

# Enerji Projelerinizin Deneyimli Ortağı...



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# Sayfasan Çevre Dostu



Sitemizden tüm ürünlerimizi inceleyebilir bilgi için iletişim kurabilirsiniz. Lütfen telefonunuzdan QR kodunu okutunuz.





TUTKU İLE BAĞLANMAK GÜVENMEK İNANMAK VE İNANDIĞIN BU YOL DA YAŞANTINA YÖN VERMEK HAYATIN DA KENDİN VE SEVDİKLERİN İÇİN YENİ BİR SAYFA AÇMAK

## **COMPENSATION SYSTEMS**



## We are the tailors of energy sector!

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As EVA Elektromekanik, with our expert team, we are making estimations and measurements at your site to be able to provide you the most suitable compensation solutions that perfectly fit your exact needs.

We are designing our compensation units by using the latest technology and with our high quality policy, manufacturing them with our experienced employees by using high quality materials.



## **Easy Handling**

Our compensation systems are designed for easy handling.



## **Easy Installation**

Our compensation systems are designed for easy installation at site.



## Reliability

Our compensation systems are designed for long operating life at side.



## Easy Usage

Our compensation systems are designed for easy usage at side.





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## **COMPENSATION SYSTEMS**

## LV COMPENSATION PANELS

## eVAR-FT Compensation Panel with Thyristor Switch

eVAR-FT type of compensation panels are used in the network at the places where the harmonic pollution levels are above limits and the load changes are fast.

eVAR-FT type of compensation panels are produced with reactors and thyristor switches as standard.

eVAR-FT type of compensation panels are produced with the cylindrical type tube capacitors which has continuous operating voltage of 440-525V.





## eVAR-SFC Filter Compensation Panel

eVAR-SFC type of compensation panels are used in the network at the places where the harmonic pollution levels are above limits and the load changes are slow.

eVAR-SFC type of compensation panels are produced with reactors as standard and it has a flexibility to be equipped with thyristors instead of contactors.

eVAR-SFC type of compensation panels are produced with the cylindrical type tube capacitors which has continuous operating voltage of 440-525V.











## eVAR-DC Dynamic Compensation Panel

It is necessary to use too many single-phase capacitors for compensation where the load between phases is unbalanced and / or the load change is rapid such as bank branches, welding workshops, facilities which uses crane systems, restaurants, jewellery shops etc. In the places where the load change is too rapid, thyristor switching must be applied also. This kind of requirements in these places increase the initial investment and operating costs. In addition, these systems do not work in the places which have both capacitive and inductive reactive power demands and all investment is wasted.

Thanks to eVAR-DC LV compensation panels; customer no needs to pay reactive energy and investment costs whether the loads in the facility are unbalanced, fast or even capacitive.

eVAR-DC LV compensation panels are produced as three types ; s30, s50 and s100.



## eVAR-SC Classical Compensation Panel

eVAR-SC type of compensation panels are used in the network at the places where the harmonic pollution levels are below limits and the load changes are slow. These panels are base model panels which are designed for a cheaper system cost. eVAR-SC type of compensation panels are appropriate for extra reactor addition in case of a need. It also has a flexibility to be equipped with thyristors instead of contactors.

eVAR-SC type of compensation panels are produced with the cylindrical type tube capacitors which has continuous operating voltage of 440V.

eVAR brand thyristor modules are used in eVAR-SC type compensation panels.







## **MV COMPENSATION SYTEMS**

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## eVAR-HVP MV Compensation Panel

eVAR-HVP type MV compensation panels are especially used for supplying the stable inductive and reactive power demands of medium voltage motors and step-down transformers.

eVAR-HVP type MV compensation panels are manufactured with current limiting reactors, fixed or vacuum type contactors.

eVAR-HVP type MV compensation panels are produced in the range between 3 kV-36 kV.







## **COMPENSATION PRODUCTS**

### eVAR-TSC Thyristor Modules

eVAR-TSC thyristor modules are used where the load change is fast and contactor switching is not possible such as harbors, arc furnaces, steel mills, railway used facilities etc. to be able to supply fast and accurate compensation.

eVAR-TSC switching thyristor modules are produced as three types; 12.5kVAr, 25kVAr and 50kVAr.







### **Shreem LV Capacitors**

#### SHREEM LV POWER CAPACITORS

Capacitor pressure increases inside the capacitors due to self healing features they have inside when they are under extensive loads. This results in bursting of the capacitor. In order to prevent them from bursting, protection is provided inside the capacitors. When pressure increases inside the capacitor, there will be a change in the lenght of capacitor due to expansion and this change enables the conductor disconnect from capacitor and separate it from the circuit. We are choosing Shreem capacitors due to their outstanding features listed below:

#### SHREEM CYLINDRICAL - MKP CAPACITORS FEATURES

- Self healing type
- With metalized polypropylene film
- Special design in aluminium case
- Expolosion proof design with internal fuse protection against fire
- Very low heat dissipation
- External low losses due to advanced winding and zinc spray equipment

#### APPLICATION

- Automatic Power Factor Correction
- Fixed Power Factor Correction
- Group Power Factor Correction
- Harmonic Filter SystemsHarmonik Filtre Sistemleri





## **Shreem MV Capacitors**

From 2.4 kV to 20,70 (36) kV 1 / 3 phase, 50 / 60 Hz Medium Voltage Capacitors

- Maximum voltage is 20.70(36) kV
- Maximum output power is 750 kVAR (Single Phase)
- All Polypropylene (APP) dielectric film
- Low losses

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- Up to 170 kV Basic insulation Level (B.I.L) appropriate for internal or external applications
- Outstanding electrical performance
- Stainless steel improved tank fracture characteristics
- Complying with IEC & IS standards
- Low cost per kVAR

#### Applications

- Power factor correction
- Line losses reducing
- Voltage drop minimizing

Power capacitors can be installed as a default or separate. Switched or non-switched types are listed below:

- Pole-mounted type bank
- Open switch type bank
- Enclousure (Cabin) type bank









## eVAR-HF Harmonic Filter Reactors

#### P = 7%

Harmonic Filter Reactors with 7% P Value

This type of harmonic reactors reduce harmonic currents and losses and extend the life of the capacitor by coupled in series with capacitors. The most commonly used resonance frequency is 189 Hz and impedance factor is 7%.

#### P = 14%

Harmonic Filter Reactors with 14% P Value

This type of harmonic reactors reduce harmonic currents and losses and extend the life of the capacitor by coupled in series with capacitors. The most commonly used resonance frequency is 134 Hz and impedance factor is 14%.



### eVAR-TSR Shunt Reactors

eVAR-TSR shunt reactors are mostly used in dynamic compensation applications such as military, rail systems, university campuses etc. to eliminate the capacitive effects of passive harmonic filters and also to eliminate the capacitive reactive power consumption in facilities such as bank branches and GSM base stations.





## LV DISTRIBUTION SYSTEMS



## With fussiness of a tailor!

As EVA Elektromekanik, with our expert team, we are providing you the most suitable LV distribution solutions that perfectly fit your exact needs.

We are designing our LV distribution units by using the latest technology and with our high quality policy, manufacturing them with our experienced employees by using high quality materials.





## **Compact Design**

Our LV distribution systems are designed for filling minimum space at site.



## **Easy Installation**

Our LV distribution systems are designed for easy installation at site.



Our LV distribution systems have customized design to satisfy all the needs of customer at site.



## **Easy Usage**

Our LV distribution systems are designed for easy usage at side thanks to modular and bolted type options.



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## LV DISTRIBUTION SYSTEMS

## eVAR-STP SOLAR COLLECTING PANELS

## Main Collecting Panel

The energy coming from AC collecting panel or central inventor output is directed to LV main collecting panels via power cables to make the energy safe and under control. Solar collecting panel is equipped with energy quality measuring units, related system protection and auxiliary equipments. The energy collected in solar collecting panel is directed via the connectors which is capable of working in high current limits to transformers to be able to increase the voltage level. Solar panels are produced according to TSE, CE ve ISO 9001–14001 standards.









## AC Collecting Panel

In the case of series inventors are being used, this panels are preferred to be able to make the connections of AC network cables. The collected energy is carried from this panel to main distribution one with a single cable. This panel is equipped with intermediate coupling, extra safety and switching mechanisms inside. This panels are manufactured as two types: glassfiber-reinforced and metal.

## DC Collecting Panel

In the systems where central inventors are used, DC energy is collected in DC distribution panels. There is one DC distribution panel for each series. Energy is carried from DC distribution panels to central invertor system with a DC network. Related safety and switching equipments are used in DC distribution panels.

### Solar Compensation Panels

These panels are used for compensating the reactive power of solar power plants when they are not producing energy. This system takes the current information from MV side differently from other compensation panels.













## eVAR-ADP LV Distribution Sistems

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Our company manufactures modular panels with intelligent connection modules powered by easy assembly and disassembly features, synchronization panels, network - generator transfer panels and main distribution panels according to IEC 61439-1 and IEC 61439-2 standards with different sizes and mounting types, up to 4000 A current level.

Under our proposal department coordination, with our expert team working in our design and manufacturing departments, we are giving wide range of services to our esteemed customers such as technical support before and after tender stage, budgetary analysis, preparing panel drawings and layouts according to needs.













## eVAR-SP METERING PANELS

Metering panels of facilities which have multiple electrical energy subscribers such as shopping malls, housing estates, main commercial centers etc. are manufactured with modular panels with intelligent connection modules powered by easy assembly and disassembly features.

Under our proposal department coordination, with our expert team working in our design and manufacturing departments, we are giving wide range of services to our esteemed customers such as technical support before and after tender stage, budgetary analysis, preparing panel drawings and layouts according to needs.



## eVAR-SP FLOOR BOARDS

Floor boards are appropriate to use either under or above plaster. In the production of board body and cover, DKP steel, hard plastic and glass-fibre-reinforced polyester materials are used. Board dimensions change according to fuse quantity and sequence. They are produced with sheathing / curtain and floor sheets according to feature of usage area.

Floor boards which are mainly used in governmental buildings, schools, hospitals, shopping malls, main commercial centers etc. are manufactured with modular panels with intelligent connection modules powered by easy assembly and disassembly features. They can be used either under or above plaster.

Under our proposal department coordination, with our expert team working in our design and manufacturing departments, we are giving wide range of services to our esteemed customers such as technical support before and after tender stage, budgetary analysis, preparing panel drawings and layouts according to needs.







## **PROTECTION AND CONTROL SYSTEMS**

Every system working with electricity may be dangerous. Because of this reason, these systems must be controlled continuously to be able to prevent emergency situations by interfering immediately. Hence control and protection systems are very important.

To automatically control the system, voltages, currents and leakages must be followed carefully to be sure that they are within certain limits.

As well as motor starter panels, step-down transformer substation panels (up to 400 kV level) are also manufactured by our technical team studiously.









## eVAR-MCC MOTOR CONTROL PANELS

Our company manufactures motor control units as indoor or outdoor for the motors in different applications such as pump stations, cement factories, heat centers, irrigation facilities, industrial zones etc. thanks to modular panels with intelligent connection modules powered by easy assembly and disassembly features. Also our proposal department has ability to prepare the motor control projects of these type of facilities from the beginning.

Under our proposal department coordination, with our expert team working in our design and manufacturing departments, we are giving wide range of services to our esteemed customers such as technical support before and after tender stage, budgetary analysis, preparing panel drawings and layouts according to needs.



## eVAR-PTC PIANO TYPE CONTROL PANELS

Our company manufactures piano type CNC designed special control panels for different applications such as step-down transformer substations, power plants, SCADA monitoring stations, pump stations etc. in where the central control is important. Also our proposal department has ability to prepare the piano type control projects of these type of facilities from the beginning.

Under our proposal department coordination, with our expert team working in our design and manufacturing departments, we are giving wide range of services to our esteemed customers such as technical support before and after tender stage, budgetary analysis, preparing panel drawings and layouts according to needs







## eVAR-PLC PROGRAMMABLE CONTROL PANELS (PLC)

Our company manufactures programmable control panels for different applications power plants, pump stations, cement factories, heat centers, smart buildings etc. in where sequence, motion and process controls are important. Also our proposal department has ability to prepare the programmable control projects of these type of facilities from the beginning.

Under our proposal department coordination, with our expert team working in our design and manufacturing departments, we are giving wide range of services to our esteemed customers such as technical support before and after tender stage, budgetary analysis, preparing panel drawings and layouts according to needs.



## **eVAR-PLC** SECONDARY PROTECTION PANELS

Our company manufactures CNC designed secondary protection panels for different applications such as power plants, transmission systems, distribution systems, pumping stations, cement factories etc. in where the energy comes from high voltage lines. Also our proposal department has ability to prepare secondary protection projects of these type of facilities from the beginning.

Under our proposal department coordination, with our expert team working in our design and manufacturing departments, we are giving wide range of services to our esteemed customers such as technical support before and after tender stage, budgetary analysis, preparing panel drawings and layouts according to needs.









## **CONTROL BOXES**

Circuit breaking and protecting abilities of the MV switchgears are directly related with the reliability of the control boxes of the switchgears. For this reason to transport the opening and closing signal to the related part of the switchgear is very important and needs speciality. Our company produces modular and riveted control boxes according to needs of our partners and related technical specifications of distribution utilities.









Dürüst çalışmanın ve verilen sözleri tutmanın karşılığında elde edilen güvenin, bir şirket için en önemli sermaye olduğunu biliyoruz...



ENERJI PROJELERINIZIN DENEYIMLI ORTAĞI...



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