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ostim yatırım

Ostim Endüstriyel Yatırımlar ve İşletme A.Ş.
100. Yıl Bulvarı No:101-A
Ostim Ankara TURKEY
0090 312 385 34 09 - 0090312 38[illegible]
www.ostimyatiri[illegible]

Setmaş
ELECTRIC INDUSTRIAL PLANTS
CONTRACTING AND TRADE CO. INC

Gersan Sanayi Sitesi 2307 Sokak No: 62
06370 Ergazi-ANKARA / TURKEY
Tel: +90 312 255 87 17 **Fax:** +90 312 256 31 85
web: **www.setmas.com.tr**
mail: **setmas@setmas.com.tr**

Orkestra | 0312 445 02 15 | ajansorkestra.com

www.setmas.com.tr

Setmaş
ELECTRIC INDUSTRIAL PLANTS
CONTRACTING AND TRADE CO. INC

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ELECTRIC INDUSTRIAL PLANTS CONTRACTING

ELECTROMECHANICAL PRODUCTION

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Setmaş
ELECTRIC INDUSTRIAL PLANTS
CONTRACTING AND TRADE CO. INC

MESSAGE FROM THE CHAIRMAN

During the 80's, during which the Turkish Industry developed rapidly, unfortunately the Turkish firms generally had to only do the electrical installations, while in the works requiring automation or use of software, foreign supervisors were needed to come and start the establishments. And the service they were giving was just the application of their knowledge to the establishment as software.

Setmaş serves the Turkish Industry in the areas of design, projecting, software and activation, by educating its related engineers in these areas, with the supports of our industrialists. It continues its studies, by continuously renewing itself, and never giving up Research and Development.

We are thankful to our industrialists who have given support for the advancement of the firm and the employees to today's level, who live the excitement and the honor of contributing to the growth of the industry of our country.

We thank you from now for the support you will give us, and the trust you will put in our projects,products and in us.

Finally we want to express our sincere appreciation for our project manager Eng Mahmut Abdulhadi For his effort in preparing this calalogue.

Ostim yatırım

Setmaş
ELECTRIC INDUSTRIAL PLANTS
CONTRACTING AND TRADE CO. INC

OSTİM YATIRIM A.S. & SETMAS

Our Cooperation has been established in 2002 and completed with succes many projects. Transformer Substations, Switchyards, Cement Factories, Energy Productions and transmission plants underground HV cable system, pump stations, petrochemical plants. are our scope of work.

Our firm has the same staff since established until today and for this reason, every passing day give the service to Turkish Industry with increase experience.

Our firm offer the service in five main activities such as engineering design and consultancy works, software engineering, production, contracting and trade According to the Turkish Standard institution TSE ISO 9001 Quality system, German standard institution VDE, international standards IEC.

Our continued goal has been to set the standards in products, systems and services in our sector with continous improvement in technology, high quality.

ostim yatırım

Ostim yatırım

Setmaş
ELECTRIC INDUSTRIAL PLANTS
CONTRACTING AND TRADE CO. INC

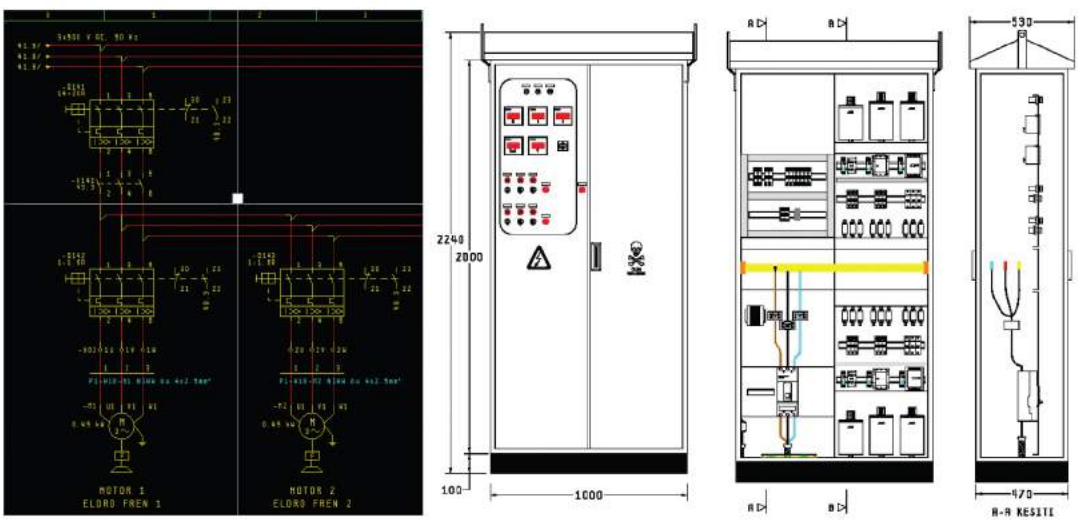
AREAS OF ACTIVITY

- Engineering and consultancy works
- Software engineering
- Production
- Trade service
- Contracting activities

ENGINEERING AND CONSULTANCY WORKS

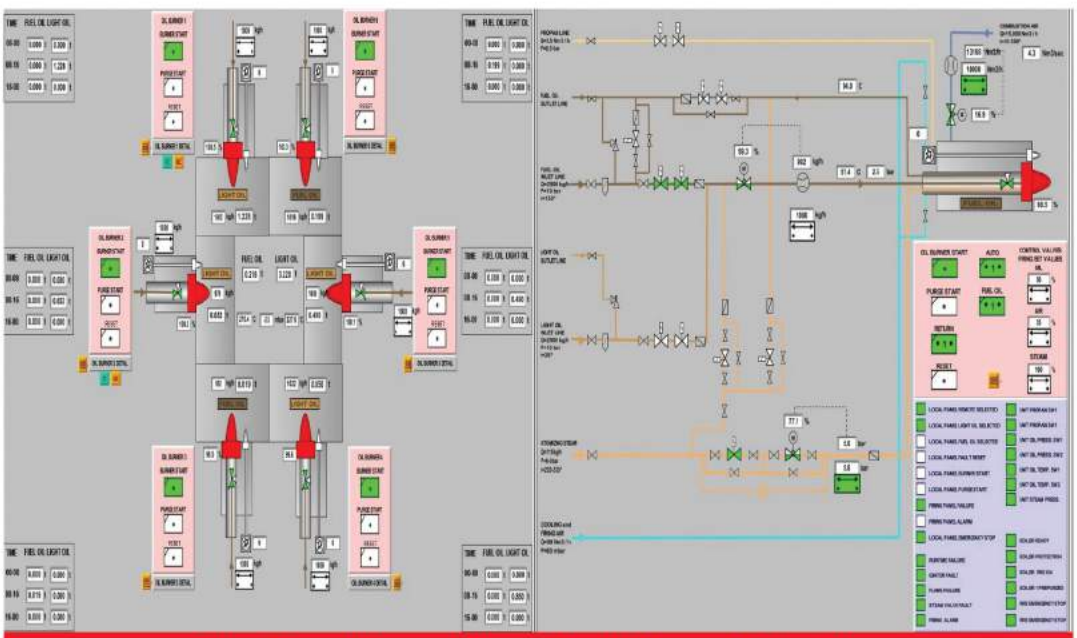
Our project service carry on all contracting projects of SETMAŞ together with electrical projects of other firms. Our projects drawn with the international professional project drawing programme EPLAN. Beside that Panel's frontview plan, layout plan and P&I diagrams drawn with AUTOCAD program. Our firm guarantee to provide a project without any mistake and to give you AS-BUILD project as PDF files.

Adana 154/34,5 KV Transformer Centre

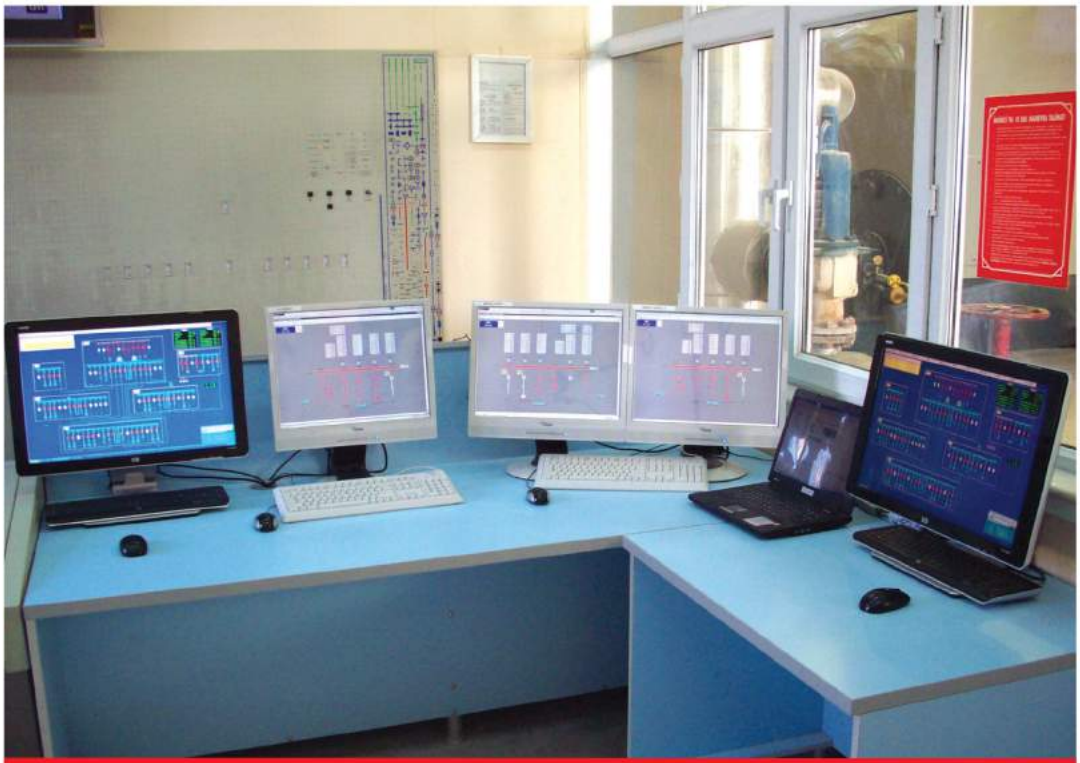


SOFTWARE ENGINEERING

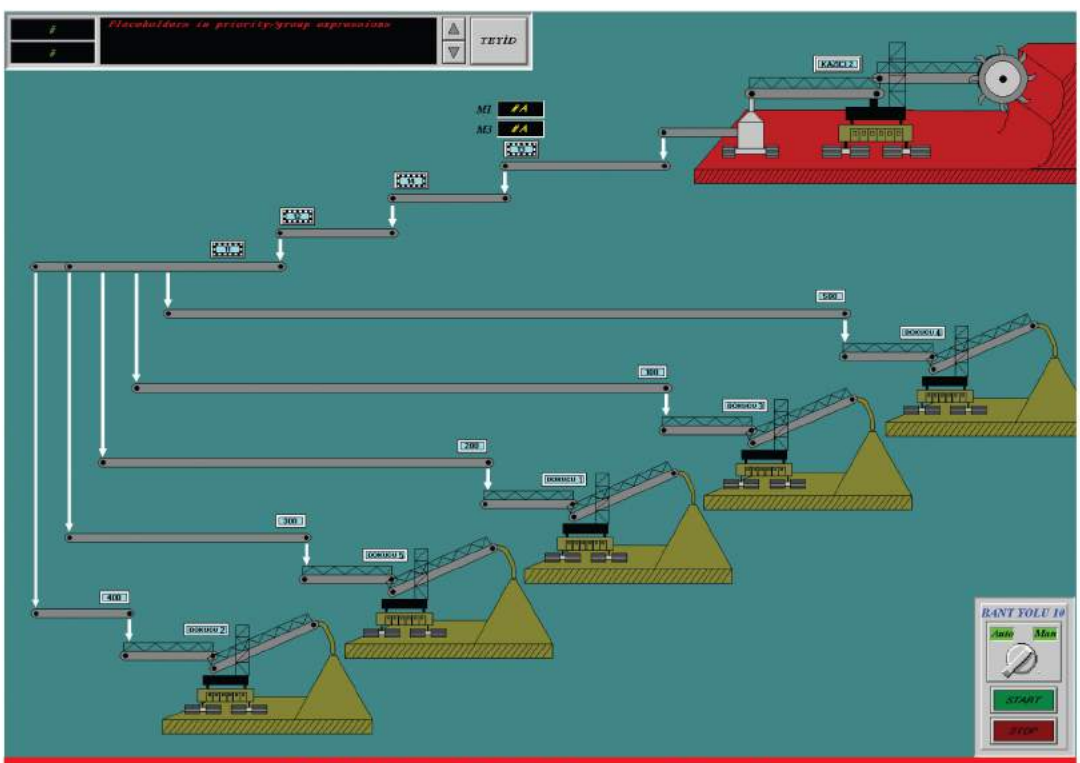
Our firm offer software engineering service such as PLC automation and the SCADA systems. Our Firm is system integrator of SIEMENS, ALLEN-BRADLEY and WONDERWARE. We completed several works successfully with SIMATIC S5/S7, ALLEN-BRADLE, GE-FANUC, TELEMECANIQUE, HITACH and ABB. Professional software's are used which have percent of marketing through the world such as INTOUCH, PCS7 ,WINCC, T3000 COROS and SIEMENS AS215 TELEPERM DCS SYSTEM.



Sivas Kangal Thermal Power Plant Oil burner Automation



Eti Maden Kırka Boron Plant Monitoring And SCADA System



Afşin-Elbistan Lignite Conveyor Automation

Eti Chrome Raw Material Dosage and Weighing Automation






In EÜAŞ Afşin Elbistan Lignite Company, the establish of controlling centre and the SCADA System works has been completed, totally 48 driving system station is enabled to remote control by installing SIEMENS S7-300 and S7-400 series PLC systems.

The control of the machines has been done by wireless system.

PRODUCTION

OUR FIRM SETMAŞ CO. INC. offers Technical service in Transmission, Distrubition, Automation, Control and the Protection of the Electrical Energy by its experienced staff. SETMAŞ factory under the name of SETMAŞ Electromechanical Industrial and Trade CO. INC. Was established in the beginnng of 2007 to present quality , fast and economic solutions to the strong electromechanics demand that was witnessed in Turkey. As can also be seen in our catalogue, manufacturing installation and commissioning Works of product with TYPE TEST according to IEC standard and with ISO 9001:2008 quality certificates constitute the main field of activity of our firm.

SETMAŞ factory produces low voltage distrubition panels, low voltage compensation panels, lighting panels, motor control panels, withdrawable motor control panels, PLC automation panels, SCADA system, alarm and warning systems, camera and security systems, automatic transfer systems, signalization systems, transformer and distrubition substations, Master control and metering panels, Metal-enclosed switchgear, Metal-clad switchgear, outdoor type transformer substations, Medium voltage compensation systems, while the other activities like turn-key delivery LV, MV Electrical network susbstation, Industrial and individual systems, Electrification production and contract project management. In all stages of the projecting erection and operation technical services are rendered by our experienced technical teams.

We will include our products in this catalogue to show our quality in design and manufacturing processes. At the same time our production department has the capacity of doing all the productions of SETMAS contracting projects beside the projects from other firms according to the Turkish Standard institution TSE ISO 9001 Quality system certificate, German standard institution VDE, international standards IEC.

Piano type control panel

MCC panel board

Control Panel

LV panel board

LV switchgear panels

LV panel board

Piano type control panel

MV/LV Panel Board Housing

Control Panel

Junction Box

Compansation Panel

PLC Panel

Turbine Control Panel

MV/LV Prefabricated Concrete Housing Transformer Substations

Medium Voltage Metal Enclosed Modular Switchgear

ADO-CIM Artova Cement

6.3 KV Medium Voltage Metal Encloused Modular Switchgear

36 KV Medium Voltage Metal Encloused Modular Switchgear

Our Metal Clad Switchgear are produced with switching capability with SF6 and Vacuum circuit breakers, air insulated, withdrawble, providing full staff and system security with its metal division structure, with voltage levels from 6.3 kV up to 36 kV, and as 630 A – 1250 A – 2500 A. It provides service continuity compliant with LSC 2B-PM class specified in IEC 62271-200 standard. All type tests have been certified at laboratories with international accreditation.

APPLICATION AREAS

Power Transmission & Distribution

Step-down transformer Station
Substations

Power Plants

Thermal Power Plant
Hydroelectric Power Plants

Transportation

Airports & Ports
Highway Facilities
Train / Subway Stations

Industrial Facilities

Iron & Steel Plants
Cement Factories
Automotive Factories
Mining
Petrochemical Facilities
Pumping Stations
Pipelines
Flour Mills
Glass Industry
Textile Factories

Other Facilities

Organized Industrial Zones
Treatment Facilities
Hospitals
Shopping Malls
Other facil. with critical power req.

T.P.A.O. Batman Regional Directorate
36 kV Metal Clad Cell Switchgear System

36 kV Metal Clad Switchgear STM-MC 36

GENERAL SPECIFICATIONS

Our Metal Clad Switchgears consist of 4 Main sections as Busbar Section, Current Transformer and Cable Connection Section, Circuit Breaker Section and L.V. Section. The Switchgears are separated from each other with grounded metal plates, and switching element has been designed as drawer type. Extension of any fault, which may occur in any separated section and its effects on other sections, is at a minimal level.

The main carrier sections of our Switchgears are manufacture from pre-galvanized 3-mm metal sheets, whereas 2-mm metal sheets are used for other sections. Our Switchgears are coated with phosphate after the required chemical cleaning processes and painted with electrostatic powder paint. Sections manufactured from pre-galvanized metal sheets do not require painting.

12 kV Metal Clad Cell STM-MC 12

Circuit breaker box is designed in compliance with entire 630 A – 1250 A – 2500 A vacuum or SF6 type circuit breakers. Beyond, other applications such as Lache, Voltage Transformer, Fuse Group may be performed on the same box.

All checks and interventions to our Metal Clad cells are made from the front. The Switchgears have been designed in compliance with remote access in SCADA applications.

Probability of transmission to points with energy due to wrong maneuvering in Switchgears has been eliminated thanks to the mechanical locks.

The effects of dynamic and thermal forces, which may form during internal failures, on staff have been eliminated. All discharge trap doors have been directed in a manner that avoids any effect to the staff and proper functioning of trap doors has been observed during type tests.

Our cells have IP 4X and/or IP 3X protection classification suitable for internal use.

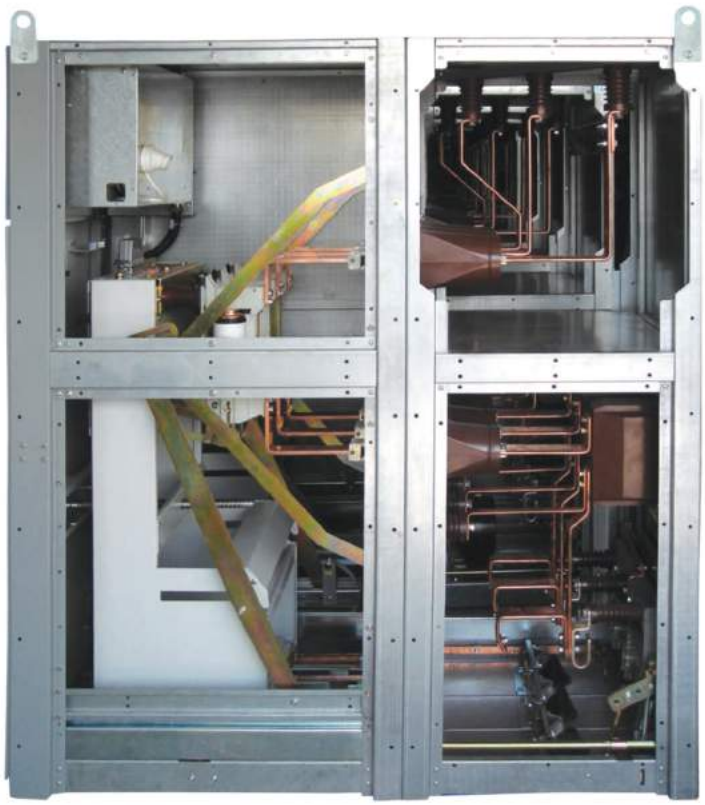
ADVANTAGES OF METAL CLAD SWITCHGEARS

- Quick intervention to faults, easy solution and maximum service time continuity is achieved thanks to the drawer type switching element.
- It is of a mechanical structure with high resistance to electrical internal faults that is resistant to high voltage and short circuit.
- Use of standard switching equipment provides easy spare part stocking.
- Maintenance requirements are at a minimum level for ease of use and easy operating.
- Its system structure makes its design suitable for cell addition.
- Under operating conditions, the cell is completely closed and provides security against contact with energy.
- Maximum level of staff and operating security is provided for entire maneuvering thanks to mechanical locking.
- Easy replacement of measurement transformers and convenience in the connection of power cables has been established.
- It is a completely insulated system with internal sections of the cells separated from each other with grounded metal sheets.

TECHNICAL SPECIFICATIONS OF METAL CLAD SWITCHGEARS		
Setmas Switchgear Type	**STM-MC36**	**STM-MC12**
Producer Firm	ELECTROMECHANICAL INDUSTRIAL AND TRADE CO.INC.	
Brand	SETMAS	
Relevant Production IEC standard	IEC 62271-200	
Middle Voltage Cell IEC class	LSC2B-PM	
Rated Voltage	36 kV	12 kV
Rated lightning strike endurance Voltage 1.2/50 us	170 kV	75 kV
Rated lightning frequency endurance Voltage – 50 Hz	170 kV – 1 min.	28 kV – 1 min.
Middle Voltage Switchgear protection class	3X	4X
Rated current	630 A – 1250 A – 2500 A	
Rated short term endurance current – for main circuit	25 kA – 3 sec.	
43.3 kA – 1 sec.	63 kA	
Rated peak endurance current	63 kA	
Grounding rod type	E2	
IEC internal arch classification for M.V. Switchgear	AFL	
Internal Arc endurance current – in 3 section	25 kA – 1 sec.	
Auxiliary Control Voltages	24/48-110-220 Vac/Vdc	
Access to Cable Connection	Front Access	
Busbar Insulation within the Switchgear	Air	
Ambient Temperature	- 5 C ° + 40 C °	
Average relative humidity	80%	
Elevation	1000 m.	
Colors (Electrostatic Powder Paint)	RAL 7035	1700 mm
Metal Clad Switchgear Depth	2700 mm	1700 mm
Metal Clad Switchgear Width	1600 mm	850 mm
Metal Clad Switchgear Height	2350 mm	2050 mm

SETMAS METAL CLAD MECHANICAL LOCKING

- Switch box cannot be taken in without the circuit breaker auxiliary socket is plugged.
- Switch box cannot be moved forward without the cell door being closed and secure locking is performed.
- The switchgear door may only be opened when the Switch box is pulled back.
- The circuit breaker may be pushed forward if the grounding separator is open.
- If the switch box is not pulled back, grounding may not be intervened with, and grounding may not be closed.
- The circuit breaker may only be closed if the switch box is in a completely forward (operating position) or else fully back (test position).
- While the circuit breaker is closed, it will open without any conditions if mechanical reset emergency stop is pressed.



Mechanical emergency stop and automatic shutter


2500 A. Contact Design


Observation Glass and Ø 10 mm Door Lock Detail


Grounding Maneuver Locking System

SETMAS METAL CLAD DESIGN CONCESSIONS

- Regardless of whether switch box is in a est position or operating position,continuity of grounding has been provided thanks to the grounding slide.
- If the switch box is moved from its place when closed in service position, the circuit breaker opens mechanically.
- A person can put the 36 kV switch box in its place, and after it is taken out of its place it can be easily manufactured as it is mounted on 4 movable-head wheels.
- Low voltage secondary protection cabinet can be easily accessed and work performed without an access platform or ladder.
- The same switch box may be used for multiple purposes without making any changes to its moving or locking systems. 630A – 1250A – 2500A vacuum circuit breaker or SF6 circuit breaker, voltage transformer group, Fuse group or jumper (Lache) group may be installed.


Continuity in grounding


Maneuver Security System to which multiple padlocks can be mounted


Hexagonal stop pin system

Local SCADA applications

- The Switchgears have been designed so as three separate teams may mount padlocks to the cells to avoid uncontrolled intervention.
- Metal cable channel has been used in the internal cabling laid between the cell sections, fire risk has been removed and cable connection points in the secondary protection cabinet have been designed in a manner allowing easy access of the operator and installation without the occurrence of any cable piling.
- Mechanical issues, which may arise during operation, have been minimized with the use of hexagonal stop pins during the assembly of detachable mechanical metal sheet parts.
- The cells have been designed in compliance with SCADA, and SCADA compliant touch screen may be installed at the secondary cell cover, and command and control can be established locally through LOCAL SCADA without any buttons.


Power Cable Inlet and Ease of Connection


Impeccable Busbar Workmanship


Permanent Labeling at International Project Norms


Metal Cable Channels and Adjustable Slide Position Sensor

STANDARDS AND TECHNICAL SPECIFICATIONS APPLIED TO METAL CLAD SWITCHGEARS

IEC 62271-1	High voltage switching and control devices and common rules for installations
IEC 62271-200	Metal Enlosed panels 1-52 kV
IEC 62271-100	High voltage alternate current circuit breakers
IEC 62271-102	Alternate current load separators and grounding interrupters
IEC 60439-1	Low voltage switching and control units
IEC 60255	Measurement – Protection Relay
IEC 60044-4	Current and Voltage transformers
IEC 60282-2	High voltage fuses

DEFINITION OF EQUIPMENT USED IN METAL CLAD SWITCHGEARS

SF6 / VACUUM CIRCUIT BREAKER AND SWITCHGEAR BOX

The circuit breakers used in our switchgear are either SF6 or VACUUM type depending on request, and compliant with TS EN 62271-100 standard. Front mechanism circuit breakers used, may be selected up to 3150 A at 36 kV or 12 kV voltage levels according to project values. All circuit breakers can be used at the same voltage level without the need to change the Switchgear box.

EARTHING SWITCH

Our earthing switchs are of E2 class separators with type tests performed at 36 kV or 12 kV 25 kA 1s electrical values. These switchs are of an instant shutoff type, and are produced according to TS EN 62271- 102 standard. E2 class separators have the property of making 5 shut-off upon short circuit.

CURRENT / VOLTAGE MEASUREMENT TRANSFORMERS

Current and voltage transformers, which have epoxy resin insulation, are used in our switchgear for protection purposes and type test products that comply with TS EN 60044-1 standard. Conversion ratio and measurement sensitivity may be selected according to project requirements.

PROTECTION RELAYS

In the switchgear produced by our firm, secondary protection relays are used with the purpose of determining faults, which may occur and protection of the system. The protection and control functions of these relays are determined according to the project and the selection is made as such. All the relays we use are at IEC 60255 standard.

BUSHING TRANSFER AND POST INSULATOR

Busbar post insulators are used in our switchgear with the power to compensate the dynamic forces, which may arise at instances when faults occur. Voltage dividing capacitive post insulators are used at power inlets or outlets with the purpose of concurrently using such as voltage indicator at the same time. These insulators provide staff security thanks to their ability to observe energy. All post insulators are compliant with IEC 61243-5 standard.

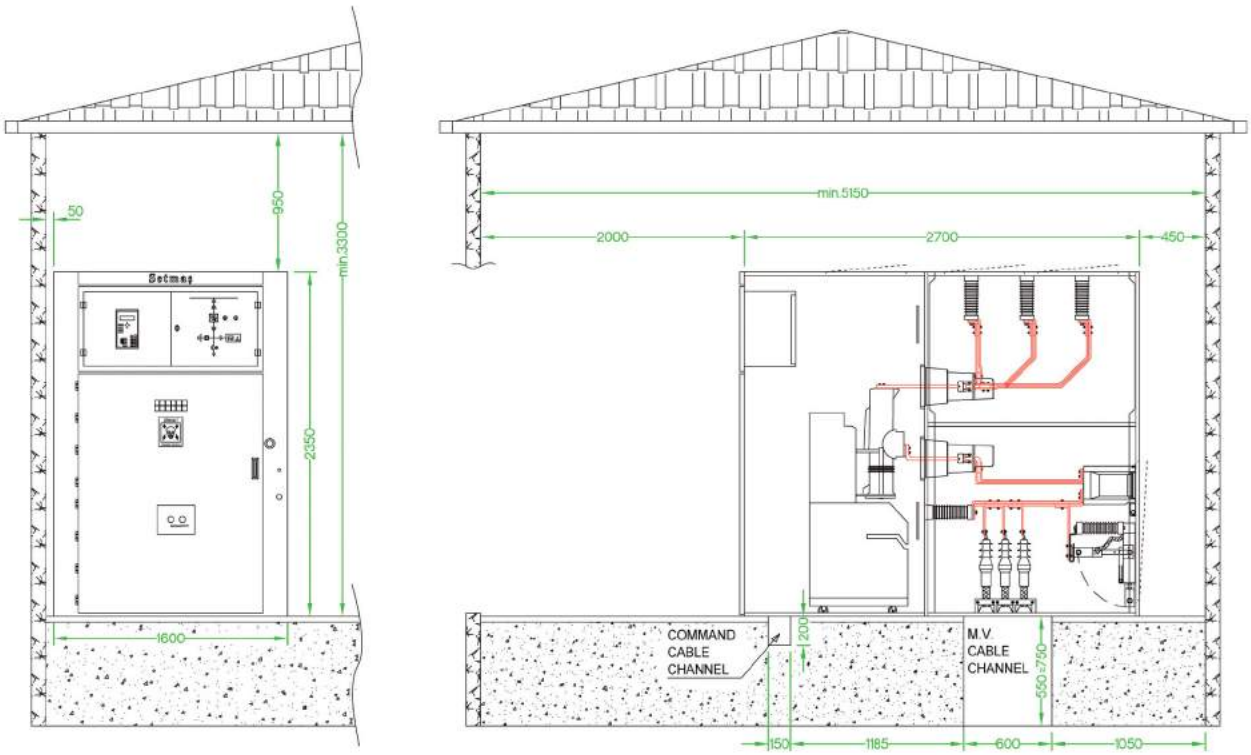
LV Section

Busbar Section

Circuit Breaker Section

Cable Connection and ATR Section

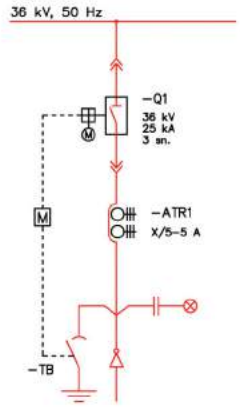
36 kV METAL CLAD SWITCHGEARS INSTALLATION AND GROUND PREPARATION INFORMATION



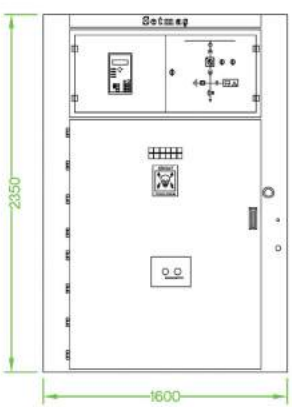
CABLE CHANNEL MEASUREMENT INFORMATION		
Cable cross section	**M.V. Power Cables**	**Command Cables Channel Depth**
Channel Depth	Command Cables Channel Depth	200 mm
1x35 mm²	550 mm	
	600 mm	
	600 mm	
	650 mm	
200 mm	650 mm	
1x50 mm²	550 mm	
1x70 mm²	600 mm	
1x95 mm²	600 mm	
1x120 mm²	650 mm	
1x150 mm²	650 mm	
1x170 mm²	700 mm	
1x240 mm²	750 mm	

Important Note: The ground on which installation of cells will be made should be level and adjusted.

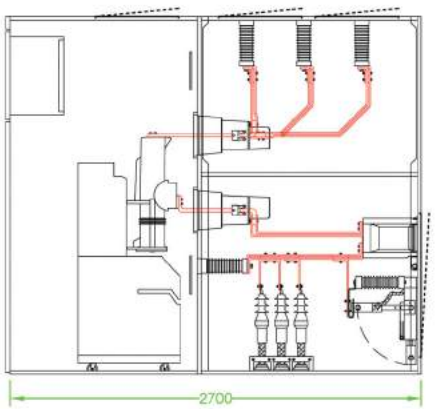
36 kV INLET – OUTLET SWITCHGEAR WITH CIRCUIT BREAKER TYPE: STM-MC36 IO



SINGLE LINE DIAGRAM

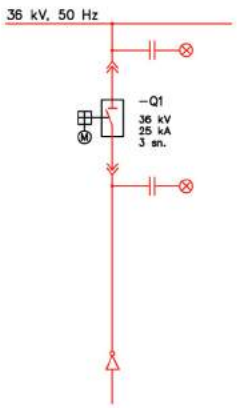


FRONT VIEW



SIDE VIEW

36 kV COUPLING SWITCHGEAR TYPE: STM-MC36 BC



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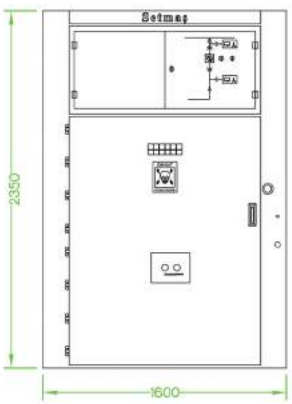
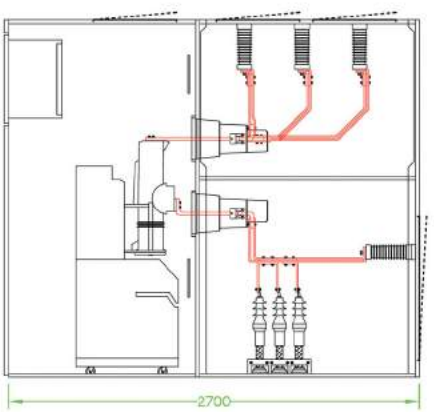
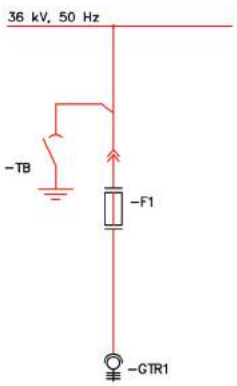


FRONT VIEW



SIDE VIEW

36 kV VOLTAGE MEASUREMENT SWITCHGEAR TYPE: STM-MC36 M



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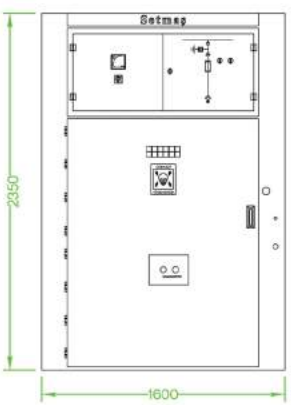
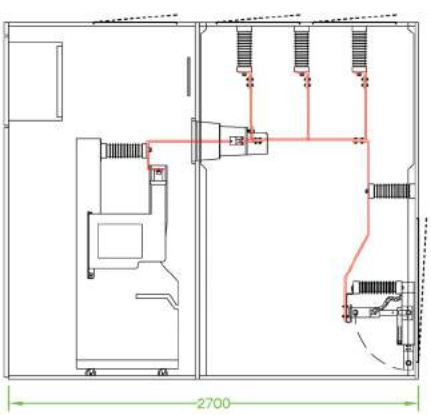


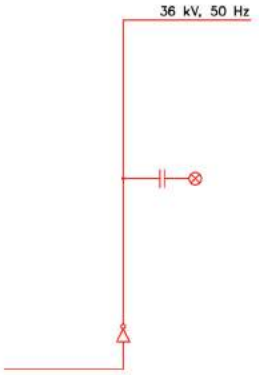
FRONT VIEW



SIDE VIEW

36 kV CABLE CONNECTION SWITCHGEAR

TYPE: STM-MC36 CC



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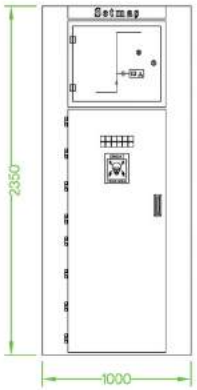
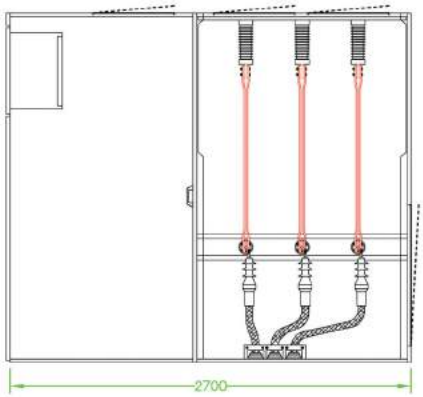


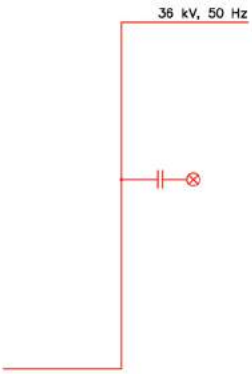
FRONT VIEW



SIDE VIEW

36 kV BUSBAR LIFTING SWITCHGEAR

TYPE: STM-MC36 BR



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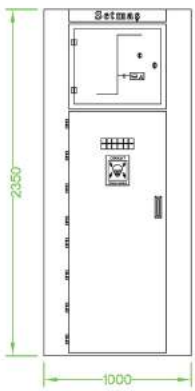
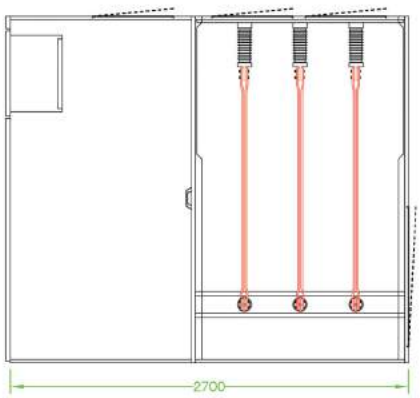


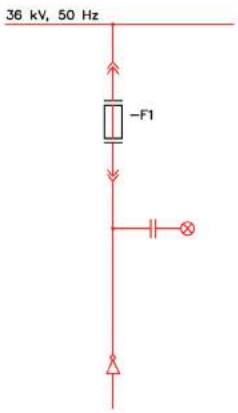
FRONT VIEW



SIDE VIEW

36 kV FUSE OUTLET SWITCHGEAR

TYPE: STM-MC36 F



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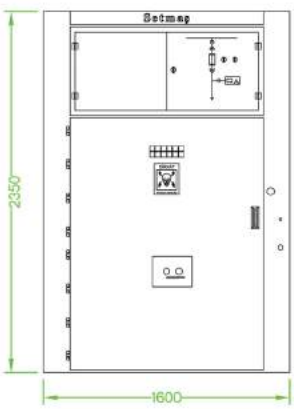
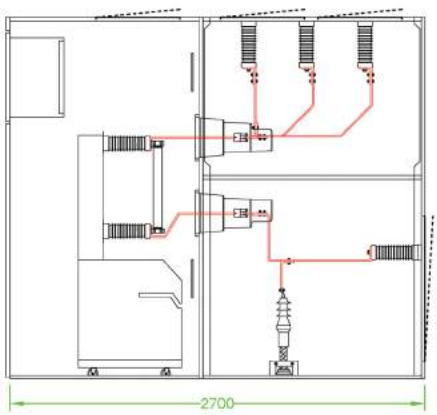


FRONT VIEW

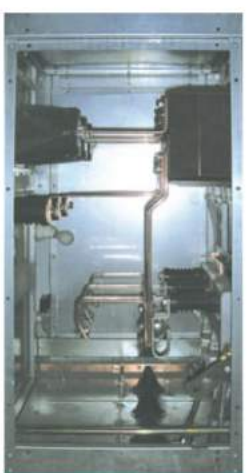


SIDE VIEW

LV Section

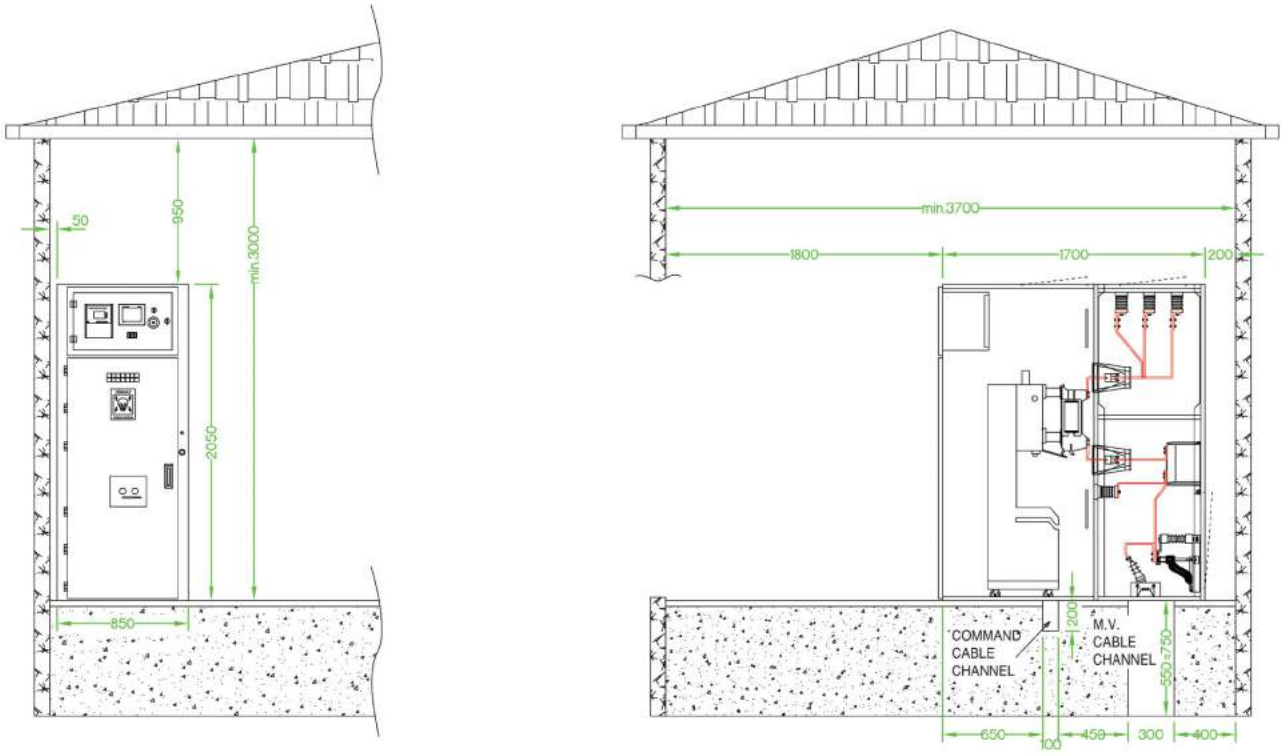
Circuit Breaker Section

Cable Connection and CT Section



Busbar Section

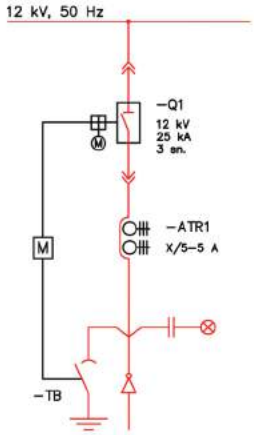
12 kV METAL CLAD SWITCHGEAR INSTALLATION AND GROUND PREPARATION INFORMATION



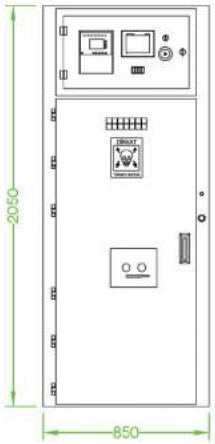
CABLE CHANNEL MEASUREMENT INFORMATION		
Cable cross section	**M.V. Power Cables**	**Command Cables Channel Depth**
Channel Depth	Command Cables Channel Depth	200 mm
1x35 mm²	550 mm	
	600 mm	
	600 mm	
	650 mm	
200 mm	650 mm	
1x50 mm²	550 mm	
1x70 mm²	600 mm	
1x95 mm²	600 mm	
1x120 mm²	650 mm	
1x150 mm²	650 mm	
1x170 mm²	700 mm	
1x240 mm²	750 mm	

Important Note: The ground on which installation of cells will be made should be level and adjusted.

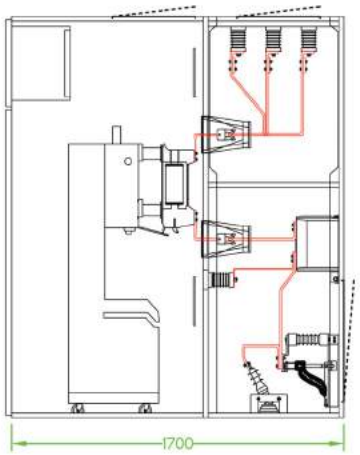
12 kV INLET – OUTLET SWITCHGEAR WITH CIRCUIT BREAKER TYPE: STM-MC12 IO



SINGLE LINE DIAGRAM

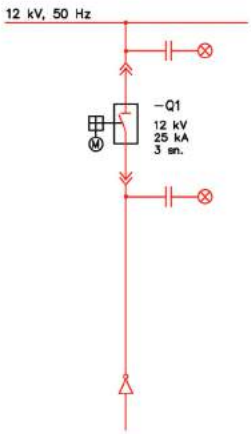


FRONT VIEW

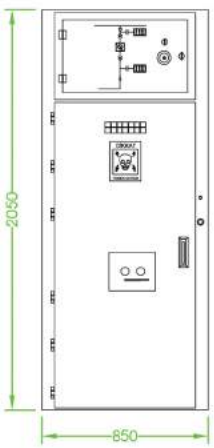


SIDE VIEW

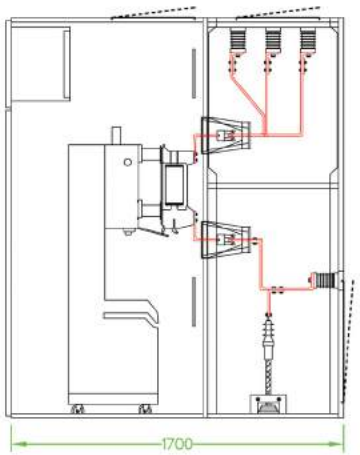
12 kV COUPLING SWITCHGEAR TYPE: STM-MC12 BC



SINGLE LINE DIAGRAM

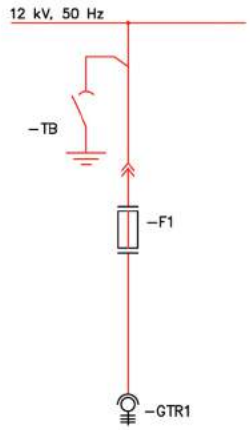


FRONT VIEW

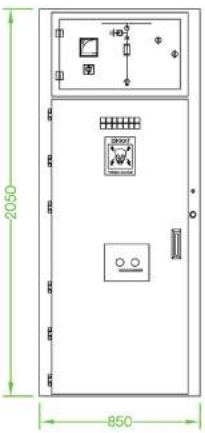


SIDE VIEW

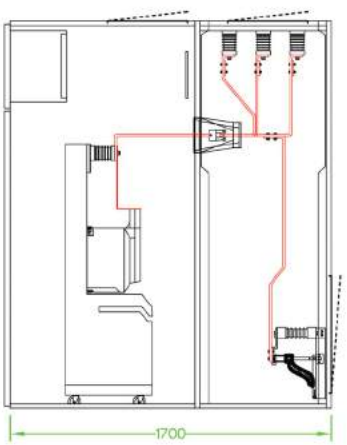
12 kV VOLTAGE MEASUREMENT SWITCHGEAR TYPE: STM-MC12 M



SINGLE LINE DIAGRAM



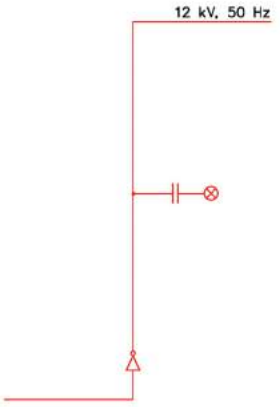
FRONT VIEW



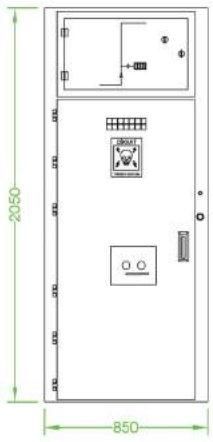
SIDE VIEW

12 kV CABLE CONNECTION SWITCHGEAR

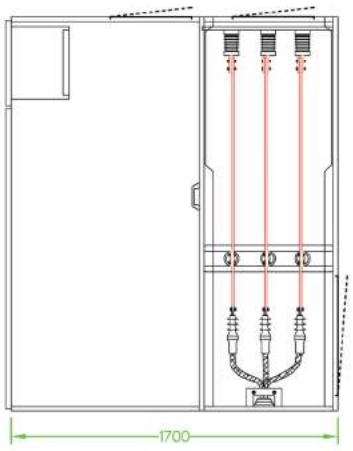
TYPE: STM-MC12 CC



SINGLE LINE DIAGRAM



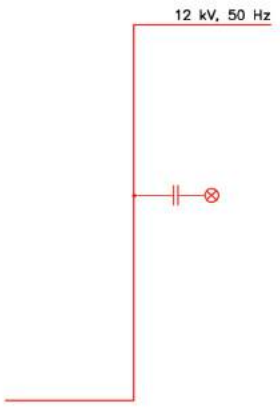
FRONT VIEW



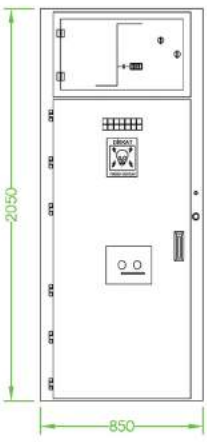
SIDE VIEW

12 kV BUSBAR LIFTING SWITCHGEAR

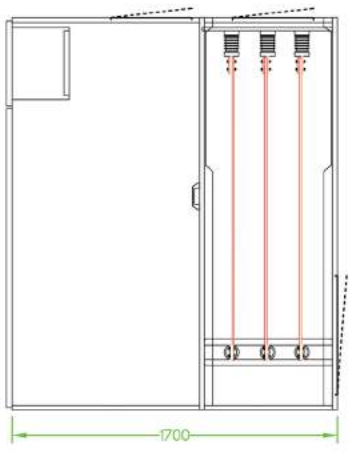
TYPE: STM-MC12 BR



SINGLE LINE DIAGRAM



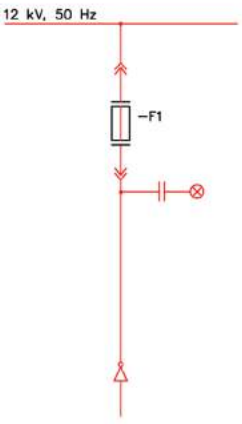
FRONT VIEW



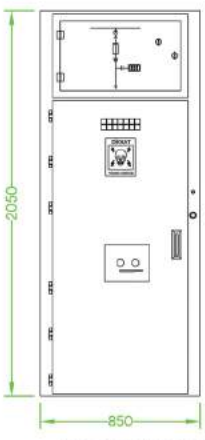
SIDE VIEW

12 kV FUSE OUTLET SWITCHGEAR

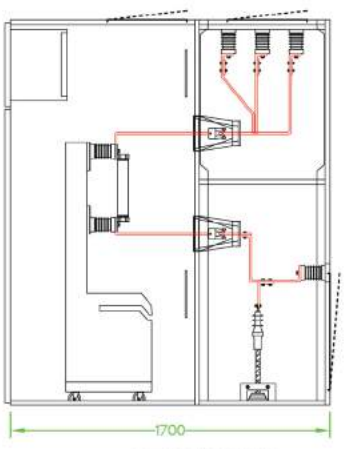
TYPE: STM-MC12 F



SINGLE LINE DIAGRAM



FRONT VIEW



SIDE VIEW

We can define low voltage panels as LV Distribution Panels, Capacitor Panels, MCC (Motor Control Center) Panels, Protection Panels, Control Panels, External Distribution Boxes, PLC Panels and some special manufactured panels according to customer requirement designs. Our all panels are produced as Type Tested (TTA) and/or Partially Type Tested (PTTA) defined in IEC 60439-1. LV Panel productions of our firm all type tests defined in TS 3367 EN 60439-1 certificate, and also have ISO 9001: 2000 quality certifications.

GENERAL SPECIFICATIONS

The main framework of our Low Voltage Panels are manufactured from 2 mm Galvanized metal sheet profiles, and are completely modular in structure. This modular structure forms a flexible system, which allows addition of panels in both directions.

Our panels are coated with phosphate after the required chemical cleaning processes and painted with electrostatic powder paint. Sections manufactured from pre-galvanized metal sheet do not require painting. Continuity of grounding is ensured thanks to the grounding of doors and moving parts.

The main busbar has the ability to carry currents of up to 4000 Amper and endure short circuits of up to 100 kA.

Auxiliary busbars have been certified as a result of type tests with the capacity to carry 630 A, 1600 A, and 2500 A current and 16 kA, 25 kA, 40 kA, 50 kA short circuit endurance capacity.

We also have drawer type compensation and MCC designs available to be used inline with project requests.

Although our panels are manufactured with 800*600*2050 mm standard external dimensions, project preparation and manufacture of special panels are also undertaken by our firm.

APPLICATION AREAS

Power Transmission & Distribution

Step-down transformer Station
Substations

Power Plants

Thermal Power Plant
Hydroelectric Power Plants

Transportation

Airports & Ports
Highway Facilities
Train / Subway Stations

Industrial Facilities

Iron & Steel Plants
Cement Factories
Automotive Factories
Mining
Petrochemical Facilities
Pumping Stations
Pipelines
Flour Mills
Glass Industry
Textile Factories

Other Facilities

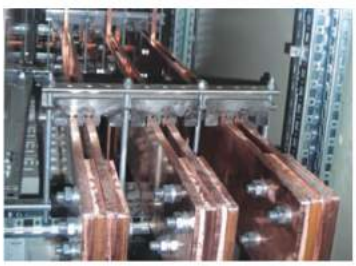
Organized Industrial Zones
Treatment Facilities
Hospitals
Shopping Malls
Other facil. with critical power req.

LV PANELS TECHNICAL SPECIFICATIONS

Standard		**IEC 60439-1**	
Operating Voltage	690 V	Nominal Current	Up to 4000 A
Insulation Voltage	1000 V	Nominal Short Circuit Endurance Current	Up to 100 kA
Impact Endurance Voltage	8 kV	Nominal Short Circuit Peak Current	Up to 205 kA
Frequency	50 – 60 Hz.	Protection Class	Up to 54 IP

CIMSA – Eskisehir Cement Factory
LV Distribution Panels and Busbar System

CIMSA – Eskisehir Cement Factory
LV Distribution Panels (Farin MDB)



Mardin Cement Factory
1475 kVAR Compensation with Drawer

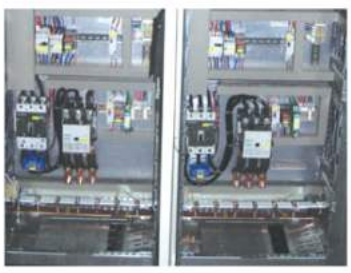
CIMSA – Eskisehir Cement Factory
1200 kVAR LV Capacitor System with Harmonic Filter

The power and control circuits of motors are found within our MCC panels. Control voltage has been established with an insulation transformer. The power circuits are designed according to the power and starting manners of the motors. Starter systems can be installed via direct, star – triangle, soft starter or frequency converter.

OYAK – Bolu Cement Factory
De-dusting MCC Group

EUAS – Kangal Thermal Power Plant
Oil Burners – MCC Pump with FC

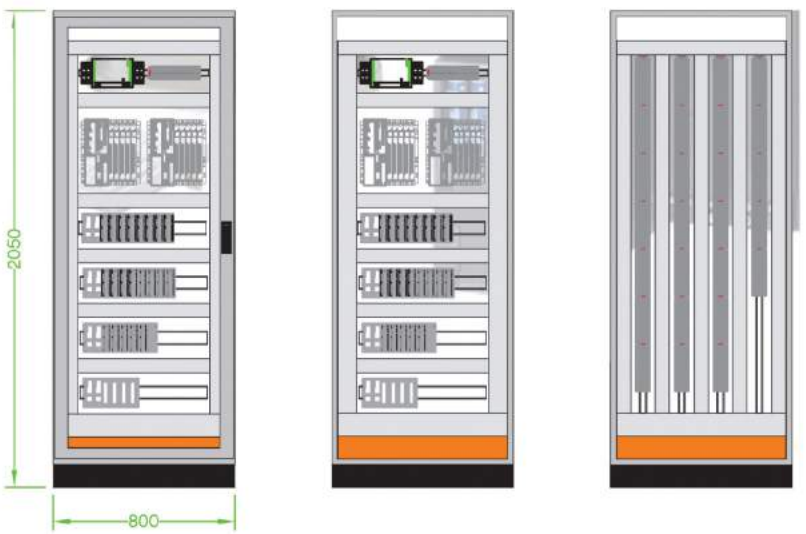
EUAS – Kangal Thermal Power Plant
Coal Intake System MCC



We are producing both PLC panels and RTU panels within the scope of this manufacturing. Project preparation and manufacture of all panels are undertaken according to requirements with a modular structure. PHOENIX brand Interface modules are used in our panels for signals, which come from and go to the site. Error-free connections are also ensured while cabling labor is performed in a very short time thanks to the connections made with connectors.

EUAS – AEL Thermal Power Plant
Band Propelling Stations PLC Systems

ASKI – Ivedik Water Treatment Facility
PLC Systems



FRONT VIEW
WITH COVER

FRONT VIEW
WITHOUT COVER

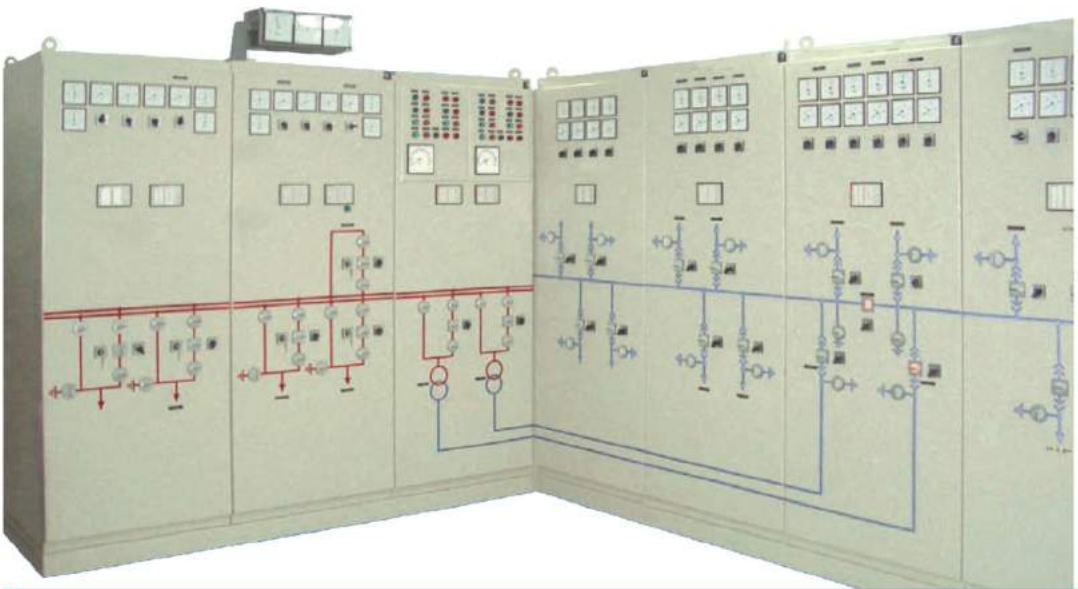
REAR VIEW
WITHOUT COVER

ETI MADEN – Kirka Boron Mining Substation PLC Systems

SIEMENS S7, ALLEN BRADLEY, GE-FANUC, MODICON, HITACHI, OMRON and similar other PLCs according to customer desires are used in our PLC Panels.
SIEMENS, MOTOROLA-MOSCAD, TELEMECANIQUE, SATEL, ELPRO, ADAM and similar RTUs are used in our RTU panels on the other hand.

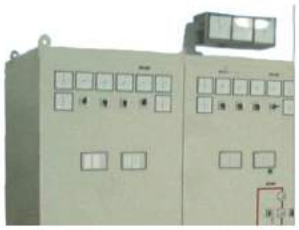
Our Control and Relay Panels are produced in accordance with IEC standarts, technical specifications, and although they are designed to be used in 380 kV – 154 kV – 36 kV substation, our various productions are available that can satisfy the needs of different sectors our productions are manufactured from 2 mm DKP metal sheet.

Although our control and Protection Panels are manufactured with 800*800*2150 mm standard external dimensions, project preparation and manufacture of special panels are also undertaken by our firm. Our panels are designed and manufactured by taking into consideration installation and ease of operation, and have protection classes from IP 41 up to IP 54.

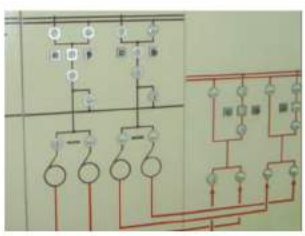


TEIAS – Ismet Pasa Substation

Quality materials inline with the guaranteed characteristics accepted by TEIAS are used in our panels. These are materials such as Measurement Tools, Control Switches, Transmitters, etc.



At the front of our panel, PVC mimic diagrams have been engraved with a thickness of 3 mm, at the formats requested by TEIAS. In these diagrams 380 kV is represented by brown, 154 kV by red, 34.5 kV by blue colors. The main busbars are shown as 10 mm and fiders s 8 mm wide.



CONTROL AND RELAY PANELS TECHNICAL SPECIFICATIONS

Standard		**IEC 604391**	
Operating Voltage	690 V	Nominal Current	-
Insulation Voltage	1000 V	Nominal Short Circuit Endurance Current	Up to 10 kA
Impact Endurance Voltage	8 kV	Nominal Short Circuit Peak Current	-
Frequency	50 – 60 Hz.	Protection Class	Up to 54 IP

TEIAS – Ismet Pasa Substation

SIEMENS, M. GERIN, AREVA, MICROELETTRICA, GE, SEL, ABB brand Over current protection, Distance protection, Differential protection, Transformer protection Line protection, Over and Under Voltage protection, Directional Grounding protection, etc. relays are used in our Relay Panels.

Monitoring of relays without opening the door has been made possible with the 4 mm thick glass used in the front doors of our panels.

Framed type relay panels are also manufactured accordin to requirement to be used at transformer centers belonging to TEIAS.

EXTERNAL DISTRIBUTION BOXES (STM-SDK)

External Distribution boxes (SDK) are produced in accordance with the IEC Standarts, technical specifications and although they are designed to be used in Substaion of 380 kV – 154 kV – 36 kV, we also have various manufactures for the requirements of different sectors.

According to customer request some external boxes 2 mm Aluminum plates, and other production is performed from 2 mm DKP or pre-galvanized metal sheets.

Continuity of grounding is ensured thanks to the grounding of doors and moving parts.Continuity of grounding is ensured thanks to the grounding of doors and moving parts.

Our SDK Panels are manufactured with standard 450*600*900 mm external dimensions and can achieve IP 54 protection class.

TEIAS – 8th Transmission Group Directorate

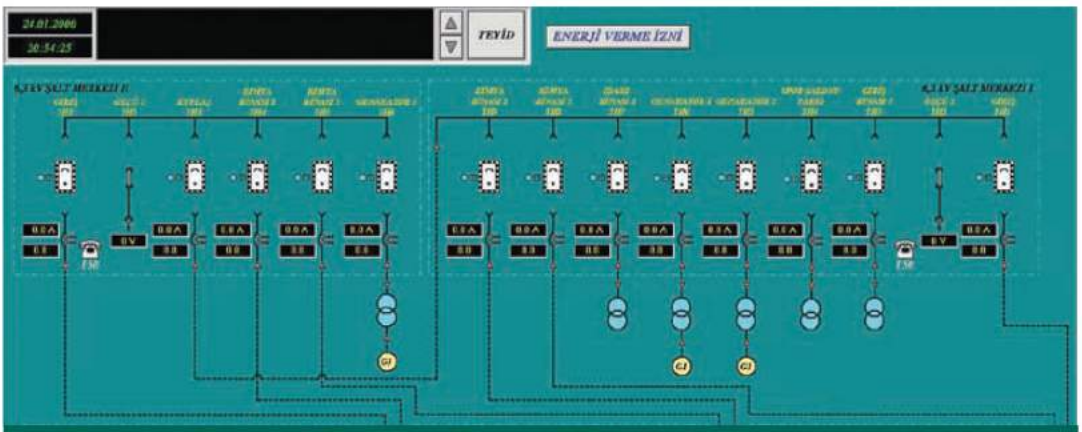
OUR OTHER PANEL MANUFACTURES (STM-EXT)

TEIAS – Adiyaman Substation AC-DC Auxiliary Service Panels (YSP)

TEIAS – Kiziltepe Substation Busbar Protection Panels

TEIAS – Tokat Artova Substation Meter Panels

154 / 34.5 kV Switchyard System Application



Process and Switchgear Systems SCADA Applications

Control Centers

T.C.
TÜRK PATENT ENSTİTÜSÜ

MARKA TESCİL BELGESİ

Marka No : 99 023754 - Ticaret - Hizmet

Setmaş

Marka Sahibi : SETMAŞ ELEKTROMEKANİK SANAYİ VE TİCARET ANONİM ŞİRKETİ
TÜRKİYE CUMHURİYETİ
İvedik Organize Sanayi Bölgesi Hasemak Sanayi Sitesi 22. Cd. 684/1 Sk. No:15-17 İvedik Yenimahalle ANKARA

Emtiası : 09
Elektrik panoları.

Markaların Korunması Hakkında 556 Sayılı Kanun Hükmünde Kararnameye göre 26/05/1999 tarihinden itibaren ON YIL müddetle tescil edilmiştir.

TÜRK PATENT ENSTİTÜSÜ

Registration Certificate

Yönetim Sistem Sertifikasyonu İçin Aşağıda Belirtilen

SETMAŞ ELEKTROMEKANİK SANAYİ VE TİCARET ANONİM ŞİRKETİ

International Certifications Ltd. Tarafından Aşağıda Adı Geçen Standart Şartlarını Karşılamaktadır

ISO 9001:2000

Kalite Yönetim Standardı

Genel Müdür

Sertifika Numarası

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ EKİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS APPENDIX

TÜRKİYE ODALAR VE BORSALAR BİRLİĞİ

KAPASİTE RAPORU

ANKARA
SANAYİ ODASI

Geçerlilik Süresi Sonu
24 NİSAN 2010

T.C.
SANAYİ VE TİCARET BAKANLIĞI

SANAYİ SİCİL BELGESİ

Our sample type test reports belonging to 36 kV Metal Clad Switchgear performed according to type test IEC 62271-200




Our sample type test reports belonging to 12 kV Metal Clad Switchgear performed according to type test IEC 62271-200




Our sample type test reports belonging to L.V. Panels performed according to type test IEC 60439-1




TRADE SERVICE

Our Trade Service is established with the aim of assuring of all electric and electronic ,automation and field instrumentation materials and supplies of any materials that our customers need in the most appropriate condition and in a short time without looking at whether they are from abroad or not. Thanks to the experience of working with various process branches ,our company are in the degree of using enterprise and of making choice. We give consultancy and support about this subject.

SIEMENS

Weidmüller

Raychem®

Schneider Electric

phoenix contact
Innovation at the CORE™

Nexans
Global expert in cables and cabling systems

ALCE

ABB

KONDAS

AREVA

HES KABLO

CONTRACTING ACTIVITIES

Our firm completed with success many projects in different activities as you see in the reference list. Transformer substations, Switchyards, Cement factories, energy production and transmission plants, floor and fodder factories, water purifying plants. Pump stations, silo and dosage systems, raw materials preparing systems, ready mixed concrete plant, Petrochemical plants. These activities are mainly our scope of work.

The activities of our contracting group are executed with a professional group. As we have mentioned at the beginning our company has successfully completed different project in various activities as mentioned in our reference list.

Adana Transformer
Centre switchyard

Yeni Şehitlik Transformer
Centre MV Switchgear

Ankara Ayen-Ostim 154/34.5 kV Transformer Substation, 2x50 MVA Transformer

Transformer Substation

Control Panel

34.5 KV Metal Clad Switchgear

Transformer Switchyard

Adana Yeni Şehitlik 154/34.5 kV Transformer Substation, 2x100 MVA transformer

Transformer Substation

Transformer Substation Switchyard

Transformer Substation

Metal Clad Switchgear

Adana Yeni Şehitlik 154/34.5 kV Transformer Substation, 100 MVA transformer

Switchyard

Transformer Substation Building

Transformers and Switchyard

Control Panel

Kırka Eti Maden Boron Plant, 34.5/6.3 kV Electrical Distribution and Transmission works

34.5 KV Metal Clad Switchgears

Transformer

6.3 KV Metal Clad Switchgears

SCADA Computers

Adana 380/154 kV Transformer Substation, 4x250 MVA transformer

Transformer Substation

Switchyard

Transformer Substation Switchyard

Transformer Substation Switchyard

Turkish Grand National Assembly , Energy distribution centre

LV Distrubition Panel Boards

MV Metal Clad Switchgears

Generator Set

Control Panel Board

Ayen Akbük Wind Energy Powerplant 15*2.5 MVA Electrical Works


Windmills


PLC Panel Board


PLC Panel Board


Transformer Substation

Edirne Enez Transformer Substation Switchyard 2x100 MVA Under Construction


Switchyard Under Construction


Switchyard Under Construction


Switchyard Under Construction


MV Switchgear

AEL Kışlaköy 154/20 kV Transformer Substation 5X31,5 MVA - Under Construction

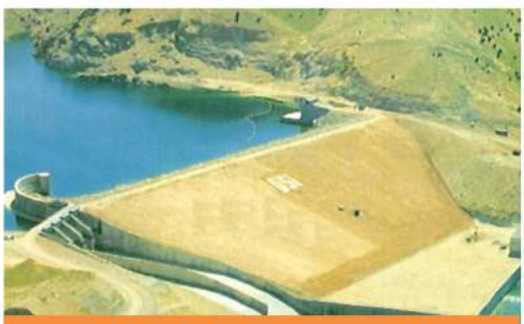
Transformer substation building Under Construction

Enez 154 / 34.5 kV 100 MVA Complete Transformer Substation

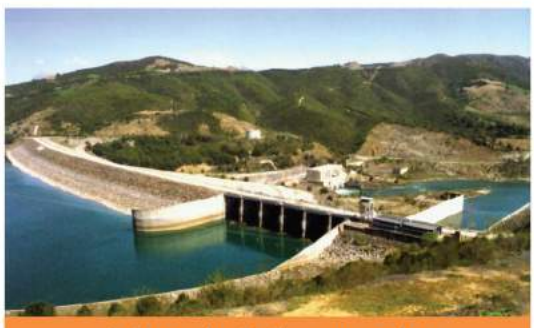
Automatic Level Measurement System Works with satellite Modems, 8 Dams in South of TURKEY

Kılıçkaya hydrolic power plant

Çıldır hydrolic power plant

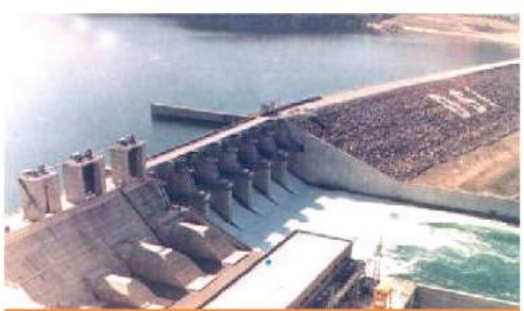


Kapulukaya hydrolic power plant

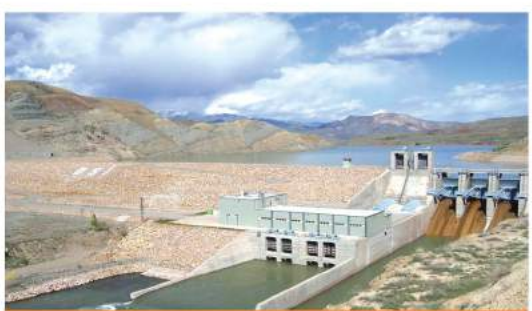


Aslantaş hydrolic power plant

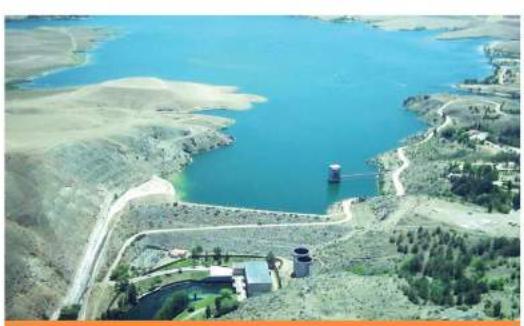
Automatic Level Measurement System Works with satellite Modems, 8 Dams in South of TURKEY



Derbent hydrolic power plant



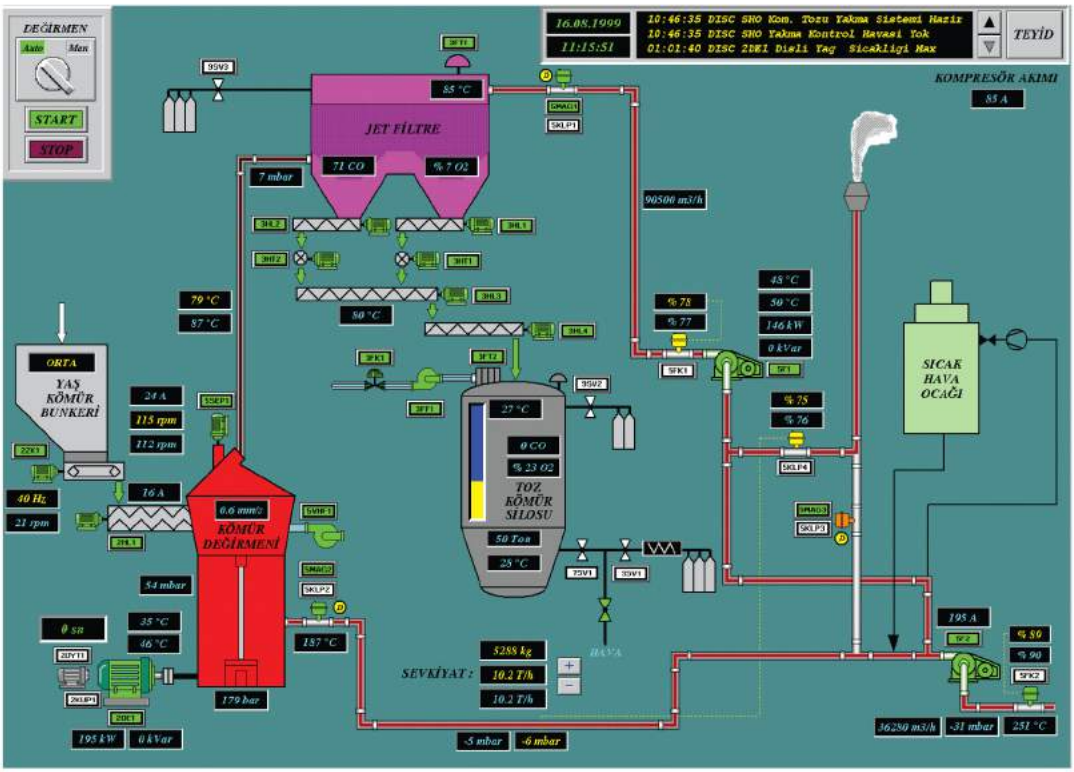
Çamlıgöze hydrolic power plant



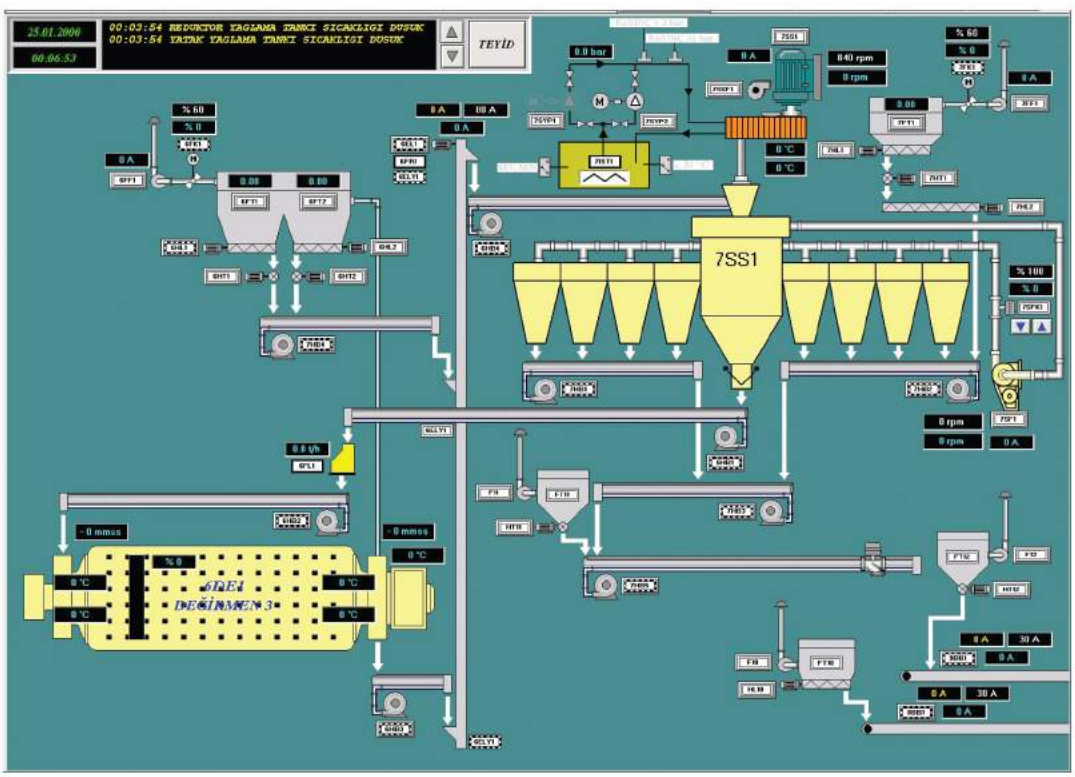
Kesikköprü hydrolic power plant

Yenice hydrolic power plant

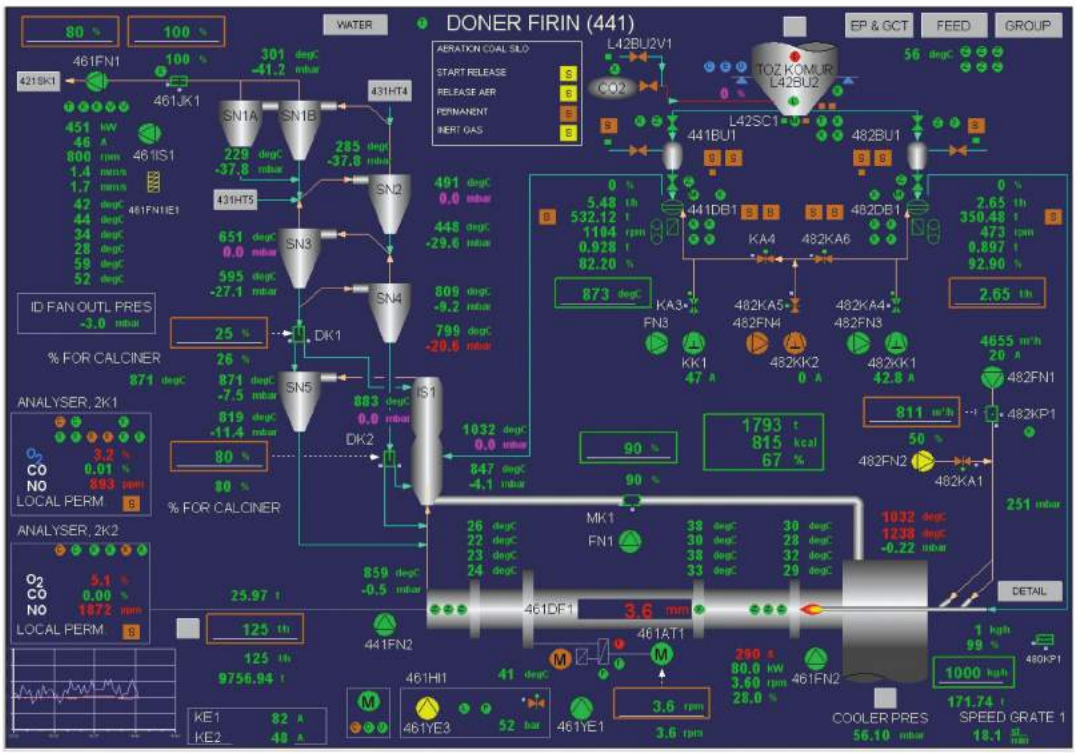
Ünye Cement Factory Coal Mill Automation



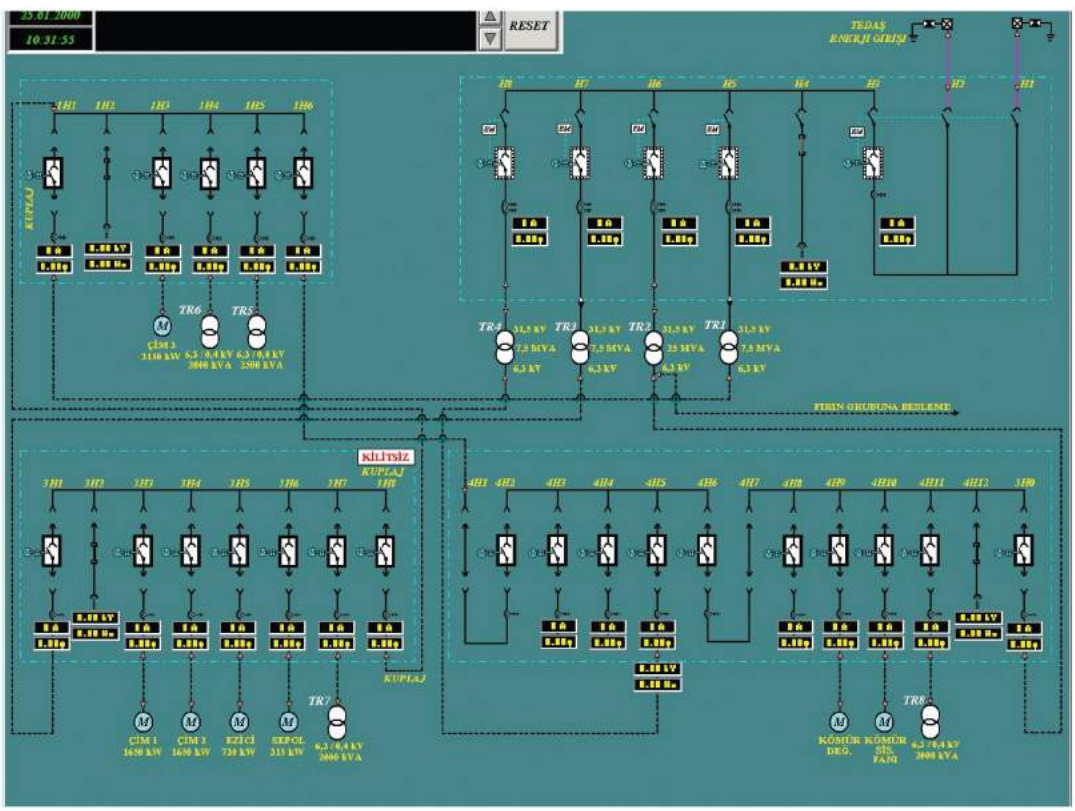
Ünye Cement Factory. Cement Mill Automation



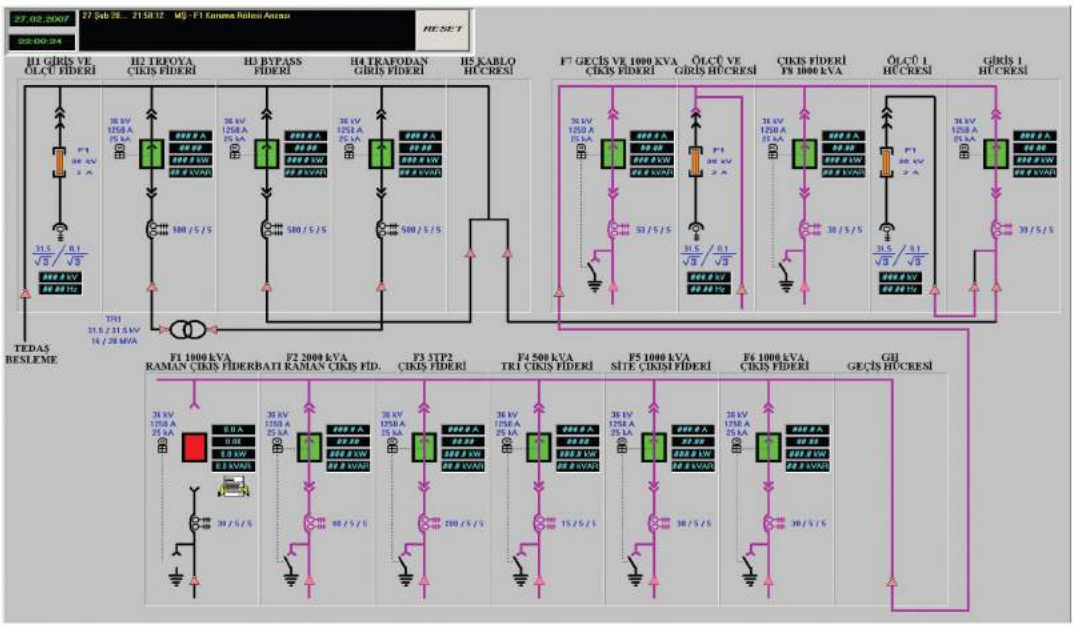
ÇİMSA Kayseri. Cement Factory Software Works and Commissioning



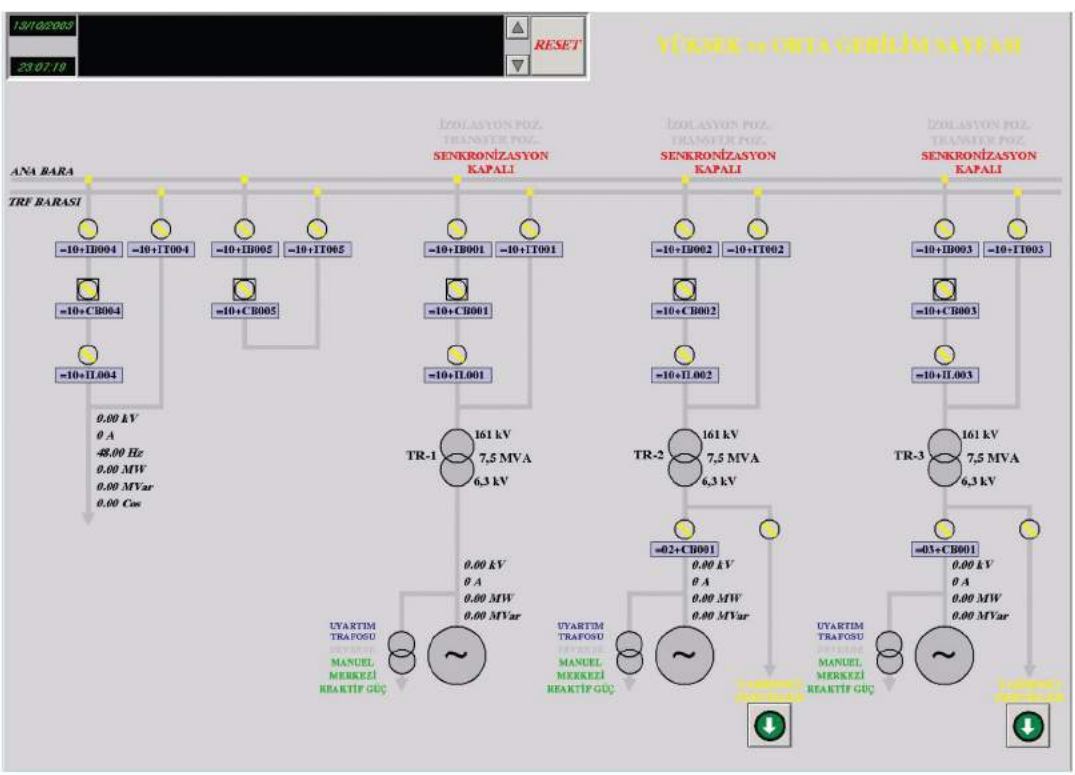
Ünye Cement 34,5 kV / 6,3 kV. Switchgear Automation



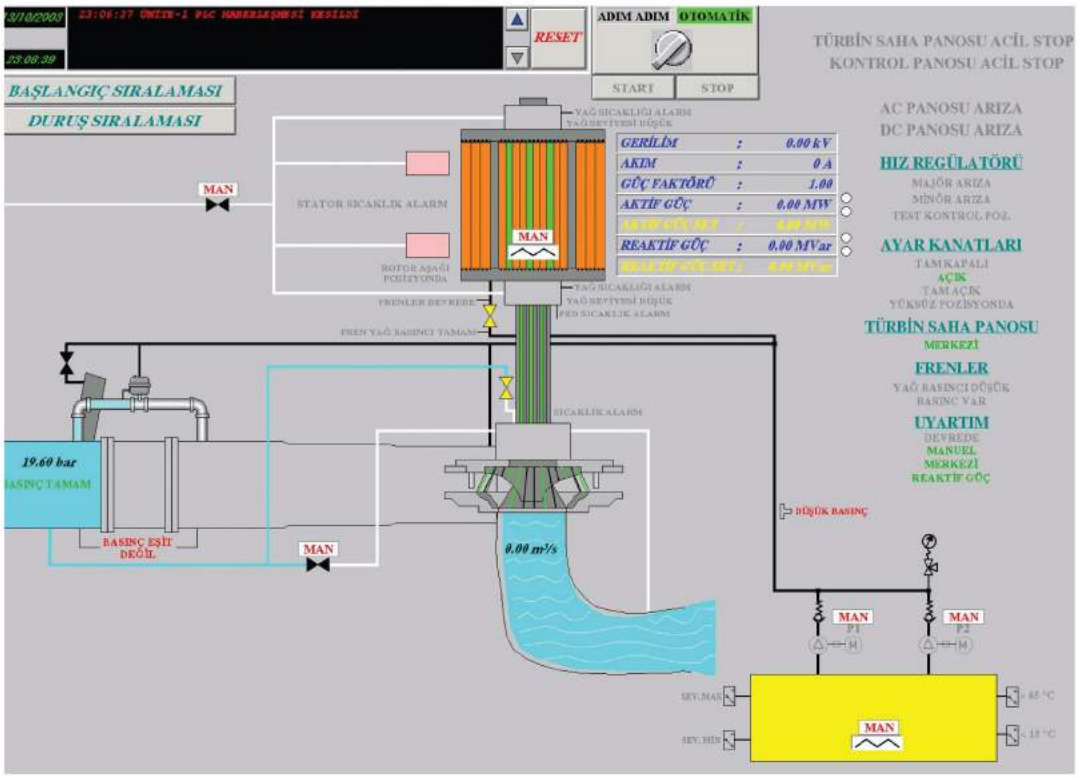
TPAO Batman region 34,5 kV. Switchgear Automation



Mercan Hydroelectric Central. Automation Works



Mercan Hydroelectric Central. Automation Works

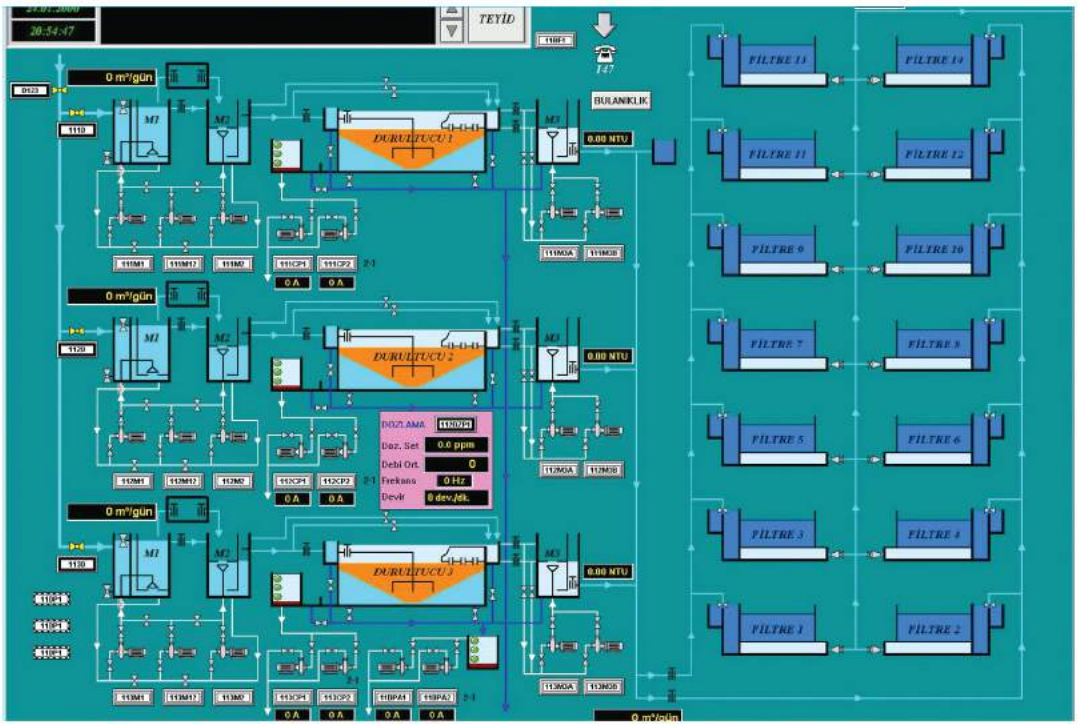


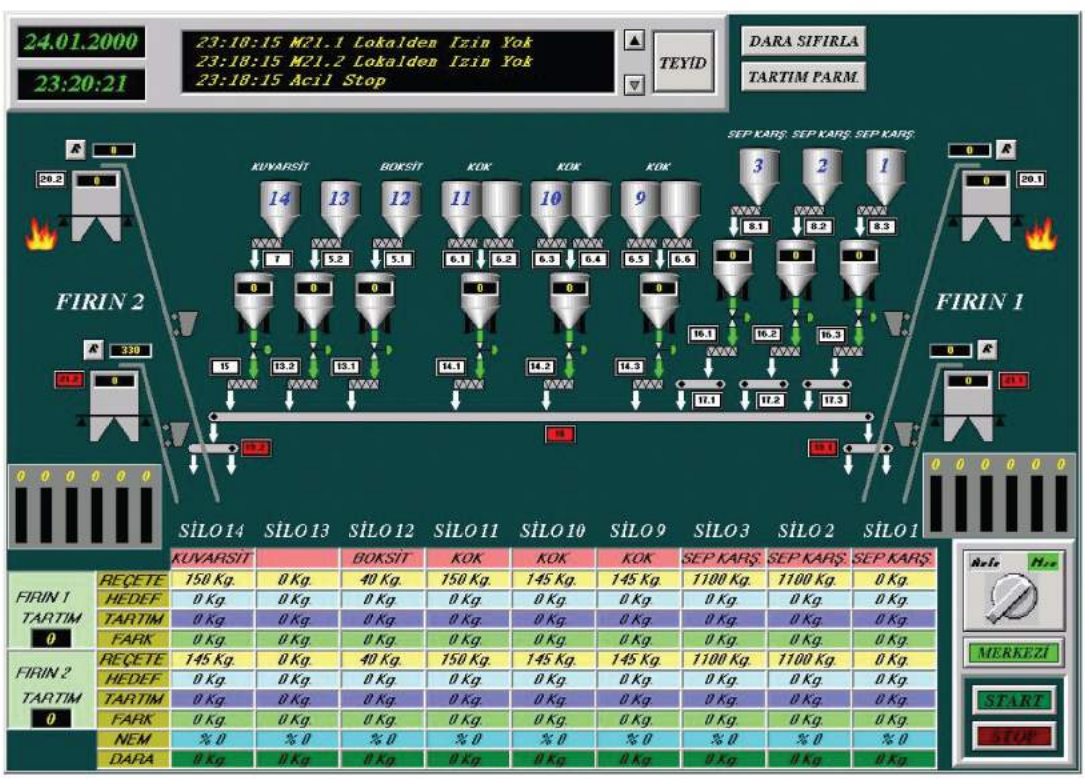
Aski İvedik Water Purifying Plant. Electric and Automation Works

İVEDİK SU ARITMA TESİSLERİ
O.G. ve A.G. SİSTEM OTOMASYONU

SETMAŞ A.Ş.
ANKARA

Aski İvedik Water Purifying Plant. Electric and Automation Works





QUALITY CONTROL

The quality control activities are efficiently carried out by experienced staff and modern test equipment, our firm aim is to offer the best to our clients. That's why we get the appreciation of our customers. By the way we can inform you that Our firm had achieved Turkish Standard Institution TSE EN ISO 9001 quality system certificate in 2008 and all our production done according to TSE EN ISO 9001 quality system certificates, German Standard Instutition VDE and International standards İEC. In our contents of TSE EN ISO 9001 quality system certificate take part of electric-electronic-automation systems, project and manufacturing at industrial plants, production of industrial software, mounting cable of electric-electronic panels and mounting.

TSE KALİTE SİSTEM BELGESİ TSE
QUALITY SYSTEM CERTIFICATE

TÜRK STANDARDLARI ENSTİTÜSÜ
bu belge ile
SETMAŞ ELK. TES. TAAH. VE TİC. A.Ş.
İstanbul Yolu 14. Km. Gerzen San. Sitesi
658. Sok. No:62
Ergazi - ANKARA / TÜRKİYE
firmasının TS-EN-ISO 9001 şartlarına uygun bir KALİTE SİSTEMİNE sahip olduğunu onaylar.

K - Q
TSE-ISO-EN
9000

TÜRK STANDARDLARI ENSTİTÜSÜ
TURKISH STANDARDS INSTITUTION

TURKISH STANDARDS INSTITUTION
hereby certifies that the company
SETMAŞ ELK. TES. TAAH. VE TİC. A.Ş.
located in
İstanbul Yolu 14. Km. Gerzen San. Sitesi
658. Sok. No:62
Ergazi - ANKARA / TÜRKİYE
has a QUALITY SYSTEM which fulfils the requirements of the TS-EN-ISO 9001

Belge No / Certificate No: KG 324/00
Belge Tarihi / Date of Certificate: 13/01/2000
Geçerlilik Tarihi / Valid Until: 13/01/2003

TSE KALİTE SİSTEM BELGESİ TSE
QUALITY SYSTEM CERTIFICATE
EK / APPENDIX

Belge No / Certificate No: KG 324/00
Belge Tarihi / Date of Certificate: 13/01/2000

Belgeli Firma Adı, Adresi:
Name and Address of the certified firm:
SETMAŞ ELK. TES. TAAH. VE TİC. A.Ş.
İstanbul Yolu 14. Km. Gerzen San. Sitesi
658. Sok. No:62
Ergazi - ANKARA / TÜRKİYE

K - Q
TSE-ISO-EN
9000

Belge Kapsamı :
TS-EN-ISO 9001
- Sanayi Tesisleri Elektrik, Elektronik Otomasyon Sistemleri Projelendirilmesi ve Tesisi
- Endüstriyel Yazılım Üretimi
- Elektrik, Elektronik Panoların Kablaj ve Montaj İşleri
Tasarım ve Sunumu

Scope of the Certificate :
TS-EN-ISO 9001
Design and Delivery of
- Project and Installation of Industrial Plants Electrical and Electronic Otomation Systems
- Producing Industrial Softwares
- Cabling and Assembly of Electrical and Electronic Panels

T.C.
TÜRK PATENT ENSTİTÜSÜ

MARKA TESCİL BELGESİ

Marka No : 2006 57814 - Ticaret - Hizmet

Kalite Dotaylarda Gizlidir

Marka Sahibi :SETMAŞ ELEKTRİK SANAYİ TESİSLERİ TAAHHÜT VE TİCARET ANONİM ŞİRKETİ
TÜRKİYE CUMHURİYETİ
Gerson Sanayi Sitesi İstanbul Yolu 14.Km. 658 Sk. No:62 Ergazi ANKARA

Emtiası : 09 , 42
İlişkilidir.

Markaların Korunması Hakkında 556 Sayılı Kanun Hükmünde Kararnameye göre 28/11/2006 tarihinden itibaren ON YIL müddetle tescil edilmiştir.

Kutay KUMBASAR
Enstitü Başkanı a.
Marklalar Dairesi Başkanı

TÜRK PATENT ENSTİTÜSÜ

MARKA EMTİASI

Başvuru Numarası : 2006/57814

T.C.
TÜRK PATENT ENSTİTÜSÜ

MARKA TESCİL BELGESİ

Marka No : 2009 09223 - Hizmet

Setmas

Marka Sahibi :SETMAŞ ELEKTRİK SANAYİ TESİSLERİ TAAHHÜT VE TİCARET ANONİM ŞİRKETİ
TÜRKİYE CUMHURİYETİ
Gerson Sanayi Sitesi 658.sok. No:62 Ergazi
Yenimahalle ANKARA

Emtiası : 42

Markaların Korunması Hakkında 556 Sayılı Kanun Hükmünde Kararnameye göre 25/02/2009 tarihinden itibaren ON YIL müddetle 16/02/2010 tarihinde tescil edilmiştir.

Enstitü Başkanı a.
Markalar Dairesi Başkanı

TÜRK PATENT ENSTİTÜSÜ

SERTİFİKA

Sertifika Numarası

60205

Çevre Yönetim Sistem sertifikası aşağıda adı geçen kuruluşa UDEM Uluslararası Belgelendirme Denetim Eğitim Merkezi San. ve Tic. Ltd. Şti. tarafından verilmiştir.

Setmaş Elektrik Sanayi Tesisleri Taah.ve Ticaret A.Ş.

İstanbul Yolu 14. Km. Gersan San. Sit. 658. Sok. No:62 Ergazi / ANKARA / TÜRKİYE

UDEM Uluslararası Belgelendirme Denetim Eğitim Merkezi San. ve Tic. Ltd. Şti. bu belge ile kuruluşun aşağıdaki standardın şartlarına uygun bir yönetim sistemine sahip olduğunu onaylar.

ISO 14001:2004

Kuruluşun yukarıdaki standard için belgelendirme kapsamı aşağıda ayrıntılı şekilde belirtilmiştir.

Elektrik kabloları ve bağlantıları tesisat, taahhüt ve elektrik, elektronik panolarının kablaj ve montaj işleri,sanayi tesislerinin elektrik, elektronik otomasyon sistemlerinin tesisi

Belgelendirme Denetim Tarihi : 13.04.2010
Tescil Tarihi : 14.04.2010
Yeniden Basım Tarihi : -
Geçerlilik Tarihi : 13.04.2011

Genel Müdür
UDEM Uluslararası Belgelendirme Denetim Eğitim Merkezi San. ve Tic. Ltd. Şti.

UKAS QUALITY MANAGEMENT

WORLD CERTIFICATION SERVICES

CERTIFICATE OF REGISTRATION

Certificate Number
4732

This Certificate has been awarded to
SETMAŞ ELEKTRİK SANAYİ TESİSLERİ TAAHHÜT VE TİCARET A.Ş.
İSTANBUL YOLU 14. KM. GERSAN SANAYİ SİTESİ 658.SOKAK NO:62 ERGAZİ YENİMAHALLE / ANKARA TURKEY

Date First Registered
26/01/2005

In Recognition of the Organization's Management System which complies with
ISO 9001:2008

Date Certificate Expires
21/01/2011

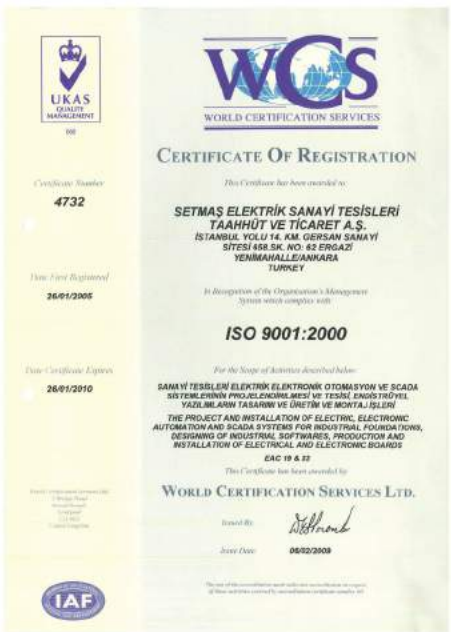
For the Scope of Activities described below:
SANAYİ TESİSLERİ ELEKTRİK ELEKTRONİK OTOMASYON VE SCADA SİSTEMLERİNİN PROJELENDİRİLMESİ VE TESİSİ, ENDÜSTRİYEL YAZILIMLARIN TASARIMI VE ÜRETİM VE MONTAJ İŞLERİ
THE PROJECT AND INSTALLATION OF ELECTRIC, ELECTRONIC AUTOMATION AND SCADA SYSTEMS FOR INDUSTRIAL FOUNDATIONS, DESIGNING OF INDUSTRIAL SOFTWARES, PRODUCTION AND INSTALLATION OF ELECTRICAL AND ELECTRONIC BOARDS
EAC 19 & 33

This Certificate has been awarded by
WORLD CERTIFICATION SERVICES LTD.

Issued By:

Issue Date: 06/03/2009

IAF



UKAS QUALITY MANAGEMENT

WORLD CERTIFICATION SERVICES

CERTIFICATE OF REGISTRATION

Certificate Number
4732

This Certificate has been awarded to
SETMAŞ ELEKTRİK SANAYİ TESİSLERİ TAAHHÜT VE TİCARET A.Ş.
İSTANBUL YOLU 14. KM. GERSAN SANAYİ SİTESİ 658.SK. NO: 62 ERGAZİ YENİMAHALLE/ANKARA TURKEY

Date First Registered
26/01/2005

In Recognition of the Organization's Management System which complies with
ISO 9001:2000

Date Certificate Expires
26/01/2010

For the Scope of Activities described below:
SANAYİ TESİSLERİ ELEKTRİK ELEKTRONİK OTOMASYON VE SCADA SİSTEMLERİNİN PROJELENDİRİLMESİ VE TESİSİ, ENDÜSTRİYEL YAZILIMLARIN TASARIMI VE ÜRETİM VE MONTAJ İŞLERİ
THE PROJECT AND INSTALLATION OF ELECTRIC, ELECTRONIC AUTOMATION AND SCADA SYSTEMS FOR INDUSTRIAL FOUNDATIONS, DESIGNING OF INDUSTRIAL SOFTWARES, PRODUCTION AND INSTALLATION OF ELECTRICAL AND ELECTRONIC BOARDS
EAC 19 & 33

This Certificate has been awarded by
WORLD CERTIFICATION SERVICES LTD.

Issued By:

Issue Date: 06/02/2008

IAF

TÜRK AKREDİTASYON KURUMU

AKREDİTE BELGE İNCELEME FORMU

SAYI:0.14.2.TÜA.6.08.02.00/2217 0 2 5 * 0 Düzenleme Tarihi: 25 ŞUB 2009

SETMAŞ ELEKTRİK SANAYİ TESİSLERİ TAAHHÜT VE TİCARET A.Ş.
ANKARA

İLGİ : 10.02.2009 tarihli yazınız

İNCELENEN BELGEYE DAİR BİLGİLER

Tablo 1

01	Belge Sahibinin Adı	SETMAŞ ELEKTRİK SANAYİ TESİSLERİ TAAHHÜT VE TİCARET A.Ş.
02	Adresi	ANKARA
03	Belge No	4732
04	Belgenin Konusu	ISO 9001:2000
05	Belgenin Kapsadığı EA Kodları	19, 33

BELGELENDİRME KURULUSUNUN AKREDİTASYONUNA DAİR BİLGİLER

Tablo 2

06	Belgelendirme Kuruluşunun Adı	WCS
07	Adresi	İNGİLTERE
08	Akredite Eden Kuruluş	UKAS
09	Akredite Olduğu Faaliyetler	Kalite Yönetim Sisteminin Belgelendirilmesi
10	Akreditasyon Belge No	066

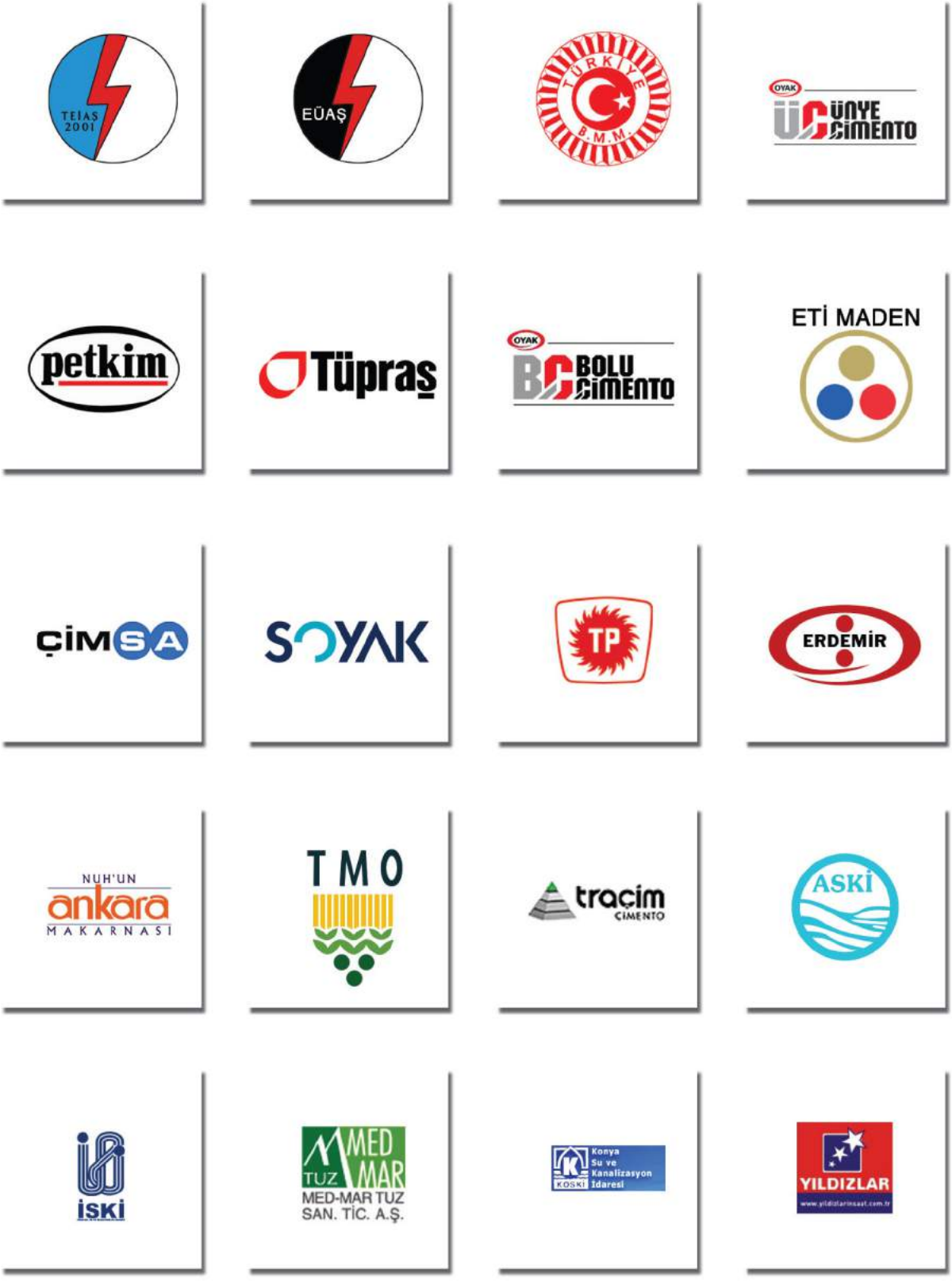
Yapılan inceleme sonucunda; Tablo 1'de tanımlanan belgenin geçerliliğini sürdürdüğü, belgeyi veren belgelendirme kuruluşunun Uluslararası Akreditasyon Forumu (IAF) karşılıklı tanınma anlaşmalarında yer alan ve Tablo 2 madde 08'de belirtilen akreditasyon kuruluşunca akredite edilmiş olduğu tespit edilmiştir.

Emre SEZER
Genel Sekreter

* Bu formda yer alan yazılar formun düzenlendiği tarihe ait geçerlilik

Eski Caddesi No:41 06640 Bakanlıklar / ANKARA
Tel: +90 312 410 82 60 Fax: +90 312 419 87 00 e-mail: turkak@turkak.org.tr

OUR REFERENCES



Transformer Substation and Power Plant

* Ankara Ayen-Ostim 154/34.5 kV Transformer Substation, 50 MVA transformer
* Adana 380/154 kV Transformer Substation, 250 MVA transformer
* Adana Yeni Şehitlik 154/34.5 kV Transformer Substation, 100 MVA transformer
* T.P.A.O. BATMAN 154 kV Transformer Substation 25 MVA Transformer feeder Extension and Metal Clad Works
* T.P.A.O. RAMAN Installation of 36 kV Power Transmission Lines and Switchgear Building works
* Turkish Grand National Assembly , Energy distribution centre
* Kırka Eti Maden Boron Plant, 34.5/6.3 kV Electrical Distribution and Transmission works
* Kayalık Hes Hydroelectric Power Plant, Electrical Works and 7 MVA Generator Installation
* Ayen Akbük Wind Energy Powerplant 15*2.5 MVA Electrical Works
* Çimsa Eskişehir Cement Factory 34.5/6.3 kV Switchgear Revision
* MERCAN Hydroelectric Power Plant Automation works
* SUTCULER CO. INC. Hydroelectric Central Electric and Automation Application
* Orhaneli Termic Powerplant 16 pieces Fuel-oil Burner renewed
* Sivas Kangal Termic Powerplant 12 pieces Fuel-oil Burner renewed
* ITM-23 Protection and Secondary Relay System Works of the Following Transformer Substations Kızıltepe 380 kV, Kızıltepe 154 kV, Izmir 154 kV, Adıyaman 154 kV, Büyükkarıştıran 154 kV Batman 154 kV, Seka 154 kV, Yeniköy 154 kV, Gölbaşı 154 kV, Van Erciş 154 kV, Artvin Hopa 154 kV, Ismetpaşa 154 kV, Ladik 154 kV, Izmir Ödemiş 154 kV, Oymapınar 154 kV, seka 154 kV, Yeniköy 154 kV, Tunceli 154 kV, Pelhamut 154 kV has been done.
* Bursa Orhaneli Thermal Power Plant 15,75 kV - 247 MVA Steam Generator Protection System and Renewing of 6.3 kV Control system. Testing and Commissioning.
* EÜAŞ 2x1600 kVA Generator Instrumentation and Control System Renewing
* EÜAŞ Kangal Thermal Power Plant Coal Intake System Electrical and Automation Works
* TPAO TRAKYA Region Meter Data Reading of 110 Natural Gas meter With Gsm System.

Transformer Substations Under Construction

* AEL Kışlaköy 154/20 kV transformer Substation
* Edirne Enez 154/34.5 kV Transformer Substation

Cement, Lime, Gypsum Factories and Ready Mixed Concrete Plant

* ÜNYE Cement Factory Charcoal Mill Electric, Automation and SCADA Application-DCS Teleperm AS215
* ÜNYE Cement Factory 1. and 2. Cement Mills and Overwhelming Foundation Electric, Automation and Scada Application
* ÜNYE Cement Factory 3. Cement Mill Electric, Automation and Scada Application
* ÜNYE Cement Factory 36 kV and 6.3 kV Switchgear centre Electric, Automation and Scada system Modernization
* ÜNYE Cement Factory Packaging Consolidation Electric, Automation and Scada Application
* ÜNYE Cement Factory 154/36 kV 50 MVA stepdown transformer Centre Automation Application
* ÜNYE Cement Factory Production of 10 MVA LV Distribution Panel , Mounting and commissioning.
* ÜNYE Cement Factory 40 MVA 36 kV Switchgear Centre and 6,3 kV NXAIR Switchgear Panels Energy Automation
* ÜNYE Cement Factory Trommel Drying Unit Electric, Automation and Scada system
* ÜNYE Cement Factory Ready Mixed Concrete plant Electric, Automation and Scada system
* ÜNYE Cement Factory Filtration Unit Electric, Automation and Scada system
* ÜNYE Cement Factory Temperature centre Electric, Automation and Scada system
* ÜNYE Cement Factory Filtration Units Energy Consumption Scada system
* ÇİMSA Kayseri Clinker Production Plant Site Installation, Start-up and Test operations
* DOĞAN Gypsum Factory Rehabilitation of Automation system
* Bolu Cement Factory Dedusting Unit
* BOLU Cement Factory Sarayköy Grinding and Packaging Unit Electric, Automation and Scada system
* BOLU Cement Factory İzmit Ready Mixed Cement plant Automation
* KÜMAŞ Basic Refractory Brick factory Electric and Automation Application
* GÖKLER LIME Factory MV, LV and Compensation System Productions of Panel, Mounting and commissioning
* GÖKLER LIME Factory Limestone Breaking Unit Electric and Automation Application
* LALAPAŞA Cement Factory Tras Drying plant Electric and Automation Application
* VAN Cement Factory-Gas Cooling Tower and electro filter Electric and Automation works
* Çimsa Cement Factories Eskişehir Cement Factory Electrical Works
* Çimsa Cement Factories kayseri Cement Factory Electrical Works
* Çimsa Cement Factories Mersin Cement Factory Electrical Works
* Çimsa Cement Factories Lalahan Cement Factory Electrical Works
* ÇİMSA Kayseri Clinker Production Plant Production of Low Voltage Distributing Panels and MCC Panels and Mounting
* Artova Cement Factory Switchgear and LV Panel Board Production, Installation and Commissioning

Iron-Steel and Petrochemical Foundation

* ERDEMIR Number 2 Blast Furnace Foundry Dust Extraction Unit Electric, Automation and Scada works
* PETKIM CO. INC. Chlorine Alkali Factory Data Collecting and monitoring System
* MERSİN Trakya Glass Factory PLC and PC System Panelboards Production and commissioning.
* ÜNİLEVER Adana PLC System Panels Production, Installation and Commissioning
* ÇEMAŞ Steel Factory, Automation of the Spade Machine
* ODESA Ferment Factory, Production of Automation Panel
* KARDEMİR STFA, Winch Automation Project Design and Production of Automation Panels
* DEMİR-EXPORT Copper Flotation Plant, Electric and Automation Works
* T.P.A.O. Kazak Turk Munay, Exporting of the Automatic Transfer Switch Panels
* T.P.A.O. BATMAN Petroleum Production Area with Central Switchgear Centre 8 Km. Distance TeleControl Works
* T.P.A.O. BATMAN, Production of 8 Compensation Panels (140-320kVAR)
* T.P.A.O. ADIYAMAN 6 pieces of automatic transfer switch panels Production, Installation and Commissioning

Mining Sector

* KONYA Corm Magnetite Factory Revision Works
* ETİ Holding Elazığ Ferro Corm Number 2 Blast Furnace Plant Ore Dosing Automation
* EÜAŞ AEL Operation Directorate- Conveyors Electric, Automation and Scada works with Radio Modem
* EÜAŞ AEL Operation Directorate- 7 piece 6,3 kV 6*430 kW Conveyor Driving System Station. Electric, Automation and Scada Works
* EÜAŞ AEL Operation Directorate-Distributing Station of Conveyor Electric, Automation and Scada Works
* Ordu Ünye IMC Mining Plant Bentonit Production Unit Electrical and Automation Works

DAMS

* Automatic Monitoring and Level Measurement System Works with satellite Modems, 8 Dams in South TURKEY

Food Sector (Flour ,Fodder ve Salt Factories)

* NUH'UN ANKARA MAKARNA Factory ANKARA Organized Industrial Zone 2. Semolina Mill Electric, Automation and SCADA Works
* MEDMAR ÇANKIRI Refined Salt Factory Electric and Automation Works
* EREN Flour Industry Electrical Works of Transformer Central Modernization
* TMO Ankara Region Directorate Semi Mechanical Horizontal Depots Electric and Automation Works
* ELİF MAKARNA Electrical and Automation Works

Water Purifying Foundations and Pump Stations

* ASKİ İVEDİK Drinking Water Purifying Plants. Electric, Automation and SCADA Works (1. and 2. Plant)
* KOSKİ Hasanköy Water Pump Station. Electric, Automation and SCADA Works
* KOSKİ Yazır Water Pump Station. Electric, Automation, SCADA and RTU System Radio Data Transfer Works
* İSKİ Ömerli Barrage Drinking Water Pump Station- Motor Starting and Control Panel and Software

Military Foundations

* HAVELSAN CO. INC. Simulator Power Distribution Panels Production and Automation Works