENERGY GEOTHERMAL POWER PLANT AYDIN, TURKİYE

Maren Enerji Geothermal Power Plant in Aydın, one of the important centers of geothermal energy in Türkiye, chose GVD for uninterrupted power and high performance.



Some of Our Major Projects

METRO ISTANBUL, TURKİYE

GVD's high-performance and durable products add strength to the metro lines of Istanbul, one of the world's important metropolises and a world city.



Some of Our Major Projects

BOTAS MARMARAERELİSİ LNG TERMINAL TEKİRDAĞ, TÜRKİYE

We add power to the business processes of BOTAŞ, one of the largest companies in Türkiye, "Marmaraereglisi LNG (Liquefied Natural Gas) Terminal" in Tekirdağ, with Fully Withdrawable MCC Panel Systems (WMCC).



Some of Our Major Projects

PETKIM ETHYLENE FACTORY IZMIR, TURKIYE

GVD is also the choice of the ethylene facility of PETKİM, one of the most important and largest refineries in Türkiye. We contribute to the uninterrupted power of this facility where our Full Drawer Systems (WMCC) product PREMIUM - XW is used.



Some of Our Major Projects

TURKISH AIRLINES SIMULATION CENTER, ISTANBUL TURKİYE

The simulation center of Turkish Airlines, one of the world's largest airline brands, also prefers "GVD quality".



Some of Our Major Projects

TAIF KING SALMAN SPECIALIZED HOSPITAL PROJECT, SAUDI ARABIA

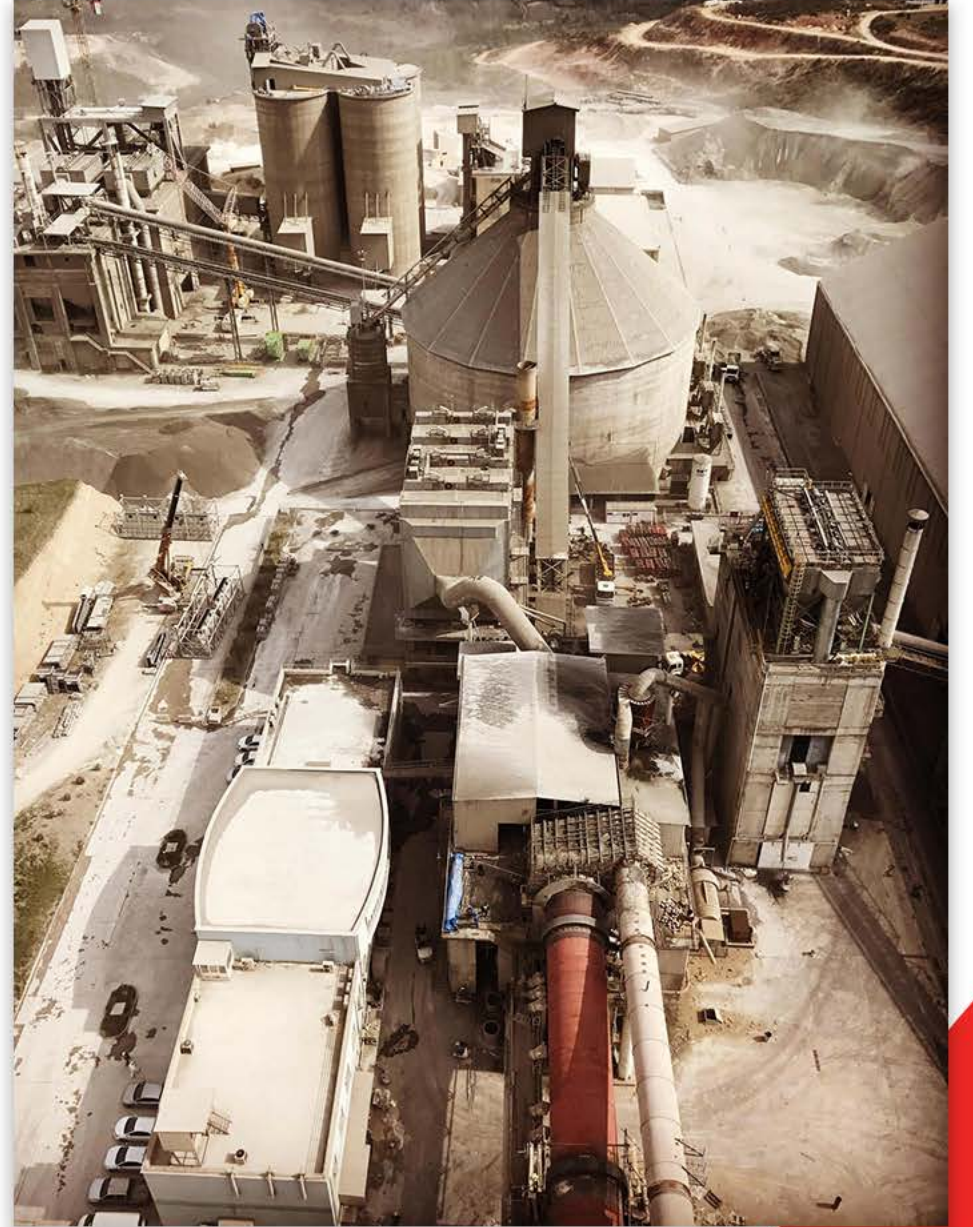
We produced 41 panels consisting of a total of 278 columns and 290 drawer outlets for the King Salman Hospital project in Taif, Saudi Arabia.



Some of Our Major Projects

AŞKALE CEMENT PLANT, BİLECİK TÜRKİYE

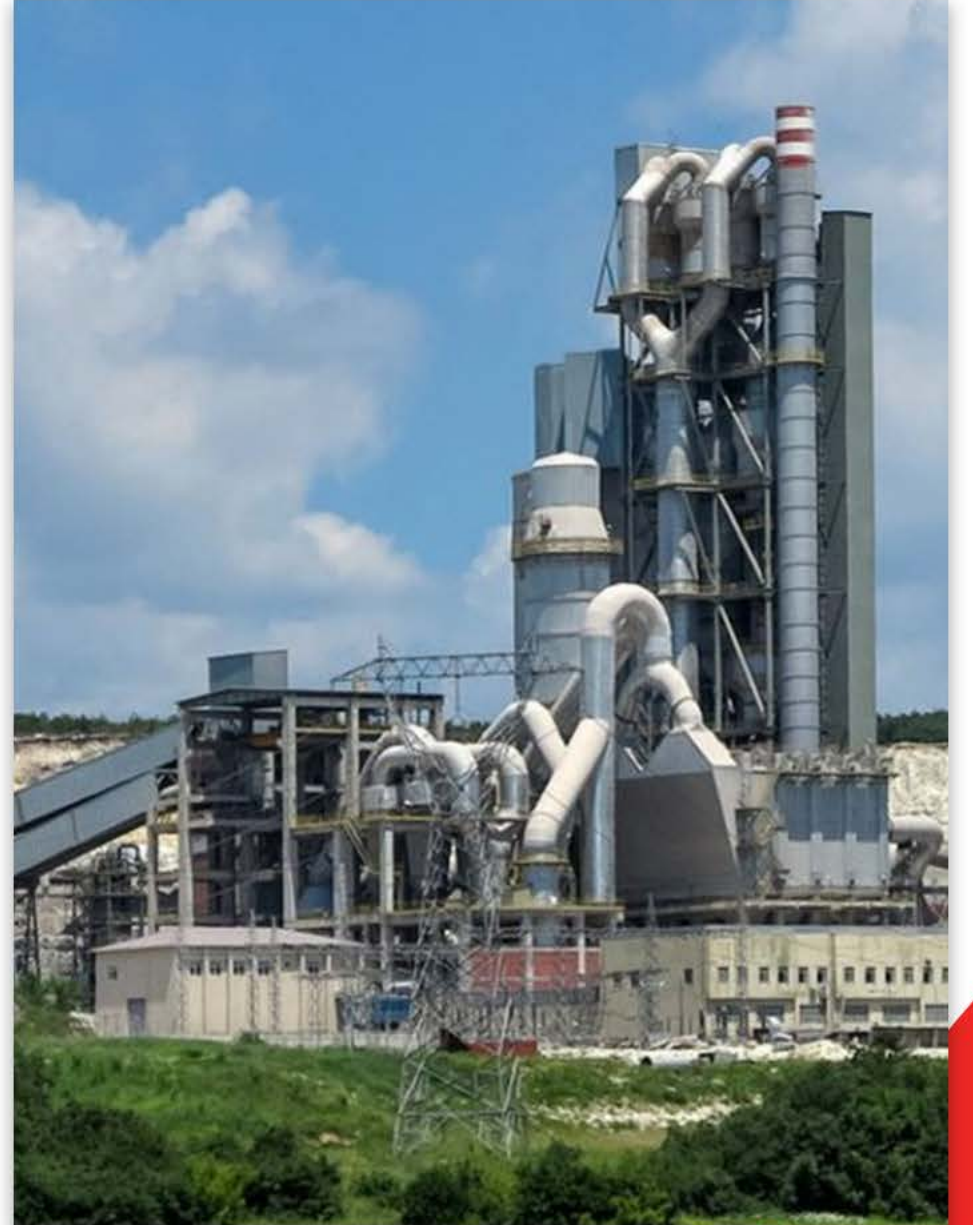
Our PREMIUM - XW model, one of our high-performance products with Fully Withdrawable Technology, contributes to the uninterrupted operation of this project and adds power to business processes.



Some of Our Major Projects

TRAÇİM CEMENT PLANT, KIRKLARELİ TURKİYE

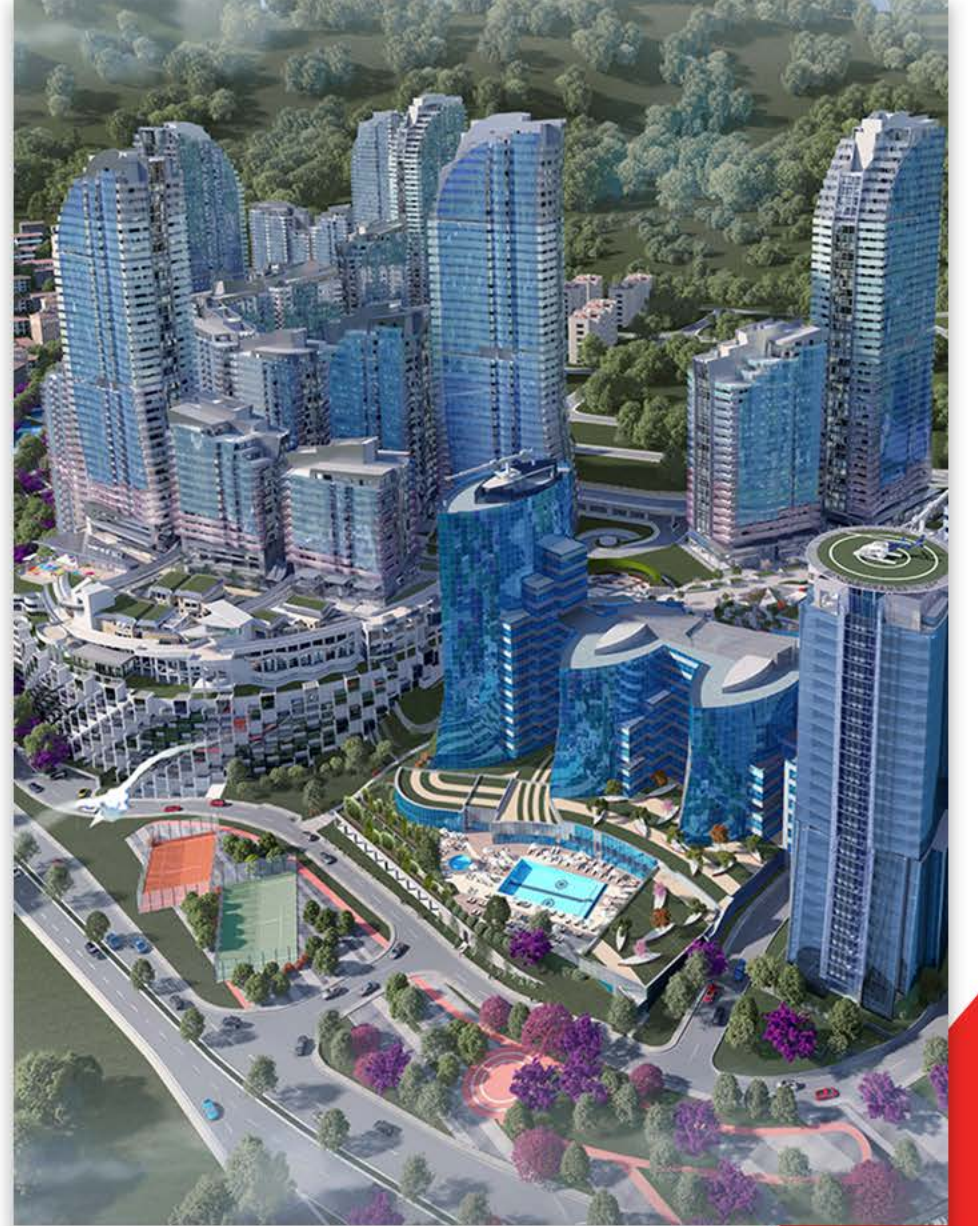
SOYAK Holding TRAÇİM Cement factory Withdrawable MCC Panels were projected by GVD Group.



Some of Our Major Projects

AĖAOĖLU 1453 WELLNESS CENTER, ISTANBUL TURKİYE

We are happy to contribute to the AĖaoĖlu Maslak 1453 project, which attracts attention with its social facilities as well as its impressive architecture, with our high-performance and durable products.



Some of Our Major Projects

META ABO BREWERY, SEBETA ETHIOPHIA

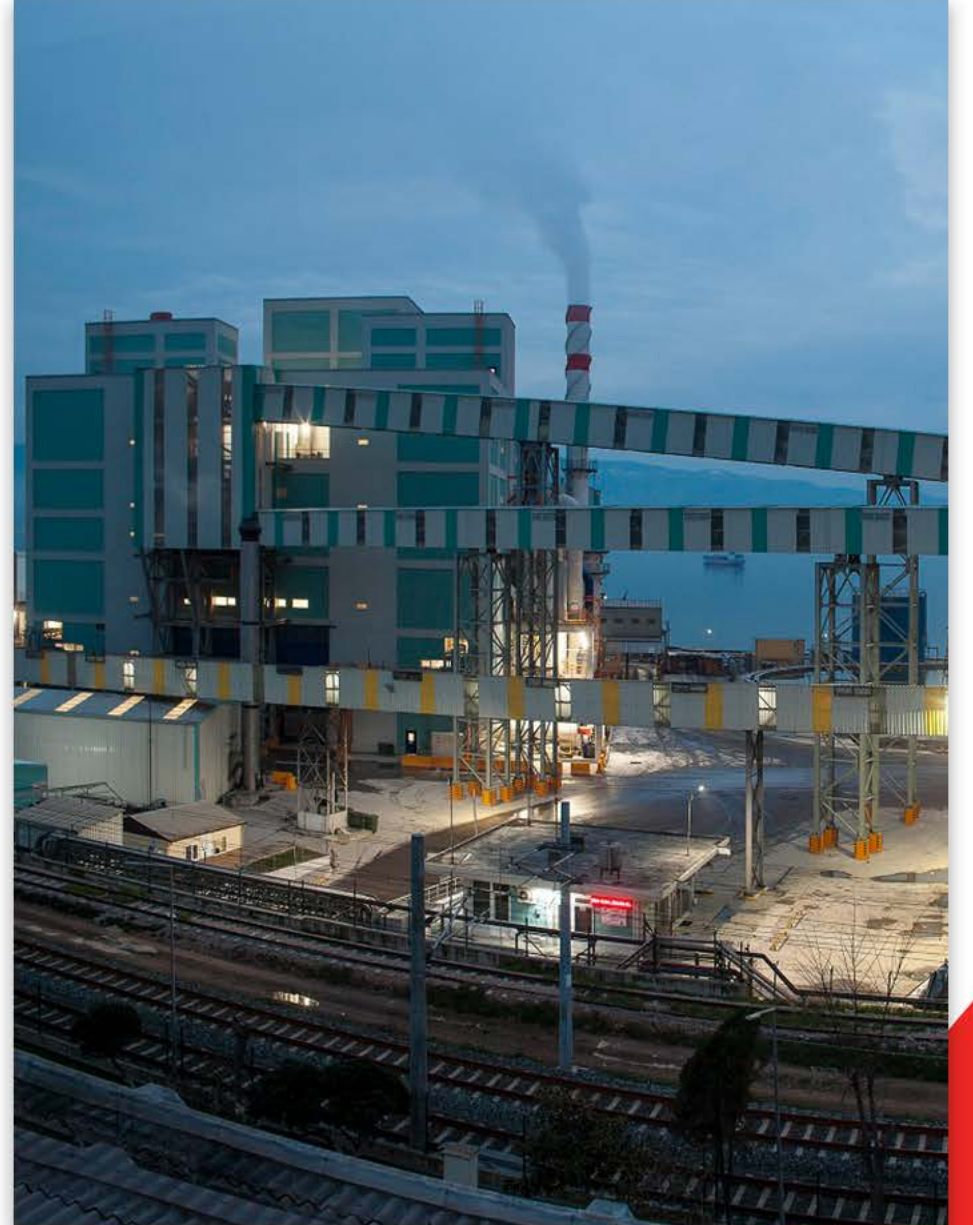
We are happy to contribute to Meta Abo Brewery, one of the important facilities in Ethiopia, with our high-performance and durable products.



Some of Our Major Projects

GUBRETAS FACTORY, KOCAELİ TÜRKİYE

We are happy to contribute to the Gubretas Factory, one of the important and largest facilities in Türkiye, with our high-performance and durable products.



Some of Our Major Projects

NABEREZHNYA TOWER, MOSCOW RUSSIA

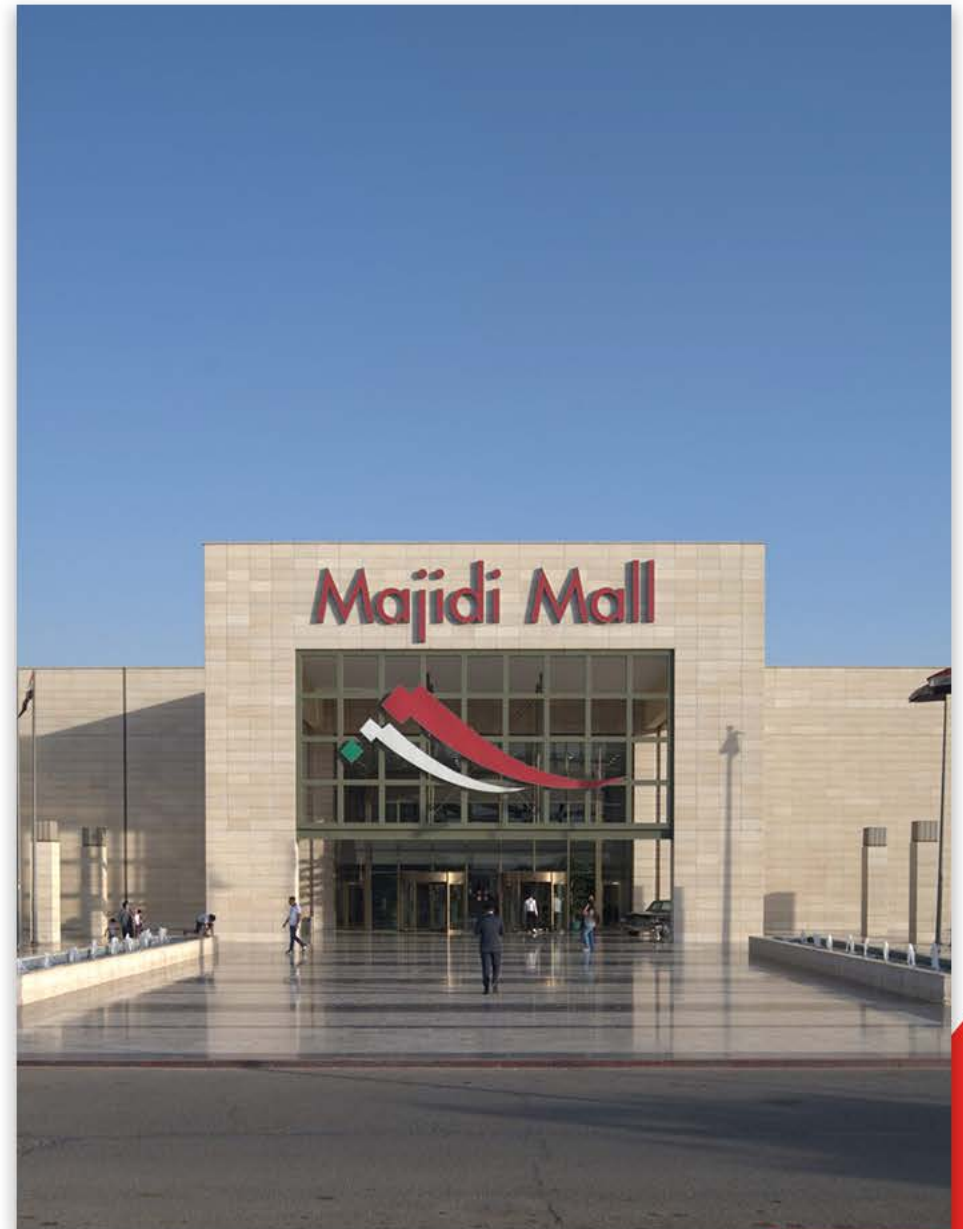
We are pleased to contribute to the Naberezhnaya Tower project, one of the tallest buildings in Russia that draws attention with its impressive architecture, with our high-performance and durable products.



Some of Our Major Projects

MAJIDI MALL, ERBIL IRAQ

We are happy to contribute to the Majidi Mall Project, one of the important shopping centers of the region with its high-performance and durable products, which has a lot of visitors in Erbil.



How We Produce

STEEL FABRICATION FACILITY

- * Phosphating
- * Oil Removal
- * Powder Painting with Robotic System
- * Different Color Options



How We Produce STEEL FABRICATION FACILITY



GVD

How We Produce

ELECTROSTATIC POWDER PAINTING LINE

- * Phosphating
- * Oil Removal
- * Powder Painting with Robotic System
- * Different Color Options



How We Produce

ROLLFORM LINE



How We Produce

CLOSED TYPE PROFILE STRUCTURE

- * Completely modular
- * 27 bendings
- * Maximum strength and rigidity
- * Availability of flat packing
- * Protection class up to IP 65
- * Form separation up to Form 4B, Type 7
- * Esthetic outlook



GVD

How We Produce **DESIGN**

- Experienced and skilled engineering team
- Solutions in accordance with customer request and expectations
- Technical support
- Design in accordance with IEC and DIN standards
- Temperature rise limits calculation in accordance with IEC 61439-2 standards
- Mechanical and thermal resistance calculation in accordance with IEC 60865
- Site calculations according to customer request and international standards
 - * Capacitive current calculation
 - * Short circuit calculation
 - * Power factor calculation



How We Produce **TEST AND INSPECTION**

Factory Tests According to IEC-60439 and IEC 61439 Standards

Routine Tests

- * Verification of the degree of protection of the enclosure
- * Verification of clearances and creepage distances
- * Protection against electric shocks and verification of the integrity of protective circuits
- * Verification of the incorporation of built-in components
- * Verification of the internal electrical circuits and connections



How We Produce **TEST AND INSPECTION**

Factory Tests According to IEC-60439 and IEC 61439 Standards

- * Verification of the terminals for external conductor
- * Verification of the mechanical operation
- * Verification of the dielectric characteristics
- * Verification of connection, operation performance and function
- * Primary and secondary injection tests
- * Overload tests
- * Relay and circuit breaker adjustments



How We Produce **CERTIFICATE**

Full Type Test - 2008

IEC-60439-1

Up to 4000 A

Up to 80 kA / 1 sec

Up to Form 4B

ICMET / Romania

Full Type Test - 2013

IEC-61439-2

6300 A

Up to 120 kA / 1 sec

Up to 65 kA / 3 sec

Uimp = 12 kV

Up to Form 4B

Dekra / Holland

Full Type Test - 2014

IEC-61439-2

Up to 4000 A Withdrawable Mcc

Up to 80 kA / 1 sec

Uimp = 12 kV

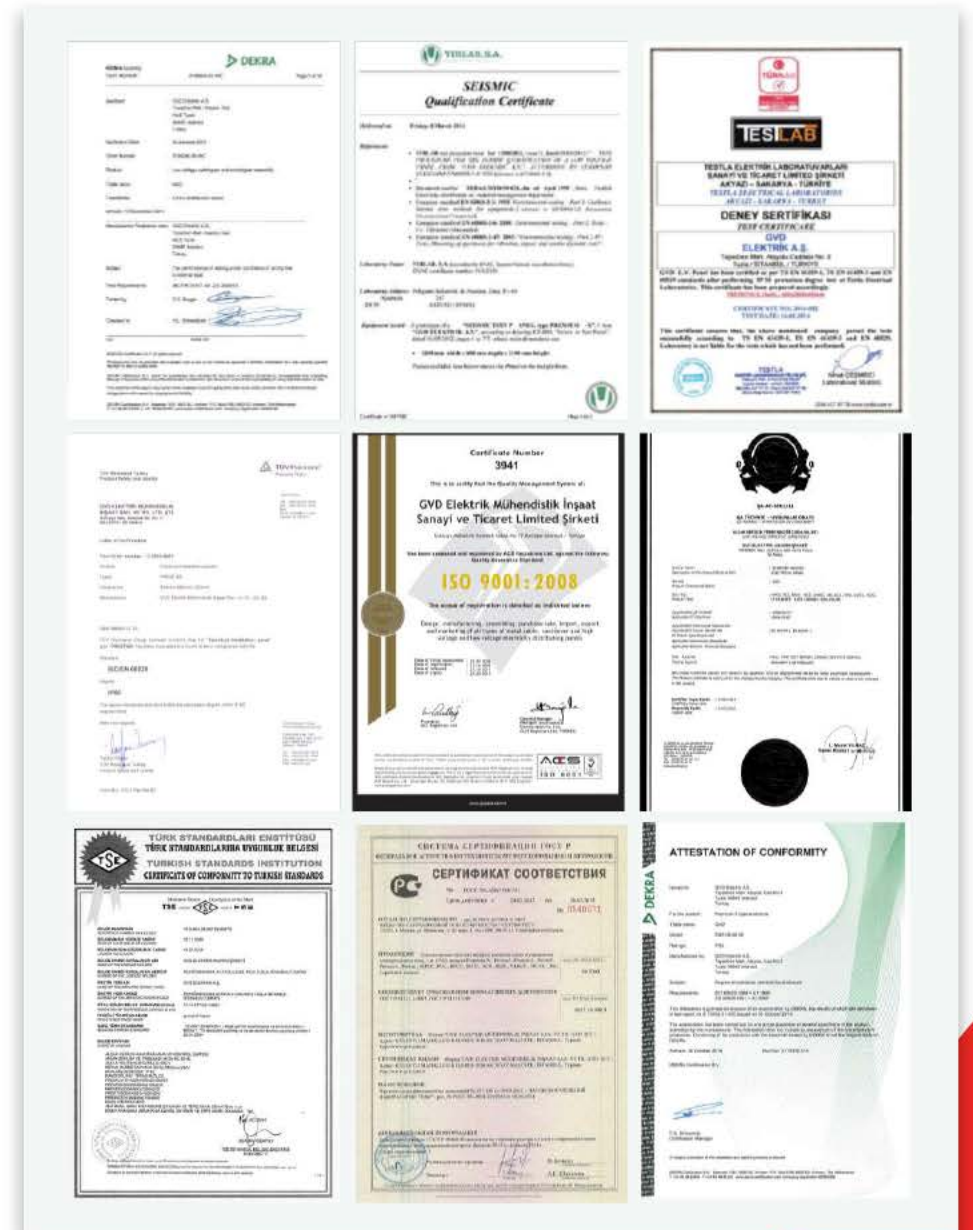
Up to Form 4B

GVD



How We Produce CERTIFICATE

- * Internal Arc Test Certificate- IEC 61641
- * Seismic Qualification Test Certificate – IEC 60068- 3-3
- * IP 55 and IP 66 Protection Class Certificates – IEC 60529
- * ISO 9001
- * CE Conformity 2006/95 EC
- * Marine Certificate
- * TSE 61439-2
- * GOST- R



How We Produce IT APPLICATIONS

- * Production Follow-up ERP / MRP
- * Financial System Uyum Soft
- * Stock Control System ERP / MRP
- * Project Design E - Plan / Autocad



Product and Solutions

PREMIUM - X

- * Trustable
- * Esthetic, decorative and adaptable to every environment
- * Rigid and strong construction
- * Extendible, suitable for future expansion
- * High quality and economic product



Product and Solutions

PREMIUM - X

PREMIUM-X offers extraordinary durability thanks to its specially designed profile structure consisting of 27 bendings. These profiles provide the product with maximum strength and rigidity properties, ensuring reliable performance in harsh working conditions.

The product stands out with the quality of the materials used. A solid foundation was created by using galvanized steel in its frame, and a combination of durability and aesthetics was achieved with steel material and electrostatic powder paint on the doors, covers and mounting plates.

The profile system solves door hinges, cabinet assembly and rear/side door fixing processes with a single product. This feature speeds up the assembly process and provides convenience to the user.



Product and Solutions

PREMIUM - X

- * High operator and system security
- * Flexible solutions with modular busbar system
- * Full current carrying capacity with non drilling busbar connection system
- * Optimum size system solutions with front, rear and side busbar systems
- * Fixed, plug-in and draw out type circuit breaker installation capability
- * Arc release covers to enable personnel safety
- * Busbar cross section calculation according to operating conditions and busbar placement
- * Cable and busbar entry from top and bottom
- * Rear and front access
- * Ventilation system with high efficiency
- * Fast track delivery
- * Production with experienced and qualified design and assembly team
- * High capacity



Product and Solutions

PREMIUM - X

PRODUCT FEATURES

PREMIUM-X cabinets are one of our free standing type system solutions.

- 01 Structure consist of 400, 600, 800, 1000 mm depth system solutions with single module. Double systems should be used for higher depths.
- 02 Modules have different alternatives such as 300, 400, 600, 800, 1000, 1200 mm width; 1400, 1600, 1800, 2000, 2200 mm height.
- 03 Provides different solutions from IP31, IP43, IP55 up to IP65 protection degree.



Product and Solutions

PREMIUM - X

TECHNICAL SPECIFICATION



Standards	IEC 60439-1 / IEC 61439-2
Test of Antiseismic	IEC 60068-3-3
Test of Vibration	IEC 60068-3-3
Area of Usage	Indoor and Outdoor
Grid Type	TN-C, TN-S, TN C-S, TT, IT
Voltage, Un	AC 400V
Rated Service Voltage, Ue	Up to 690V
Rated Insulation Voltage, Ui	Up to 1000V
Rated Impulse Withstand Voltage	8 kV / 12 kV
Overvoltage Category	III / IV
Pollution Degree	3
Rated Busbar Current	Up to 6300A
Rated Short-time Short-circuit withstand current	Up to 120kA
Rated Peak Short-circuit Current	264 kA
Rated Frequency	50-60 Hz
Segregation	Up to Form 4b
Degree of Protection	Up to IP65
Mechanical Resistance to Impacts	IK10
Ambient temperature	35 (24 h)
Frame	Galvanized Steel
Frame Thickness	1.2 mm
Doors and Covers	Steel, Electrostatic Powder Paint
Door Thickness	Sides, Back, Lower and Top Cover; 1.2 mm / Front; 2 mm
Installation Plates	Galvanized Steel
Color	RAL 7035

Product and Solutions

PREMIUM - E

- * PREMIUM-E cabinets are one of our free-standing system solutions.
- * They feature a modular design and mounting options available for ABB, Legrand, Eaton, Schneider, and Siemens switchgear.
- * The system allows for vertical and horizontal panel assembly for these 5 different switchgear brands.



GVD

Product and Solutions

PREMIUM - E

PREMIUM-E panels are a technologically integrated and multifunctional solution that opens a new era in low-voltage switchgear systems.

Numerous product advantages ensure superior performance and user satisfaction in industrial facilities and energy projects.

The cabinet structure is constructed of 2 mm thick galvanized sheet metal and is folded 5 times. Necessary precautions have been taken and documented to ensure ground continuity of contacting parts.

PREMIUM-E panels include mounting types suitable for products from leading switchgear manufacturers such as ABB, Legrand, Eaton, Schneider, and Siemens. This allows the switchgear and all its accessories to be mounted according to various mounting types. The modular design ensures flexible use in a variety of projects.



Product and Solutions

PREMIUM - E

PRODUCT FEATURES

PREMIUM-E cabinets are one of our free-standing system solutions.

- 01 The design consists of single-module systems with depths of 400, 600, 800, and 1000 mm. For greater depth, two-module systems should be used.
- 02 The modules have different width options: 300, 400, 600, 800, 1000, 1200 mm; height: 1400, 1600, 1800, 2000, 2200 mm.
- 03 Various solutions are available with protection ratings from IP31, IP43 to IP55.



Product and Solutions

PREMIUM-E

TECHNICAL SPECIFICATION



Standards	IEC 60439-1 / IEC 61439-2
Test of Antiseismic	IEC 60068-3-3
Test of Vibration	IEC 60068-3-3
Area of Usage	Indoor and Outdoor
Grid Type	TN-C, TN-S, TN C-S, TT, IT
Voltage, Un	AC 400V
Rated Service Voltage, Ue	Up to 690V
Rated Insulation Voltage, Ui	Up to 1000V
Rated Impulse Withstand Voltage	8 kV / 12 kV
Overvoltage Category	III / IV
Pollution Degree	3
Rated Busbar Current , In	Up to 4000A
Rated Short-time Short-circuit withstand current, Icw	Up to 80kA
Rated Peak Short-circuit Current, Ipk	176 kA
Rated Frequency	50-60 Hz
Segregation	Up to Form 2b
Degree of Protection	Up to IP55
Mechanical Resistance to Impacts	IK10
Ambient temperature	35 (24 h)
Frame	Galvanized Steel
Frame Thickness	2 mm
Doors and Covers	Steel, Electrostatic Powder Paint
Door Thickness	Sides, Back, Lower and Top Cover; 1.2 mm / Front; 2 mm
Installation Plates	Galvanized Steel
Color	RAL 7035

Product and Solutions

PREMIUM - XW

- * **Fully withdrawable MCC systems**

- * Contact device with a patented, innovative, and arc-safe pressure contact
- * Arc-safe vertical busbar section
- * Contact device with arc-fault protection
- * Solution for up to 22 kW in a single 75 mm wide module
- * Intelligent control solutions for switchgear (MCC)
- * Cost-effective solutions with a compact design
- * Frame design suitable for industrial environments
- * Modular design



Product and Solutions

PREMIUM - XW

Premium - XW is the pioneer of our freestanding freestanding panel systems. It combines advanced technology and aesthetic design, allowing you to manage your electrical panels safely.

Fully withdrawable technology in Motor control Centres (MCC) offers many advantages, especially where malfunctions must be rectified without interrupting operation.

Premium-XW offers technical excellence that exceeds industry standards, developed in full compliance with the IEC 61439-2 standard. Withdrawable system technology provides rapid resolution of malfunctions, can be easily installed and removed, and keeps process interruption to a minimum.



Product and Solutions

PREMIUM - XW

PRODUCT FEATURES

PREMIUM-XW cabinets are one of our free standing type system solutions.

- 01 Structure consist of 600mm depth system solutions with single module. Busbar compartment depth should be limited as 600 mm for higher depths.
- 02 Modules have different alternatives such as 400, 600 mm width; 1400, 1600, 1800, 2000, 2200 mm height.
- 03 Module and busbar compartments should be 600 mm and cable compartments should be 400 mm. Provides different solutions from IP31, IP43, up to IP55 protection degree.



Product and Solutions

PREMIUM - XW

TECHNICAL SPECIFICATION



Standards	IEC 61439-2
Test of Antiseismic	IEC 60068-3-3
Test of Vibration	IEC 60068-3-3
Area of Usage	Indoor
Grid Type	TN-C, TN-S, TN C-S, TT, IT
Voltage, Un	AC 400V
Rated Service Voltage, Ue	Up to 690V
Rated Insulation Voltage, Ui	Up to 1000V
Rated Impulse Withstand Voltage	8 kV
Overvoltage Category	III / IV
Pollution Degree	3
Rated Busbar Current , In	Up to 6300A
Vertical Busbar Rated Current, In	Up to 1400A
Rated Short-time Short-circuit withstand current, Icw	Up to 120kA
Vertical Rated Short-time Short-circuit withstand current, Icw	Up to 85kA
Rated Peak Short-circuit Current, Ipk	264kA
Rated Frequency, f	50-60 Hz
Segregation	Up to Form 4b
Degree of Protection	Up to IP55
Mechanical Resistance to Impacts	IK10
Ambient temperature	35 (24 h)
Frame and Installation Plates	Galvanized Steel
Doors and Covers	Steel, Electrostatic Powder Paint
Color	RAL 7035

Product and Solutions

PREMOD & PREMOD-S

- * Wall mounted and floor standing type enclosure systems
- * Installation kits suitable to 5 different switchgear brands



Product and Solutions

PREMOD

Premod panels designed according to Low Voltage Switchgear Systems IEC 61439-2.

Premod cabinets with specially designed corners, provides several advantages to our customers about quality and easy installation.

Even though it has a modular structure, due to the gasket channels on the parts at top, bottom and sides; protection degree is available up to IP55. Due to the modular structure Premod cabinets are available in flat pack for shipments. Beside all these, it provides an esthetical outlook.

01

Structure consist of 250 mm depth system solutions with single module.

02

Provides different solutions from IP31, IP43 up to IP55 protection degree.

03

Modules have different alternatives such as 400, 600, 800 mm width; 400, 600, 800, 1000, 1200 mm height for wall mounted types and 1400, 1600, 1800, 2000, 2200 mm height for free standing types.

GVD



Product and Solutions

PREMOD

TECHNICAL SPECIFICATION



Standards	IEC 61439-2
Area of Usage	Indoor
Grid Type	TN-C, TN-S, TN C-S, TT, IT
Voltage, Un	AC 400V
Rated Service Voltage, Ue	Up to 690V
Rated Insulation Voltage, Ui	Up to 1000V
Rated Impulse Withstand Voltage	8 kV
Overvoltage Category	III / IV
Pollution Degree	3
Rated Current, In	Up to 630A
Rated Short-time Short-circuit withstand current, Icw	Up to 50kA
Rated Peak Short-circuit Current, Ipk	110 kA
Rated Frequency, f	50-60 Hz
Segregation	Up to Form 2 B
Degree of Protection	Up to IP55
Mechanical Resistance to Impacts	IK10
Ambient temperature	35 (24 h)
Frame	Galvanized Steel
Body Thickness	1 mm
Doors and Covers	Steel, Electrostatic Powder Paint
Door Thickness	1.2 mm / Internal Parts; 2 mm
Installation Plates	Galvanized Steel
Color	RAL 7035

Product and Solutions

PREMOD-S

Premod-S cabinets with specially designed corners, provides several advantages to our customers about quality and easy installation.

Even though it has a modular structure, due to the gasket channels on the parts at top, bottom and sides; protection degree is available up to IP55.

Premod-S panels designed according to Low Voltage Switchgear Systems IEC 61439-2. Has a modular structure and mounting types are available for ABB ,Legrand, Eaton, Schneider and Siemens switchgears. The system enables panel assembly by the vertical and horizontal mounting types of these 5 different switchgear brands.

01

Structure consist of 250 mm depth system solutions with single module.

02

Provides different solutions from IP31, IP43 up to IP55 protection degree.

03

Modules have different alternatives such as 400, 600, 800 mm width; 400, 600, 800, 1000, 1200 mm height for wall mounted types and 1400, 1600, 1800, 2000, 2200 mm height for free standing types.



Product and Solutions

PREMOD-S

TECHNICAL SPECIFICATION

Standards	IEC 61439-2
Area of Usage	Indoor
Grid Type	TN-C, TN-S, TN C-S, TT, IT
Voltage, Un	AC 400V
Rated Service Voltage, Ue	Up to 690V
Rated Insulation Voltage, Ui	Up to 1000V
Rated Impulse Withstand Voltage	8 kV
Overvoltage Category	III / IV
Pollution Degree	3
Rated Current	Up to 630A
Rated Short-time Short-circuit withstand current	Up to 50kA
Rated Peak Short-circuit Current	110 kA
Rated Frequency	50-60 Hz
Segregation	Up to Form 2b
Degree of Protection	Up to IP55
Mechanical Resistance to Impacts	IK10
Ambient temperature	35 (24 h)
Frame	Galvanized Steel
Doors and Covers	Steel, Electrostatic Powder Paint
Installation Plates	Galvanized Steel
Color	RAL 7035



Product and Solutions

PRESTAB

- * **Wall Mounted Type Empty Cabinet Systems**
- * Monoblock structure
- * Indoor / Outdoor type



Product and Solutions

PRESTAB

Prestab panels designed according to Low Voltage Switchgear Systems IEC 61439-2.

Prestab cabinets have a monoblock welded structure. Due to the bending and welding operations on the module structure, it has a protection degree up to IP66.

Has a monoblock structure and mounting types are available for ABB, Legrand, Eaton, Schneider and Siemens switchgears. The system enables panel assembly by the vertical and horizontal mounting types of these 5 different switchgear brands.

01

Structure consist of 150, 200, 250, 300, 400 mm depth system solutions with single module.

02

Provides different solutions from IP31, IP43, IP55, up to IP66 protection degree.

03

Modules have different alternatives such as 200, 300, 400, 500, 600, 700, 800, 1000, 1200 mm width; 300, 400, 500, 600, 700, 800, 1000, 1200, 1400 mm height.

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Product and Solutions

PRESTAB

TECHNICAL SPECIFICATION

Standards	IEC 61439-2
Area of Usage	Indoor and Outdoor
Grid Type	TN-C, TN-S, TN C-S, TT, IT
Voltage, Un	AC 400V
Rated Service Voltage, Ue	Up to 690V
Rated Insulation Voltage, Ui	Up to 1000V
Rated Impulse Withstand Voltage	8 kV
Overvoltage Category	III / IV
Pollution Degree	3
Rated Current, In	Up to 630A
Rated Short-time Short-circuit withstand current, Icw	Up to 50kA
Rated Peak Short-circuit Current, Ipk	110 kA
Rated Frequency, f	50-60 Hz
Segregation	Up to Form 2 B
Degree of Protection	Up to IP66
Mechanical Resistance to Impacts	IK10
Ambient temperature	35 (24 h)
Frame	Galvanized Steel
Doors and Covers	Steel, Electrostatic Powder Paint
Installation Plates	Galvanized Steel
Color	RAL 7035



Product and Solutions

OPTIMUM-X

- * Modular structure
- * Protection class up to IP 54 according to IEC 60529
- * Installation kits suitable to 5 different switchgear brands
- * Floor standing type up to 1600 A applications



Product and Solutions

OPTIMUM-X

Has a modular structure and mounting types are available for ABB, Legrand, Eaton, Schneider and Siemens switchgears. The system enables panel assembly by the vertical and horizontal mounting types of these 5 different switchgear brands. Optimum-X cabinets are one of our free standing type system solutions.

Structure consist of 300 and 500 mm depth system solutions with single module. Modules have alternatives such as 465, 665, 865, 1065 mm width; 2000 mm height.

Provides different solutions from IP31, IP43, up to IP54 protection degree.



Product and Solutions

OPTIMUM-X

TECHNICAL SPECIFICATION

Standards	IEC 61439-2
Area of Usage	Indoor
Grid Type	TN-C, TN-S, TN C-S, TT, IT
Voltage, Un	AC 400V
Rated Service Voltage, Ue	Up to 690V
Rated Insulation Voltage, Ui	Up to 1000V
Rated Impulse Withstand Voltage	8 kV
Overvoltage Category	III / IV
Pollution Degree	3
Rated Current, In	Up to 800A
Rated Short-time Short-circuit withstand current, Icw	Up to 50kA
Rated Peak Short-circuit Current, Ipk	110 kA
Rated Frequency, f	50-60 Hz
Segregation	Up to Form 2 B
Degree of Protection	Up to IP54
Mechanical Resistance to Impacts	IK10
Ambient temperature	35 (24 h)
Frame	Steel, Electrostatic Powder Paint
Doors and Covers	Steel, Electrostatic Powder Paint
Installation Plates	Galvanized Steel
Color	RAL 7035



Product and Solutions

PRESECON

* Free standing type panels including protection and control relays, maneuver and monitoring equipment for use in high-voltage and medium-voltage power transfer lines and transformer hubs.

* Measurement panels, marshalling panels and control tables are other versions of H MVCC systems. For these systems GVD has included the PRESECON product type into its production range and EN 60439-1 certification has been obtained from TSE (Turkish Standards Institute).



Product and Solutions

PRESECON

These floor standing type panels are generally used at high voltage and medium voltage energy transmission lines and energy substations. These panels includes; protection and control relays and observing equipments. Metering panels, marshalling panels and control desks are the other versions of these HMV systems.

PRESECON Relay Control Panels, used in energy transmission and substations, are standing type panels that perform security, protection, control, maneuvering and monitoring functions in high voltage and medium voltage systems. These panels are designed to ensure safe and effective management of energy transmission infrastructure.

PRESECON panels are designed for a wide range of applications in high voltage and medium voltage power transmission systems. It has a flexible structure to meet the requirements of HMVCC (High Voltage Motor and Generator Control Center) systems with its different versions such as measurement panels, marshalling panels and control desks.



Product and Solutions

PRELINE

* These are the distribution boards with vertical busbar system. A product type which is convenient to English standards, Preferable especially in Middle East Countries.

* Areas of usage: Luxury Houses, Hotels, Residences etc.



GVD

Product and Solutions

PRELINE

- Easy and fast installation
- Integral copper busbar
- Standard colour coding at all terminals
- Plastic protection cover for spare terminals
- Fully isolated Form 2B protection
- Option for selection of MCCB, MCB or RCCB as main incomer
- Wide alternative solutions
- Direct connection possibility without using main breaker
- Top and bottom entry option
- Protection class up to IP 65
- Different alternatives from 4 Ways to 36 Ways



Product and Solutions

G-RACK

- * Modular structure
- * 19" inch swing frame
- * Double opening and flexible positioning
- * Front and rear doors
- * Protection class up to IP 65



Systems and Solutions

WMCC

“WITHDRAWABLE MOTOR CONTROL CENTERS”

* Fully withdrawable technology in Motor Control Centers (MCC) offers many advantages, especially where malfunctions must be rectified without interrupting operation.(for etc: chemical industry, water treatment plants)

* In standard configurations; it has withdrawable modules with 3 or 4 poles, 125A, 315A, 630A options.



Systems and Solutions

WMCC

“WITHDRAWABLE MOTOR CONTROL CENTERS”

- * Easy insertion and retraction of the fully withdrawable units. Unlike conventional plug-in technology, there is no need to overcome the mechanical resistance of plug contacts.
- * In case of any failure, the drawer can be disconnected by the contacting module and can be replaced without the need of any tool.
- * Power transmission with wear - free contacts in the contact module.
- * Individual withdrawable modules can be quickly exchanged or added during operation without needing to switch off the system.
- * Inserted withdrawable modules can be locked in the positions "operation", "test" and "disconnected".
- * Protection against incorrect operations by safe locking mechanisms.
- * Fully withdrawable modules available in standard configurations are, 3-pole or 4-pole; with 125A, 315A, 630A rated currents.
- * Offers more cost-effective solutions due to compact contact modules.

GVD



Systems and Solutions

MPCC

“MAIN POWER CONTROL CENTERS”

* These are used in shopping centers, industrial facilities, intelligent buildings, treatment plants and all the areas where low voltage power control is required to manage and control the system in the most appropriate manner.

* These systems are designed up to 6300 A as per IEC- 61439 standards.



Systems and Solutions

MPCC

"MAIN POWER CONTROL CENTERS"

MPCC panels are designed by taking the dynamic forces formed by the on-off operations of circuit breakers with high breaking capacity, up to 6300A applications.

In electro-montage, electrolyte copper bus bars suitable for total power and short circuit currents are selected, and supported in appropriate intervals in compliance with IEC 60439-1 and TSE 3367 standards.

They may be formed with the aid of auxiliary separator and switch accessories from Form 2a to Form 4b in compliance with IEC 60439-1 and TS 3367 standards for operational safety.



Systems and Solutions

PCC

"POWER CONTROL CENTER"

* These are secondary distribution and control panels used where low voltage power control is necessary. These systems are designed up to 2500 A as per IEC -61439' standards.



Systems and Solutions

PCC

"POWER CONTROL CENTER"

These are the secondary distribution and lighting panels used after the MPCC panels in shopping centres, industrial facilities, intelligent buildings, treatment plants, and are used to manage and control the system in the most appropriate manner in all the areas, where power control is necessary.

GVD



Systems and Solutions

RPCC

"REACTIVE POWER CONTROL CENTERS"

* These systems are designed to correct the power factor and increase the energy efficiency at the facilities.



GVD

Systems and Solutions

RPCC

"REACTIVE POWER CONTROL CENTERS"

These are used in shopping centres, industrial facilities, intelligent buildings, treatment plants and all the areas, where low voltage power control is required, to compensate the systems in most appropriate manner.

RPCC panels are designed up to 4000KVA applications by taking the harmonics and the most appropriate stepping options into consideration.

In these panels, where heating is extremely important, the necessary heating calculations are made to ensure appropriate panel volume, the required ventilation and the environmental temperature for the inner-panel devices to work efficiently.

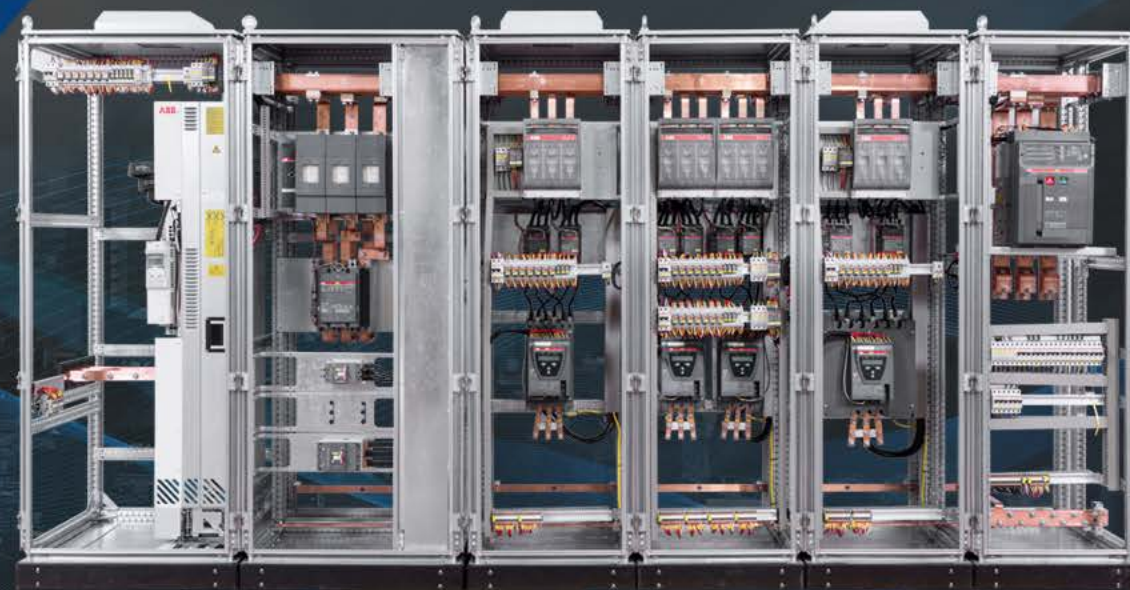


Systems and Solutions

MCC

"MOTOR CONTROL CENTERS"

* These systems have wide usage area in places where motor usage is intensive. Our effective and optimum solutions with right equipments and systems provide our customers operational safety as well as investment efficiency.



Systems and Solutions

MCC

"MOTOR CONTROL CENTERS"

These are designed to control the system in the most appropriate manner in all the areas, where motor usage is intensive, such as factories, intelligent buildings, production lines, treatment plants and pump stations.

These are the panels, where constant type switch equipment, soft starters, speed control devices are controlled and managed.

Appropriate solutions for process control are designed, and the ease of operation and maintenance is taken into consideration.



Systems and Solutions

ACS

"AUTOMATION CONTROL SYSTEMS"

These are designed to manage all kinds of technological application in industrial facilities in the most appropriate manner.

These are the panels where PLC, control cards, converters and command relays are located. These are the control centres of MCC panels and the field equipment.

GVD



Systems and Solutions

BMS

"BUILDING MANAGEMENT SYSTEMS"

* These are designed to manage all kinds of automation and safety applications in intelligent buildings and shopping centers in the most appropriate manner.



GVD

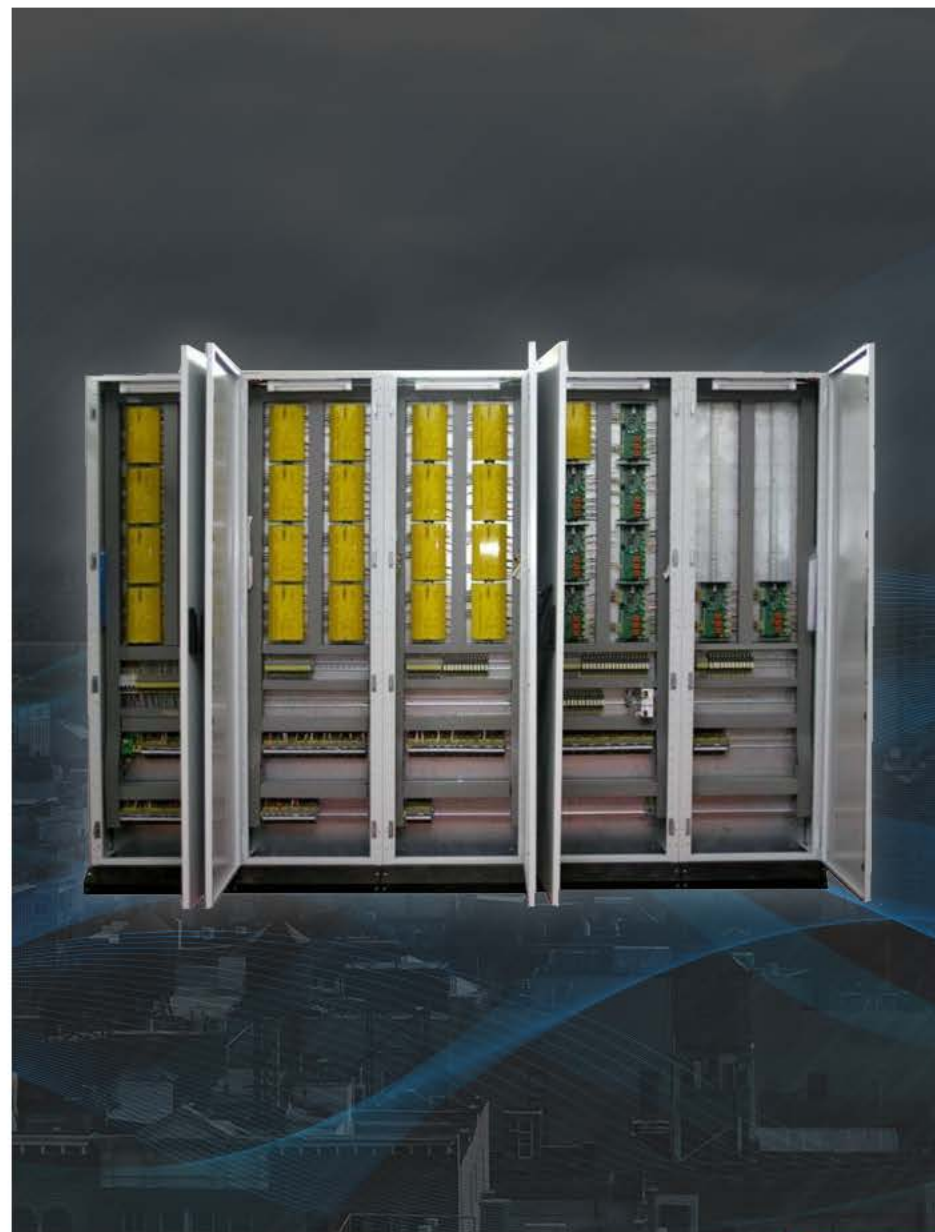
Systems and Solutions

BMS

"BUILDING MANAGEMENT SYSTEMS"

These are designed to manage all kinds of automation and safety applications in intelligent buildings and shopping centres in the most appropriate manner.

These are the panels, where automation cards are placed in a terminal box, and mechanical equipment and lighting groups in the buildings are controlled and monitored.



Systems and Solutions

MC

"METERING CENTERS"

* These systems are designed to manage and control the energy measurement and safety in housing estates, business centers and shopping centers.

GVD



Systems and Solutions

MC

"METERING CENTERS"

These are designed to manage and control the energy measurement and safety in the most appropriate manner in housing estates, business centres and shopping centres.

MC panels meet the acceptance criteria of electrical utility for sealing the meters.

GVD



Systems and Solutions

VLBCC

"VERTICAL LOAD BREAK CONTROL CENTERS"

* These are designed to manage and control the energy measurement and safety in low voltage transformer substations of electrical utilities.



GVD

Systems and Solutions

VLBCC

"VERTICAL LOAD BREAK CONTROL CENTERS"

These are the panels used to manage and control the system in the most appropriate manner in the Low voltage substations used in the operation field of the electricity utility.

VLBCC panels are designed with sliding bus-bars and fixed bus-bars up to 1600 KVA applications in compliance with TEDAS MYD 006 technical specifications. In electro-montage, electrolyte copper bus bars suitable for total power and short circuit currents are selected, and supported in appropriate intervals in compliance with IEC 60439-1 and TSE 3367 standards.



REFERENCES

ABB
ASEA BROWN BOVERI

ALARKO

ASSAN
ALÜMİNYUM

BOTAŞ

CEVAHİR HOLDİNG

CALIK HOLDİNG

Limak

TURKISH
AIRLINES

ENKA
İNŞAAT VE SANAYİ A.Ş.

ERDEMİR

GÜBRETAS
GÜBRE VE SANAYİ A.Ş.

Hilton

KARDEMİR

KORAY

OYAK ÇİMENTO

tracim
ÇİMENTO

M

nuh
çimento sanayi a.ş.

PETRONAS
reimagining
energy

RÖNESANS HOLDİNG

askale
çimento

GÜLERMAK

Petkim

GVD

THANK YOU

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