EATON
Licensed Panelbuilder

SIEMENS
LOCAL PANEL PARTNER

AFB ENERGY

IEC 61439-1 / 2 & IEC 62208 Switchboards with Type Test Certificate

IEC 62208 & IEC 60670 Switchboards with Type Test Certificate

IEC 61439-1 / 5 Switchboards with Type Test Certificate

IEC 60890 & IEC 60865 Validation

IEC 61641 Switchboards with Arc Fault Test Certificate

IEC 60068-3-3 Switchboards with Seismic Test Certificate

Our Founding Purpose

We adopted Great Leader Atatürk's philosophy stated the by the words "Those who set out not to rest never get tired" as our motto. On our auspicious path, we have first prepared the documentation that confirms our conformity to international standards by getting type test certifications and/or verifications, and we aimed to become the largest Low Voltage Switchboard manufacturer in Turkey, and then to become a competitive actor in global markets.

It is our obligation to our country, which raised us, to improve the workforce of our company and our country by training our own workers and engineers and providing them with new competencies.

We follow in your footsteps…

TABLE OF CONTENTS

“We do not need anything except for one thing, to be ***hardworking.***”

Gazi M. Herwaf

ABOUT US

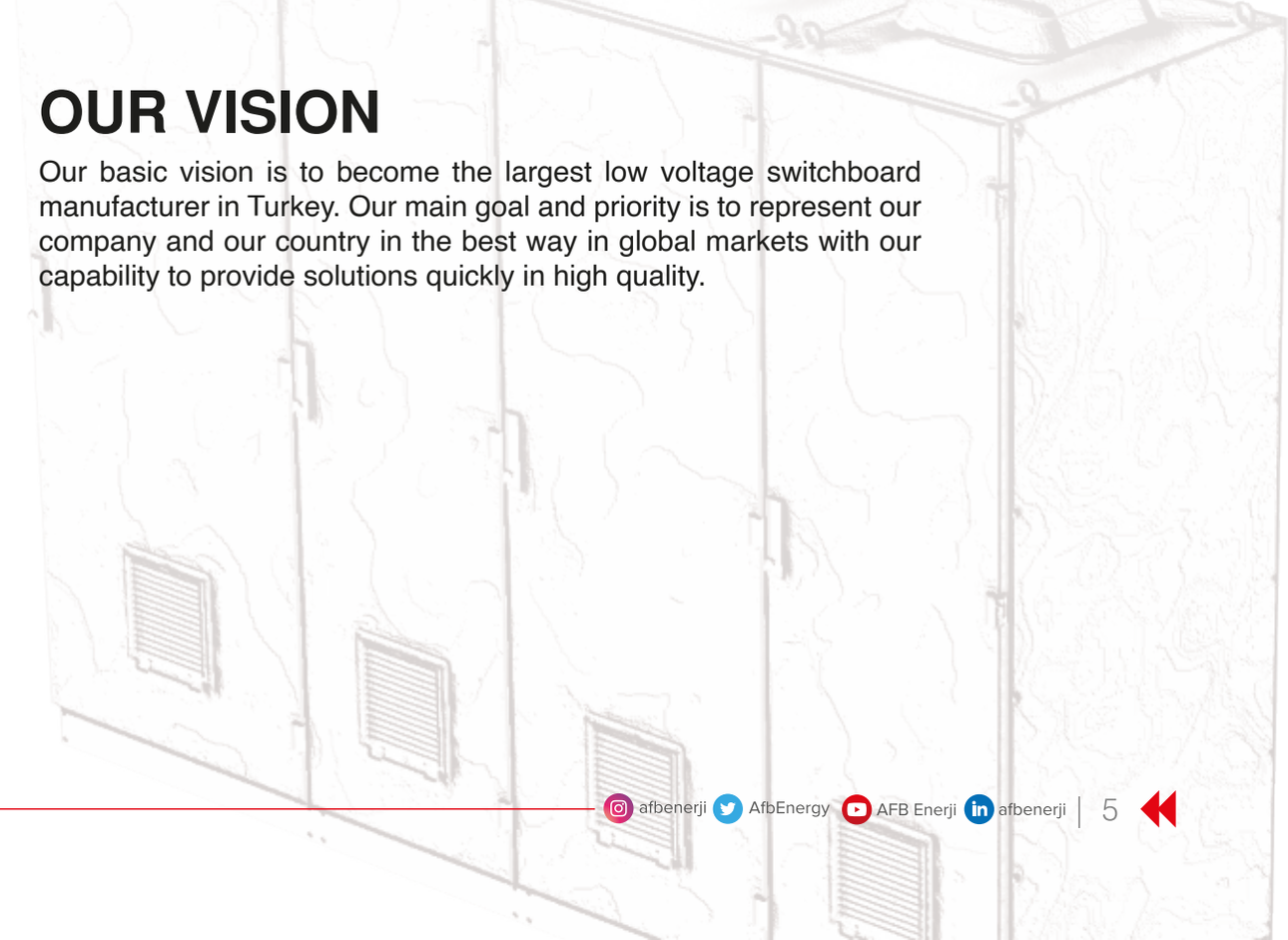
Founded in 2001, ABF Enerji Mühendislik Ltd. Şti. (ABF Energy Engineering Ltd. Co.), is a specialized engineering company manufacturing Low Voltage Switchboards in an indoor area of 6500 m2.

OUR MISSION

It is our priority to produce efficiently at the lowest possible costs and to meet customer requirements and demands in line with market dynamics based on a data-driven system that can be measured and evaluated. It is our desire, our effort, and our rule to associate the AFB brand with high-quality and reliable products based on the experience we have gained throughout 20 years of business life.

OUR VISION

Our basic vision is to become the largest low voltage switchboard manufacturer in Turkey. Our main goal and priority is to represent our company and our country in the best way in global markets with our capability to provide solutions quickly in high quality.



OUR QUALITY
CERTIFICATES


YERLİ MALI BELGESİ

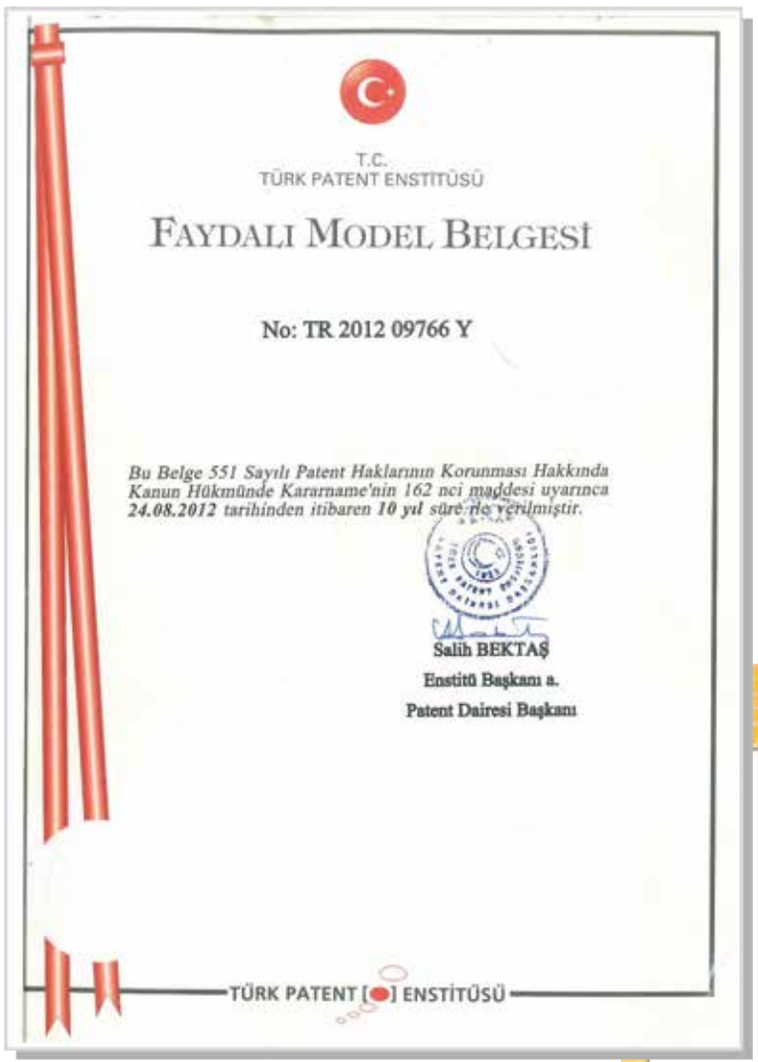

TÜRK STANDARDLARI ENSTİTÜSÜ
TÜRK STANDARDLARINA UYGUNLUK BELGESİ
TURKISH STANDARDS INSTITUTION
CERTIFICATE OF CONFORMITY TO TURKISH STANDARDS


Kalitest
SERTİFİKA–CERTIFICATE OF REGISTRATION
ISO 9001:2015


Kalitest
SERTİFİKA–CERTIFICATE OF REGISTRATION
ISO 14001:2015


Kalitest
SERTİFİKA–CERTIFICATE OF REGISTRATION
ISO 45001:2018

OUR QUALITY
CERTIFICATES



T.C.
TÜRK PATENT ENSTİTÜSÜ

FAYDALI MODEL BELGESİ

No: TR 2012 09766 Y

Bu Belge 551 Sayılı Patent Haklarının Korunması Hakkında Kanun Hükmünde Kararname'nin 162 nci maddesi uyarınca 24.08.2012 tarihinden itibaren 10 yıl süre ile verilmiştir.

Salih BEKTAŞ
Enstitü Başkanı a.
Patent Dairesi Başkanı

TÜRK PATENT ENSTİTÜSÜ

Utility Model Certificate granted by Turkish Patent Institute for the Modular Withdrawable and Socket Type Compensation Switchboards not only for their mechanical properties but also their electrical properties.

TASARIMLAR DAİRESİ BAŞKANLIĞI

TÜRK PATENT

TASARIM TESCİL BELGESİ

2. YENİLEME

TESCİL NUMARASI : 2007 03523

04/07/2007 tarihinde tescil edilen ve bu belge ekinde yer alan tasarımın tescili 554 Sayılı Endüstriyel Tasarımların Korunması Hakkında Kanun Hükmünde Kararname'nin 36 ncı maddesi uyarınca 04/07/2017 tarihinden itibaren geçerli olmak üzere 5 yıl müddetle yenilenmiştir. İşbu belge 16/08/2017 tarihinde düzenlenmiştir.

Prof. Dr. Habip ASAN
Türk Patent ve Marka Kurumu
Başkanı

Design Registration Certificate granted by Turkish Patent Institute for IP54 Outdoor Type Switchboards, which have completely bolted assembly.

OUR TYPE TESTING CERTIFICATES

Allianz Teknik

OUR TYPE TESTING CERTIFICATES

SWITCHBOARD TYPE	STANDARD	DESCRIPTION	TEST CERTIFICATES
EMPTY SWITCHBOARD + PANEL	IEC 62208	FLOOR STANDING SWITCHBOARD, IP41, COMPLETELY BOLTED ASSEMBLY	www.lvt.com.tr/rapor/20-1367-R1-N1-1
		FLOOR STANDING SWITCHBOARD, IP55, COMPLETELY BOLTED ASSEMBLY	
		FLOOR STANDING SWITCHBOARD, IP66, COMPLETELY BOLTED ASSEMBLY	
		SURFACE AND FLUSH MOUNTED DISTRIBUTION BOARD, IP41, COMPLETELY BOLTED ASSEMBLY	
		SURFACE AND FLUSH MOUNTED DISTRIBUTION BOARD, IP55, COMPLETELY BOLTED ASSEMBLY	
		SURFACE AND FLUSH MOUNTED DISTRIBUTION BOARD, IP66, COMPLETELY WELDED ASSEMBLY	
GENERAL PURPOSE (GP)	IEC 60670	UNIVERSAL SWITCHBOARD FOR ALL SWITCHES WITH A LOAD CAPACITY OF 40W (SMALLEST SIZE)	www.lvt.com.tr/rapor/20-1368-R1-N4-4
		UNIVERSAL SWITCHBOARD FOR ALL SWITCHES WITH A LOAD CAPACITY OF 250W (SMALLEST SIZE)	www.lvt.com.tr/rapor/20-1368-R1-N3-3
CUSTOM APPLICATIONS (PD)		SWITCHBOARD WITH 160A MAIN SWITCH (SMALLEST SIZE)	www.lvt.com.tr/rapor/20-1368-R1-N2-2
		SWITCHBOARD WITH 160A MAIN SWITCH (LARGEST SIZE)	www.lvt.com.tr/rapor/20-1368-R1-N1-1
MOUNTED SWITCHBOARD	IEC 61439/1-2	FLOOR STANDING SWITCHBOARD, GP, 4000A, FORM 4B, 66kA, SIEMENS	www.lvt.com.tr/rapor/20-1700-R0-N1-1
MOUNTED SWITCHBOARD	IEC 61439/1-2	FLOOR STANDING SWITCHBOARD, GP, 4000A, FORM 4B, 66kA, EATON	www.lvt.com.tr/rapor/20-1372-R1-N1-1
MOUNTED SWITCHBOARD	IEC 61439/1-2	FLOOR STANDING SWITCHBOARD, GP, 4000A, FORM 4B, 66kA, FEDERAL	www.lvt.com.tr/rapor/20-1699-R1-N1-1
MOUNTED SWITCHBOARD	IEC 61439/1-2	FLOOR STANDING SWITCHBOARD, GP, 2500A, FORM 4B, 50kA, SIEMENS	www.lvt.com.tr/rapor/20-1373-R1-N1-1
MOUNTED SWITCHBOARD	IEC 61439/1-2	FLOOR STANDING SWITCHBOARD, GP, 2500A, FORM 4B, 50kA, EATON	www.lvt.com.tr/rapor/20-1702-R0-N1-1
MOUNTED SWITCHBOARD	IEC 61439/1-2	FLOOR STANDING SWITCHBOARD, GP, 2500A, FORM 4B, 50Ka, ABB	www.lvt.com.tr/rapor/19-0989-R02-N1-1
MOUNTED SWITCHBOARD	IEC 61439/1-2	FLOOR STANDING SWITCHBOARD, GP, 1600A, FORM 4B, 40kA, SIEMENS	BY AUTHENTICATION
MOUNTED SWITCHBOARD	IEC 61439/1-2	FLOOR STANDING SWITCHBOARD, GP,, 1600A, FORM 4B, 40kA, EATON	BY AUTHENTICATION
MOUNTED SWITCHBOARD	IEC 61439/1-2	FLOOR STANDING SWITCHBOARD, GP, GENERAL, 1600A, FORM 4B, 40kA, ABB	BY AUTHENTICATION
MOUNTED SWITCHBOARD	IEC 61439/1-2	FLOOR STANDING SWITCHBOARD, GP, 1600A, MAKEL	069-17-0019-61439-01/R00
MOUNTED SWITCHBOARD	IEC 61439/1-2	FLOOR STANDING SWITCHBOARD, GP, 630A, MAKEL	069-17-0019-61439-02/R00
MOUNTED SWITCHBOARD	IEC 61439/1-2 FOR CUSTOMARY APPLICATIONS	INSULATED POWER PANEL	www.lvt.com.tr/rapor/20-1371-R1-N1-1
MOUNTED SWITCHBOARD	IEC 61439/1-2 FOR CUSTOMARY APPLICATIONS	SOLAR POWER DISTRIBUTION BOARDS (0.4kV, 1kV)	WITH ACCREDITATION
SPECIAL TESTS	IEC 60068-3-3	SEISMIC TEST, FORM 4B, UNDER ENERGY OF (ZONE 4, K=2, G=1.5, D=1, α=1, ξ=5%), 3 AXIS	https://allianzteknik.com.tr/tr/rapor-sorgulama
SPECIAL TESTS	IEC 61641	ENERJISA FORM 2B INTERNAL ARC TEST, 45kA, 500ms	K.D.11-0283-R.00
TEDAŞ (Turkish Electricity Distribution Corporation)	IEC61439/1-5	50 KVA OUTDOOR TYPE LOW VOLTAGE (LV) SWITCHBOARD	https://www.lvt.com.tr/belge/115-19-0008-61439-01/R00
	IEC61439/1-5	100 KVA OUTDOOR TYPE LV SWITCHBOARD	https://www.lvt.com.tr/belge/115-19-0008-61439-02/R00
	IEC61439/1-5	160 KVA OUTDOOR TYPE LV SWITCHBOARD	https://www.lvt.com.tr/belge/115-19-0008-61439-03/R00
	IEC61439/1-5	160 KVA INDOOR TYPE LV SWITCHBOARD	https://www.lvt.com.tr/belge/115-19-0008-61439-06/R00
	IEC61439/1-5	250 KVA OUTDOOR TYPE LV SWITCHBOARD	https://www.lvt.com.tr/belge/115-19-0008-61439-04/R00
	IEC61439/1-5	250 KVA INDOOR TYPE LV SWITCHBOARD	https://www.lvt.com.tr/belge/115-19-0008-61439-07/R00
	IEC61439/1-5	400 KVA OUTDOOR TYPE LV SWITCHBOARD	https://www.lvt.com.tr/belge/115-19-0008-61439-05/R00
	IEC61439/1-5	400 KVA INDOOR TYPE LV SWITCHBOARD WITH MOULDED CASE CIRCUIT BREAKER	17-0391-R02-N01-01
			18-1199-R01-N01-01
	IEC61439/1-5	400 KVA INDOOR TYPE LV SWITCHBOARD WITH DIRECT BUSBAR	https://www.lvt.com.tr/belge/115-19-0008-61439-08/R00
	IEC61439/1-5	630 KVA INDOOR TYPE LV SWITCHBOARD	https://www.lvt.com.tr/belge/115-19-0008-61439-09/R00
	IEC61439/1-5	1000 KVA INDOOR TYPE LV SWITCHBOARD	LVT.12-0345-R00
			15-0887-R01-N01-01
	IEC61439/1-5	1250 KVA INDOOR TYPE LV SWITCHBOARD	LVT.12-0346-R00
			LVT.D.15-0888-R.01-01
			LVT.D.16-0759-R.01-01/01
	IEC61439/1-5	1600 KVA INDOOR TYPE LV SWITCHBOARD	https://www.lvt.com.tr/belge/115-19-0008-61439-12/R00
	IEC61439/1-5	TYPE-A LV FIELD DISTRIBUTION BOX	https://www.lvt.com.tr/belge/115-19-0008-61439-14/R00
	IEC61439/1-5	TYPE-B (250A) 5x160A VERTICAL FUSE SWITCH DISCONNECTOR FIELD DISTRIBUTION BOX	https://www.lvt.com.tr/belge/115-19-0008-61439-18/R00
	IEC61439/1-5	TYPE-B (400-250-250A) 5x150A VERTICAL FUSE SWITCH DISCONNECTOR FIELD DISTRIBUTION BOX	https://www.lvt.com.tr/belge/115-19-0008-61439-16/R00
	IEC61439/1-5	TYPE-B (400-400A) 2x250A-3x160A VERTICAL FUSE SWITCH DISCONNECTOR FIELD DISTRIBUTION BOX	https://www.lvt.com.tr/belge/115-19-0008-61439-15/R00
	IEC61439/1-5	TYPE-B (400-400A) 10x160A VERTICAL FUSE SWITCH DISCONNECTOR FIELD DISTRIBUTION BOX	https://www.lvt.com.tr/belge/115-19-0008-61439-17/R00
	IEC61439/1-5	CTP 250 kVA TYPE-1 BOX	16-0700-R02-N01-01
	IEC61439/1-5	CTP 250 kVA TYPE-3 BOX	16-0701-R03-N01-01
			18-0307-R00-N01-01
	IEC61439/1-5	LV METERING AUTOMATION PANEL 400A	16-1174-R02-N01-01
	IEC61439/1-5	LIGHTING SWITCHBOARD	LVT.D15-0894-R02-01D
			18-1198-R01-N01-01D
CUSTOM APPLICATIONS PROVIDED TO UTILITY ELECTRICITY DISTRIBUTION COMPANIES	CYPRUS KIBTEK	1600A INDOOR TYPE LV SWITCHBOARD	www.lvt.com.tr/rapor/19-1015-R5-N01-01D
	MEDAŞ	400 kVA (1900 + 100 x 450 x 1000)	LVT.D.16-0284-R.04-01
		400 kVA (1900 + 100 x 450 x 1300)	18-0704-R00-N01-01
			LVT.D.16-0330-R.02-01
		630 kVA (1900 + 100 x 450 x 1600)	LVT.D.16-0286-R.04-01
		METER BOX	18-0704-R00-N01-01
	SEDAŞ	100 kVA OUTDOOR TYPE LV SWITCHBOARD WITH THERMIC MAGNETIC CUTTER	LVT.D.16-0279-R.02-01D
		160 kVA OUTDOOR TYPE LV SWITCHBOARD WITH THERMIC MAGNETIC CUTTER	LVT.D.16-0280-R.02-01
		250 kVA TYPE-2 BOX	LVT.D.16-0291-R.02-01
		250 kVA OUTDOOR TYPE LV SWITCHBOARD WITH THERMIC MAGNETIC CUTTER	LVT.D.16-0281-R.02-01
		400 kVA OUTDOOR TYPE LV SWITCHBOARD WITH THERMIC MAGNETIC CUTTER	LVT.D.16-0282-R.02-01
		630 kVA OUTDOOR TYPE LV SWITCHBOARD WITH THERMIC MAGNETIC CUTTER	LVT.D.16-0283-R.02-01
	ENERJISA	1600 kVA INDOOR TYPE LV SWITCHBOARD WITH THERMIC MAGNETIC CUTTER – ENERJISA	LVT.12-0356-R.00
			LVT.12-0339-R.01
			K.D.11-0283-R.00
		TYPE-2 BOX PANEL (FIELD DISTRIBUTION BOX-1)	15-0858-R01-N01-01
			LVT.12-0358-R.00
		FIELD DISTRIBUTION BOX 3-4 BOX	15-0892-R01-N01-01

"Type Testing List" you requested from our company is presented above for your information. You can access the certificates issued by the accredited laboratory using the links provided.

You can search previous certificates that were issued before offering the laboratory link system directly from the laboratory using the "Certificate Number".

Note 1: Our company has type test certificates for both empty switchboards and assembled ones. Due to the following articles in the IEC 61 439/1 Standard, the mechanical tests must be performed in accordance with Empty Switchboard Board Standards in IEC 62208: 2011. Our company has these certificates as well.

10.2.1 General: In case an empty enclosure compliant with IEC 62208:2011 is used and the enclosure has not been modified to degrade its performance, it is not required to repeat the enclosure test up to 10.2.

Note2: Our company is also able to verify the tests in accordance with the following standards:

IEC 60890 Low voltage switchgear and control scheme,

The method of evaluating the temperature increase by extrapolation,

IEC 60865 Short-circuit currents – Calculation of effects (Thermal Strain),

IEC 61117 Method for assessing the short-circuit withstand strength of partially type-tested assemblies (PTTA)

INSTITUTIONS WE COLLABORATE WITH

TRANSPORTATION

- HIGHWAYS
- TUNNELS
- BRIDGES
- RAIL SYSTEMS
- AIRPORTS

UTILITY ELECTRICITY DISTRIBUTION COMPANIES

INDUSTRIAL PLANTS

- IRON AND STEEL PRODUCTION PLANTS
- NATURAL GAS STORAGE FACILITIES
- ORGANIZED INDUSTRIAL ZONE POWER DISTRIBUTION SYSTEMS

RENEWABLE ENERGY

- SOLAR
- BIOGAS

INSTITUTIONS WE COLLABORATE WITH

MILITARY AND DEFENSE INDUSTRY

MINISTRY OF HEALTH

MINISTRY OF JUSTICE

MINISTRY OF YOUTH AND SPORTS

- STADIUMS
- INDOOR SPORTS FACILITIES
- STUDENT DORMITORIES

REAL ESTATE

T.C. BAŞBAKANLIK TOKİ TOPLU KONUT İDARESİ BAŞKANLIĞI

PRIVATE SECTOR

- SHOPPING MALL
- HOTEL
- FACTORY

1A

Floor Standing (Empty) LV Switchboards (Pre-galvanized and Stainless Steel)

Technical Specifications		
Type Test Standard		IEC 62208
Access		Front side
Ingress protection rating		IP41 IEC 60529 IK10 Indoor Type IP55 IEC 60529 IK10 Indoor Type and Outdoor Type IP66 IEC 60529 IK10 Outdoor Type
Operating temperature	°C	-5/+40, +35 (approx. 24 h)
Internal separation		Form 1, Form 2/3/4 (a and b)
Metal surfaces		Pre-galvanized/Stainless Steel
Sheet thickness	mm	2 (Door and metal surfaces) 1.5 (Internal parts, side and rear covers)
Paint color		RAL 7032 & RAL 7035 electrostatic powder painting
Height	mm	1900+100 base 1900+200 base
Width	mm	400, 500, 600, 700, 800, 900, 1000, 1200
Depth	mm	400, 500, 600, 700, 800, 900, 1000, 1100

1B

Floor Standing LV Switchboards (Assembled) (Pre-galvanized and Stainless Steel)

Technical Specifications					
Type Test Standard		IEC 61439/1-2, IEC 62208, IEC 62262, IEC 60529			
Special Test Standard		IEC 61641, IEC 60068/3-3 , (IEC 60068/2-6 , IEC 60068/2-47 , IEC 60068/2-57)			
Verification Standard		IEC 60890, IEC 60865, IEC 61117			
Access		Front side			
Ingress protection rating		IP41 IEC 60529 IK10 Indoor Type IP55 IEC 60529 IK10 Indoor Type and Outdoor Type			
Operating frequency	Hz	50-60			
Operating temperature	°C	-5/+40, +35 (approx. 24 h)			
Internal separation		Form 1, Form 2/3/4 (a and b)			
Rated busbar current	Ie A	1600	2500	4000	
Rated busbar short-circuit current	Icw kA	40	50	66	
Rated busbar pulse short-circuit current	Ipk kA	84	105	143	
Rated insulation voltage	Ui V	1000			
Rated operating voltage	Ue V	690			
Impulse insulation voltage	Uimp kV	12 (at the altitude of 2000 m)			
Metal surfaces		Pre-galvanized/Stainless Steel			
Sheet thickness	mm	2 (Door and metal surfaces) 1.5 (Internal parts, side and rear covers)			
Paint color		RAL 7032 & RAL 7035 electrostatic powder painting			
Height	mm	1900+100 base 1900+100 base			
Width	mm	400, 500, 600, 700, 800, 900, 1000, 1200			
Depth	mm	400, 500, 600, 700, 800, 900, 1000, 1100			

1C

MCC Switchboards (Pre-galvanized) Fixed or Withdrawable Type

Technical Specifications				
Type Test Standard		IEC 61439/1-2, IEC 62208, IEC 62262, IEC 60529		
Verification Standard		IEC 60890, IEC 60865, IEC 61117		
Access		Front side		
Ingress protection rating		IP41 IEC 60529 IK10 Indoor Type IP55 IEC 60529 IK10 Indoor Type and Outdoor Type		
Operating frequency	Hz	50-60		
Operating temperature	°C	-5/+40, +35 (approx. 24 h)		
Internal separation		Form 1, Form 2/3/4 (a and b)		
Rated busbar current	Ie A	630	1000	1600
Rated busbar short-circuit current	Icw kA	16	25	40
Rated busbar pulse short-circuit current	Ipk kA	32	52,5	84
Rated insulation voltage	Ui V	1000		
Rated operating voltage	Ue V	690		
Impulse insulation voltage	Uimp kV	12 (at the altitude of 2000 m)		
Metal surfaces		Pre-galvanized		
Sheet thickness	mm	2 (Door and metal surfaces) 1.5 (Internal parts, side and rear covers)		
Paint color		RAL 7032 & RAL 7035 electrostatic powder painting		
Height	mm	1900+100 base 1900+200 base		
Width (For withdrawable type)	mm	600+400		
Width (For fixed type)	mm	500, 600, 700, 800		
Depth	mm	600, 700, 800, 900, 1000		

1D

eVArQ Compensation Switchboards Fixed, Withdrawable or Socket Type Compensation Switchboards, Hybrid System

Technical Specifications			
Type Test Standard		IEC 61439/1-2, IEC 62208, IEC 62262, IEC 60529	
Access		Front side	
Ingress protection rating		IP41 IEC 60529 IK10 Indoor Type IP55 IEC 60529 IK10 Indoor Type and Outdoor Type	
Operating frequency	Hz	50-60	
Operating temperature	°C	-5/+40, +35 (approx. 24 h)	
Internal separation		Form 1, Form 2	
Model type		Fixed, withdrawable or socket type	
Dropper busbar current (For withdrawable type)	Ie A	400	
Module power (For withdrawable type)	kVAr	240 (400 VAC)	
Withdrawer power	kVAr	5-10-20-40 (400 VAC)	
Rated insulation voltage	Ui V	1000	
Rated operating voltage	Ue V	690	
Rated pulse Insulation voltage	Uimp kV	12 (at the altitude of 2000 m)	
Metal surfaces		Pre-galvanized	
Sheet thickness	mm	2 (Door and metal surfaces) 1.5 (Internal parts, side and rear covers)	
Paint color		RAL 7032 & RAL 7035 electrostatic powder painting	
Height	mm	1900+100 base 1900+200 base	
		Withdrawable Type	Fixed Type
Width	mm	500, 600	400, 600, 800, 1000
Depth	mm	700	600, 800

Advantages of Our e-VArQ Fixed Withdrawable or Socket Type Compensation Switchboards

- The conformity of the switchboard (400 VAC) with 6x40kVA withdrawers to the EC 61439-1/2 standard has been verified by type testing.
- Problems experienced in the project design stage have been resolved thanks to e-VArQ.
- Thanks to the universal feature, the switchboard can be easily applied to any single line diagram.
- Thanks to the electrical and mechanical modularity of our switchboards, mounting problems have been solved.
- During the assembly/disassembly of the withdrawers in the switchboard, withdrawers are interchangeable with each other. (Electrical modularity)
- The switchboard can be disassembled and assembled in the field without disturbing the routine tests performed at the factory. In this way, it can be easily transported to the installation site.
- It can be detached in the field and each withdrawer can be used in a different place.
- It can be added to the existing facilities.
- Active Harmonic Filter can be placed before the switchboards in our hybrid model.
- Thanks to the high-power radial fan system, the ventilation problems due to the place of use of the switchboards are eliminated.
- Mechanical locking mechanism takes precautions against the wrong actions in our switchboards.
- The switchboard allows the operation technicians to easily intervene in the system.
- "The switchboard can be stored empty or assembled. In case it is stored empty and electrical materials are available, the switchboard can be assembled on the same day. (In this way we can contribute particularly to our colleagues who manufacture switchboards but do not have sufficient production capacity.)

eVArQs Dynamic Compensation Switchboards for Low-Power Facilities

1D Dynamic

Technical Specifications

Type Test Standard		IEC 61439/1-2, IEC 62208, IEC 62262, IEC 60529		
Access		Front side		
Ingress protection rating		IP41 IEC 60529 IK10 Indoor Type		
Operating frequency	Hz	50-60		
Operating temperature	°C	-5/+40, +35 (approx. 24 h)		
Model type		Fixed type		
Power	kVAr	30	50	100
Shunt power	kVAr	3Ad 1,5 (230VAC)	3Ad 2,5 (230 VAC)	3Ad 5 (230 VAC)
Condenser power	kVAr	3Ad 1,5 (230 VAC) 1Ad 5 (400 VAC) 2Ad 10 (400 VAC)	3Ad 2,5 (230 VAC) 1Ad 7,5 (400 VAC) 1Ad 15 (400 VAC) 1Ad 20 (400 VAC)	3Ad 5 (230 VAC) 1Ad 10 (400 VAC) 1Ad 15 (400 VAC) 2Ad 30 (400 VAC)
Rated insulation voltage	Ui V	1000		
Rated operating voltage	Ue V	690		
Impulse insulation voltage	Uimp kV	12 (at the altitude of 2000 m)		
Metal surfaces		Pre-galvanized		
Sheet thickness	mm	1.5		
Paint color		RAL 7032 & RAL 7035 electrostatic powder painting		
		30 kVAr	50 kVAr	100 kVAr
Height	mm	790	790	890
Width	mm	400	400	500
Depth	mm	705	705	850

Advantages of Our e-VArQs Dynamic Compensation Switchboards

- e-VArQs Dynamic Compensation Switchboard is a new generation compensation switchboard.
- Conventional compensation switchboards respond to the system by using the capacitor and reactor taps in groups.
- In addition, since the conventional compensation switchboards have a predetermined power, which is limited, they cannot provide the complete reactive power required by the system.
- They try to reach the closest possible values.
- e-VArQs dynamic compensation switchboards, similar to the conventional compensation switchboards, have a dynamic compensation system that changes the power of the inductive load driver and shunt reactor separately for each phase and completely meets the requirements of the system, as well as the contractor-switched capacitor groups.
- Another advantage of e-VArQs dynamic compensation switchboards over the conventional compensation switchboards is that they can respond to the requirements of the system very quickly (standard <200ms, optional <40ms)
- It fully responds to the capacitive compensation that may occur due to the use of energy-saving lighting, uninterruptible power supplies, inverter air conditioners, and chillers, etc.
- Since the rapidly changing loads are compensated by the inductive load driver, contactor-switching is performed occasionally; thus, the service life of the contactor is extended.
- The operation is easily compensated for quickly incoming and outgoing loads.
- The assembly and commissioning labor is less since all settings are made in the factory environment.
- It conveniently works even in low-power facilities or high-power facilities with a high current transformer ratio since the detection current is 3 mA.
- The tap values are constantly updated by performing tap tests automatically.
- Automatic detection and correction of the changes in the current transformer connections.
- It reduces the maintenance costs since compensation extends the maintenance period.

1E

eVArQs Dynamic Compensation Switchboards for Low-Power Facilities

Technical Specifications		
Type Test Standard		IEC 61439-1/2
Access		Front side
Ingress protection rating		IP41 IEC 50529 IK10 Indoor Type
Operating frequency	Hz	50-60
Operating temperature	°C	0-50
Rated busbar current	Ie A	Up to 50 A
Rated operating voltage	Ue V	690
Impulse insulation voltage	Uimp kV	8 (at the altitude of 2000 m)
Output fiber count		6, 12, 18, 24
Metal surfaces		Pre-galvanized
Sheet thickness	mm	2 (Door and metal surfaces) 1.5 (Internal parts, side and rear covers)
Paint color		RAL 7032 & RAL 7035 electrostatic powder painting
Height	mm	1600+100 base 1600+200 base
Width	mm	500
Depth	mm	500

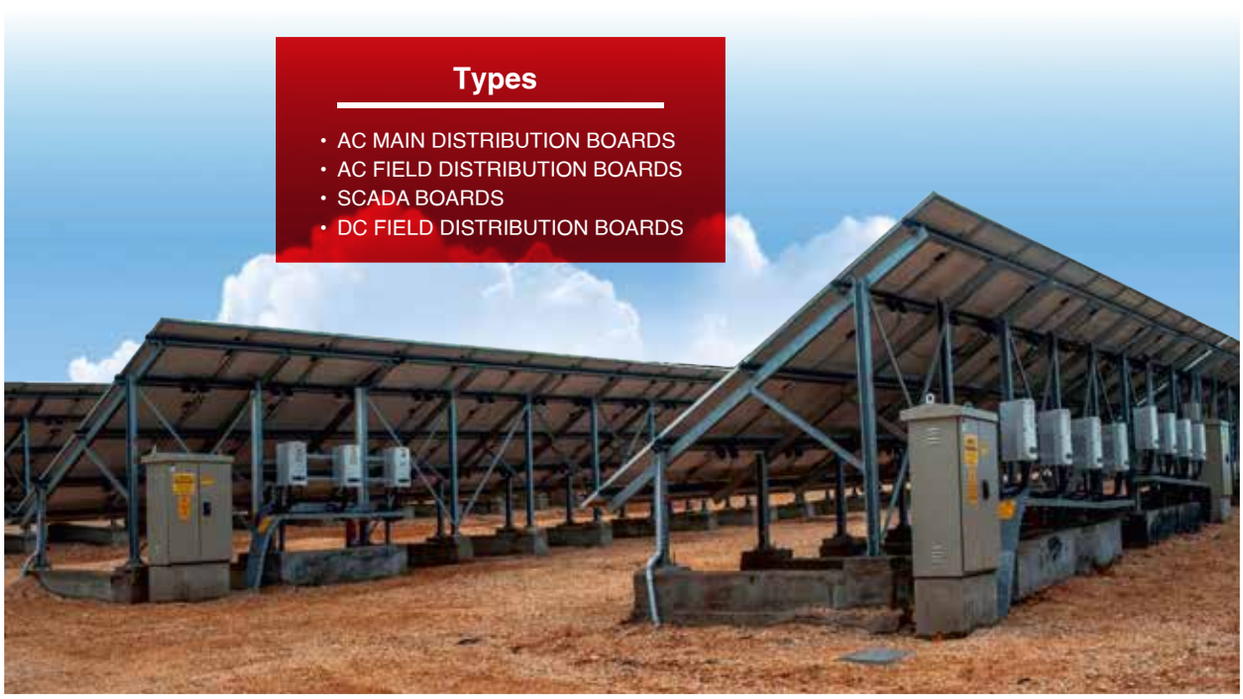
1F

Solar Power Distribution Boards

Technical Specifications		
Type Test Standard		IEC 51439/1-2, IEC 62208, IEC 52262, IEC 60529
Verification Standard		IEC 608890, IEC 60865, IEC 61117
Access		Front side
Ingress protection rating		IP41 IEC 60529 IK10 Indoor Type IP55 IEC 60529 IK10 Indoor Type and Outdoor Type
Operating frequency	Hz	50-60
Operating temperature	°C	-5/+40, +35 (approx. 24 h)
Internal separation		Form 1, Form 2/3/4 (a and b)
Rated busbar current	Ie A	Optional
Rated insulation voltage	Ui V	1000
Rated operating voltage	Ue V	690
Impulse insulation voltage	Uimp kV	12 (at the altitude of 2000 m)
Metal surfaces		Pre-galvanized
Sheet thickness	mm	2 (Door and metal surfaces) 1.5 (Internal parts, side and rear covers)
Paint color		RAL 7032 & RAL 7035 electrostatic powder painting
Height	mm	According to the project requirements.
Width	mm	According to the project requirements.
Depth	mm	According to the project requirements.

Types

- AC MAIN DISTRIBUTION BOARDS
- AC FIELD DISTRIBUTION BOARDS
- SCADA BOARDS
- DC FIELD DISTRIBUTION BOARDS



2A

Surface and Flush Mounted LV Distribution Boards (Empty)

Technical Specifications		
Type Test Standard		IEC 62208
Access		Front side
Ingress protection rating		IP41 IEC 60529 IK10 Indoor Type IP41 IEC 60529 IK10 Indoor Type IP55 IEC 60529 IK10 Indoor Type and Outdoor Type IP66 IEC 60529 IK10 Outdoor Type
Operating frequency	Hz	50-60
Operating temperature	°C	-5/+40, +35 (approx. 24 h)
Rated busbar current	Ie A	up to 160 A
Metal surfaces		Pre-galvanized/ Stainless Steel
Sheet thickness	mm	1-1.5-2
Paint color		RAL 7032 & RAL 7035 electrostatic powder painting
Height	mm	400, 600, 800, 1000, 1200
Width	mm	300, 400, 500, 600, 700
Depth	mm	125, 150, 200, 250, 300

IP2X

IP41

IP66

IP55

2B

Surface and Flush Mounted LV Distribution Boards (Assembled)

Technical Specifications

Type Test Standard		IEC 60670, IEC 62208
Access		Front side
Ingress protection rating		IP41 IEC 60529 IK10 Indoor Type IP41 IEC 60529 IK10 Indoor Type IP55 IEC 60529 IK10 Indoor Type and Outdoor Type IP66 IEC 60529 IK10 Outdoor Type IP66 IEC 60529 IK10 Outdoor Type
Operating frequency	Hz	50-60
Operating temperature	°C	-5/+40, +35 (approx. 24 h)
Rated busbar current	Ie A	up to 160 A
Rated insulation voltage	Ui V	1000
Rated operating voltage	Ue V	690
Impulse insulation voltage	Uimp kV	8 (at the altitude of 2000 m)
Metal surfaces		Pre-galvanized/ Stainless Steel
Sheet thickness	mm	1-1.5-2
Paint color		RAL 7032 & RAL 7035 electrostatic powder painting
Height	mm	400, 600, 800, 1000, 1200
Width	mm	300, 400, 500, 600, 700
Depth	mm	125, 150, 200, 250, 300

3

EATON xEnergy LV Switchboard Systems Partnership

Technical Specifications		
Type Test Standard		IEC/EN 61439/1-2
Access		Front side
Ingress protection rating		IP31 IEC/EN 60529 IK10 Internal Type IP42 IEC/EN 60529 IK10 Internal Type IP55 IEC/EN 60529 IK10 Internal Type
Operating frequency	Hz	
Operating temperature	°C	-5/+40, +35 (approx. 24 h)
Internal separation		Form 1, Form 2/3/4 (a and b)
Rated busbar current	Ie A	up to 7100
Rated busbar short-circuit current	Idw kA	100 (1s)
Rated busbar pulse short-circuit current	Ipk kA	220
Rated insulation voltage	Ui V	1000 VAC / 1200 VDC
Rated operating voltage	Ue V	690
Impulse insulation voltage	Uimp kV	12 (at the altitude of 2000 m)
Metal surfaces		Pre-galvanized/ Stainless Steel
Sheet thickness	mm	2 (Door and metal surfaces) 1.5 (Internal parts, side and rear covers)
Paint color		RAL 7035 electrostatic powder painting
Height	mm	2000+100/200 base
Width	mm	425, 600, 800, 850, 1000, 1100, 1200
Depth	mm	600, 800, 1000

Switchboard Types

XP	Power Section	Power Section – For Input, Output and Coupling circuit breakers
XF	Outgoing Section - Fixed design	Distribution Section – For fixed type output circuit breakers
XR	Outgoing Section – Removable design	Distribution Section – For on-load removable type output circuit breakers
XW	Outgoing Section – Withdrawable design	Distribution Section – For withdrawable type feeding and MCC starting system
XG	Empty Section for General equipment	For assembly of general devices and the compensation system

Powering Business Worldwide

INDOOR TYPE PENDA SWITCHBOARDS

4A

Place of use	Indoor Type									
Altitude	1000 m 2000 m									
Maximum ambient temperature (°C)	40 °C									
Average ambient temperature (°C) for the last 24 hours	35 °C									
Minimum ambient temperature (°C)	-5 °C									
Pollution degree rating	Pollution Degree 2									
Relative humidity	50% at +40°C 90% at +20°C									
Horizontal peak ground acceleration	0,5g									
Vertical peak ground acceleration	0,4g									
System grounding	Directly grounded									
Rated frequency	50 Hz									
Rated operating voltage	231/400 V 3 (three)-phase 4 (four)-wire system									
Rated impulse withstand voltage, kV (Uimp)	8 (at the altitude of 2000 m)									
Transformer power (kVA)	50	100	160	250	400	630	800	1000	1250	1600
Main busbar rated current (A)	72	145	230	360	580	910	1155	1445	1800	2312
Input Unit rated current (A)	72	145	230	360	580	910	1155	1445	1800	2312
Effective Value (kA)	2	4	6	9	15	23	19	24	30	38
Peak Value (kA)	3	6	10	15	30	48	38	50	63	80
Cos θ	0,7	0,7	0,5	0,5	0,3	0,25	0,3	0,25	0,25	0,25
Enclosure type	Sheet metal									
Exterior design	Cabinet Type									
Mounting method	Pedestal Type									
Ingress protection rating	Indoor Type IP 2X									
Inlet connection side	Top side									
Outlet connection side	From bottom									

4B

OUTDOOR TYPE PENDA SWITCHBOARDS

Place of use	Outdoor Type				
Altitude	1000 m , 2000 m				
Maximum ambient temperature (°C)	40 °C				
Average ambient temperature (°C) for the last 24 hours	35 °C				
Minimum ambient temperature (°C)	-25 °C				
Pollution degree rating	Pollution Degree 3				
Relative humidity	100% at +25°C				
Horizontal peak ground acceleration	0,5g				
Vertical peak ground acceleration	0,4g				
System grounding	Directly grounded				
Rated frequency	50 Hz				
Rated operating voltage	231/400 V 3 (three)-phase 4 (four)-wire system				
Rated impulse withstand voltage, kV (Uimp)	8 (at the altitude of 2000 m)				
Transformer power (kVA)	50	100	160	250	400
Rated busbar current (A)	72	145	230	360	580
Input Unit rated current (A)	72	145	230	360	580
Effective Value (kA)	2	4	6	9	15
Peak Value (kA)	3	6	10	15	30
Cos θ	0,7	0,7	0,5	0,5	0,3
Enclosure type	Sheet				
Exterior design	Cabinet Type				
Mounting method	Pedestal Type, Pole Type				
Ingress protection rating	IP 54 (When mounted on its pedestal)				
Inlet connection side (for Pedestal Type)	Bottom side				
Inlet connection side (for Pole Type)	Top side				
Outlet connection side (for Pedestal Type)	Bottom side				
Outlet connection side (for Pole Type)	Top side or bottom side				

4C-D

PENDA TYPE-A FIELD DISTRIBUTION BOXES
PENDA TYPE-B FIELD DISTRIBUTION BOXES

Place of use	Outdoor Type	
Altitude	2000 m	
Maximum ambient temperature (°C)	(+)40 °C	(+)50 °C
Average ambient temperature (°C) for the last 24 hours	(+)35 °C	(+)45 °C
Minimum ambient temperature (°C)	-25 °C	-25 °C
Pollution degree rating	Pollution Degree 3	
Maximum solar radiation	1000 Wm2	
Relative humidity	100% at +25°C	
Icing	Class 10, 10mm	
Horizontal peak ground acceleration	0,5g	
Vertical peak ground acceleration	0,4g	
System grounding	Directly grounded	
Operating (system) frequency	50 Hz	
Operating (system) voltage	231/400 VAC 3 (three)-phase 4 (four)-wire system	
Insulation voltage	690 V	
Rated impulse withstand voltage, kV (Uimp)	8 (at the altitude of 2000 m)	
Input unit rated current (A)	250; 400	
Ring output unit current (A) (Output to other FDB)	250; 400	
Maximum short circuit current (kA)	38	
Enclosure type	Sheet, Glass Fiber Reinforced Polyester	
Exterior design	Cabinet Type	
Mounting method	Mounting on pedestal	
Ingress protection rating	IP 44 (when mounted on its pedestal)	

PENDA TYPE LV METERING AUTOMATION PANEL FIELD DISTRIBUTION BOXES

4E

Place of use	Outdoor Type
Altitude	2000 m
Maximum ambient temperature (°C)	+40 °C /+50 °C
Average ambient temperature (°C) for the last 24 hours	35 °C
Minimum ambient temperature (°C)	- 25 °C - 40 °C
Pollution degree rating	Pollution Degree 3
Maximum solar radiation	1000 W/m^2
Relative humidity	+ 25°C'da %100
Icing	Class 10, 10mm
Horizontal peak ground acceleration	0,5g
Vertical peak ground acceleration	0,4g
System grounding	Directly grounded
Operating (system) frequency	50 Hz
Operating (system) voltage	231/400 VAC 3 (three)-phase 4 (four)-wire system
Insulation voltage	690 V - active
Rated impulse withstand voltage, kV (Uimp)	8 (at the altitude of 2000 m)
Rated busbar current (A)	400
Input Unit rated current (A)	250-400
Ring output unit current (Output to the other LVMA) (A)	250-400
Supply output units current (A)	25-100
Maximum expected short circuit current in LV meter automation panel input	25 kA - active
Enclosure type	Sheet, Glass Fiber Reinforced Polyester
Exterior design	Cabinet Type
Mounting method	Pedestal Type or Pole Type
Ingress protection rating	IP54

PENDA TYPE LIGHTING SWITCHBOARDS

4F

Rated busbar current (A)	80
Input unit rated current (A)	80
Maximum short circuit current (kA)	38
Peak Value (kA)	80
Cos θ	0,25
Enclosure type	Sheet, Glass Fiber Reinforced Polyester
Exterior design	Cabinet Type
Mounting method	Pedestal Type
Ingress protection rating	IP54 (When mounted on its pedestal)

5A

1 kV Steel Sheet Metal Substations

Test Standard	IEC 62208
Place of use	Outdoor Type
Intended use	It is used to prevent voltage drops in long-distance road lighting in urban roads, motorways and highways. Usually, transformers with a power of 40 kVA, 50 kVA, or 63 kVA is preferred. The substation has an input voltage of 1 kV and an output voltage of 0.4 kV. A 1 kV fuse group or 1 kV Thermal Magnetic Switch is used at the input. The fuses and switches in accordance with the numbers and current values specified in the project are used at the output.
Altitude	2000 m
Maximum ambient temperature (°C)	40°C
Average ambient temperature (°C) for the last 24 hours	35 °C
Minimum ambient temperature (°C)	-25°C
Maximum solar radiance	1000 Wm2
Pollution degree rating	Pollution Degree 3
Maximum relative humidity (%)	95
Average relative humidity for the last 24 hours (%)	80
Minimum relative humidity (%)	60
Horizontal peak ground acceleration	0.5 g
Vertical peak ground acceleration	0.4 g
System grounding	According to the technical specifications
Rated frequency	50-60 Hz
Enclosure type	Paint on 2 mm Pre-galvanized Sheet or Hot-Dip Galvanization on 3 mm HRP Sheet
Exterior design	Cabinet Type
Mounting method	Pedestal Type
Ingress protection rating	IP 54D (when mounted on its pedestal), IK10, Enclosure Class 10
Roof mechanical strength load	850 N/m2
Inlet connection side	Bottom side
Outlet connection side	Bottom side

5B

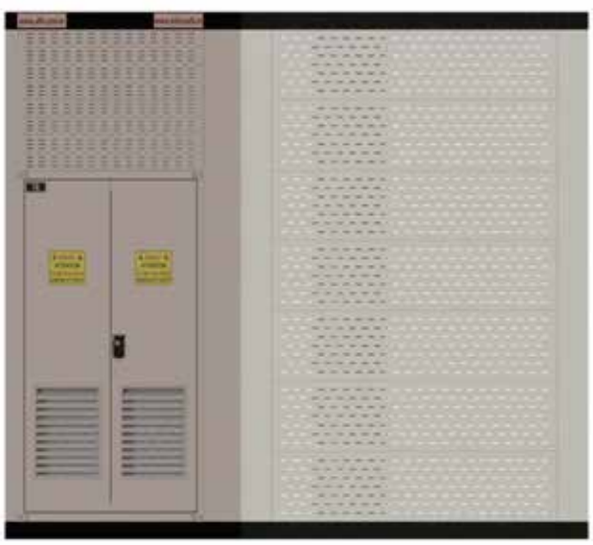
11kV-24kV-36kV Steel Sheet Metal Substations

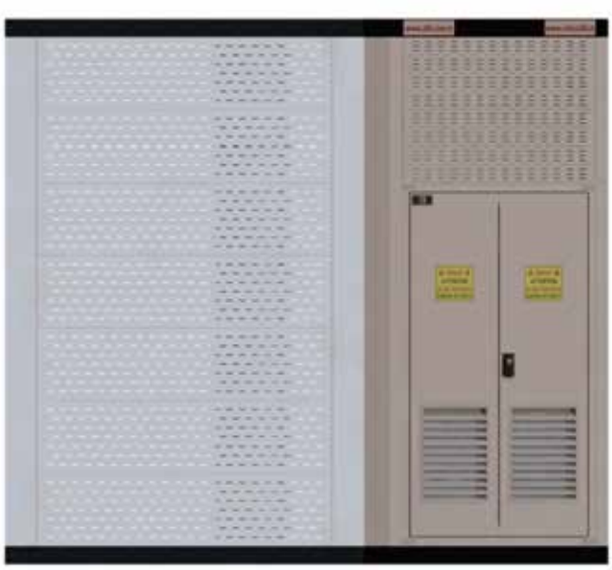
Test Standard	IEC 62208
Place of use	Outdoor Type
Intended use	Enclosure for substations with RMU or modular cells with metal enclosure
Altitude	2000 m
Maximum ambient temperature (°C)	40°C
Average ambient temperature (°C) for the last 24 hours	35°C
Minimum ambient temperature (°C)	-25°C
Maximum solar radiance	1000 Wm2
Pollution degree rating	Pollution Degree 3
Maximum relative humidity (%)	95
Average relative humidity for the last 24 hours (%)	80
Minimum relative humidity (%)	60
Horizontal peak ground acceleration	0.5 g
Vertical peak ground acceleration	0.4 g
System grounding	According to the technical specifications
Rated frequency	50-60 Hz
Enclosure type	Paint on 2 mm Pre-galvanized Sheet or Hot-Dip Galvanization on 3 mm HRP Sheet
Exterior design	Cabinet Type
Mounting method	Pedestal Type
Ingress protection rating	IP 54D (when mounted on its pedestal), IK10, Enclosure Class 10
Roof mechanical strength load	850 N/m2
Inlet connection side	Bottom side
Outlet connection side	Bottom side

5C

Special Type Steel Sheet Cabinets (Dry-Type Transformer Cabinet, etc.) Sheet Metal Parts Manufacturing

Enclosure Type	Paint on 2mm Pre-galvanized Sheet Metal
Intended Use	Transformer enclosure





HIGHLIGHTED
REFERENCES

ÇANAKKALE 1915 BRIDGE

0.4 kV LV Distribution and Compensation Switchboards, 1 kV LV Distribution Boards, 1 kV Steel Sheet Metal Transformer Substations were produced by AFB Energy.

Osmangazi Bridge

0.4 kV LV Distribution and Compensation Switchboards, 1 kV LV Distribution Boards, 1 kV Steel Sheet Metal Transformer Substations were produced by AFB Energy.

Yavuz Sultan Selim Bridge

0.4 kV LV Distribution and Compensation Switchboards, 1 kV LV Distribution Boards, 1 kV Steel Sheet Metal Transformer Substations were produced by AFB Energy. 36kV Modular Cell and Concrete Kiosks were supplied by AFB Energy.

Northern Marmara Highway

KUZEY MARMARA OTOYOLU

0.4 kV LV Distribution and Compensation Switchboards, 1 kV LV Distribution Boards, 1 kV Steel Sheet Metal Transformer Substations were produced by AFB Energy.

Ankara-Niğde Highway

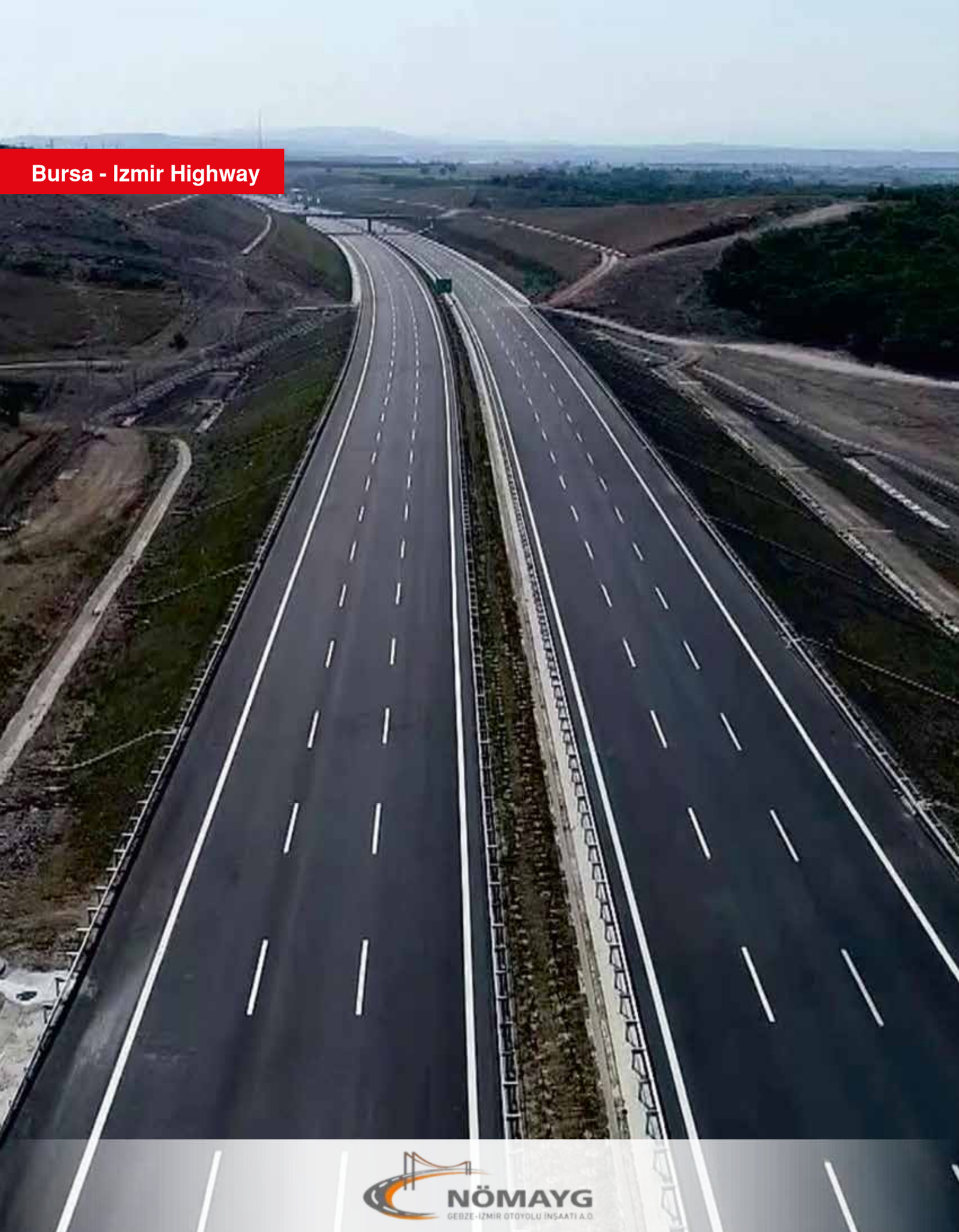
ERG OTOYOL YATIRIM ve İŞLETME A.Ş

0.4 kV LV Distribution and Compensation Switchboards, 1 kV LV Distribution Boards, 1 kV Steel Sheet Metal Transformer Substations were produced by AFB Energy.

İzmir Menemen Çandarlı Highway

ASTALDI İÇTAŞ İNŞAAT kalyon

0.4 kV LV Distribution and Compensation Switchboards, 1 kV LV Distribution Boards, 1 kV Steel Sheet Metal Transformer Substations were produced by AFB Energy.



0.4 kV LV Distribution and Compensation Switchboards, 1 kV LV Distribution Boards, 1 kV Steel Sheet Metal Transformer Substations were produced by AFB Energy.

Northern Iraq
Selahattin Tunnel

İLCİ HOLDİNG

All LV Switchboards were produced by AFB Energy.

Lake Tuz Underground Natural Gas Storage Expansion Project

BOTAŞ

0.4 kV Withdrawable Type MCC Switchboards and Compensation Switchboards were produced by AFB Energy.

Ministry of National Defense Military Academy Battalion Building

All LV Switchboards were produced by AFB Energy.

YATA Building

All LV Switchboards were produced by AFB Energy.

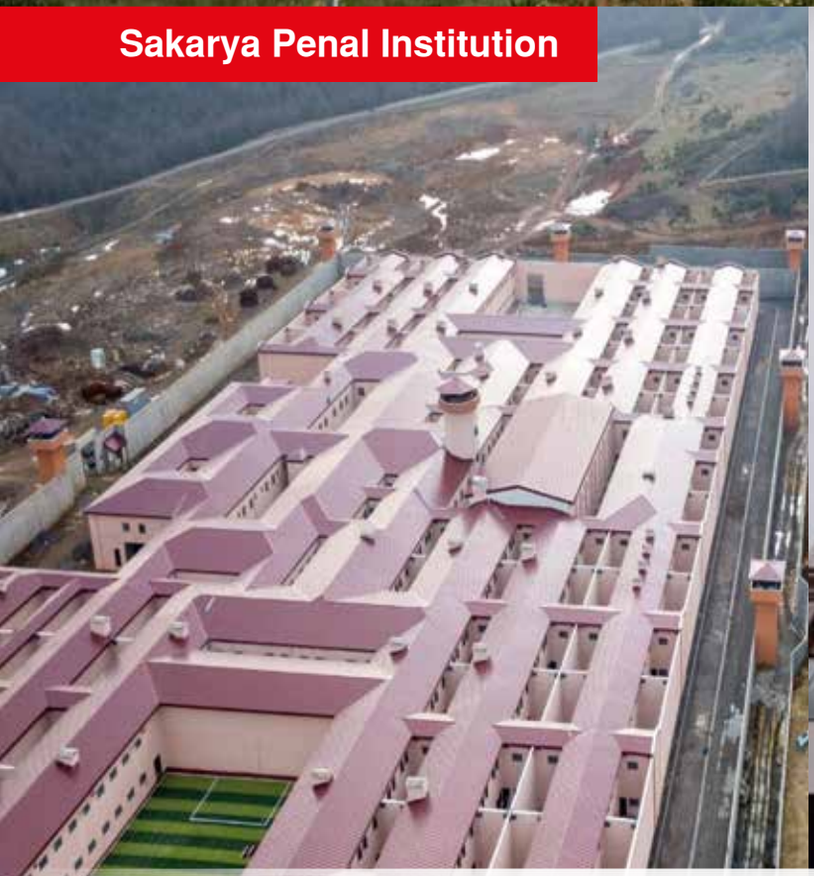
JEMUS 3, JEMUS 4, EHHUS, ŞAHMUS, GENKUR Projects

aselsan

0.4 kV LV Switchboard, Board, and Rack Cabinets were produced by AFB Energy.

Bursa Regional Court of Justice

Sakarya Penal Institution



Supreme Election Board

LV Switchboards of many Penal Institutions and Regional Courts of Justice Buildings were produced by AFB Energy.

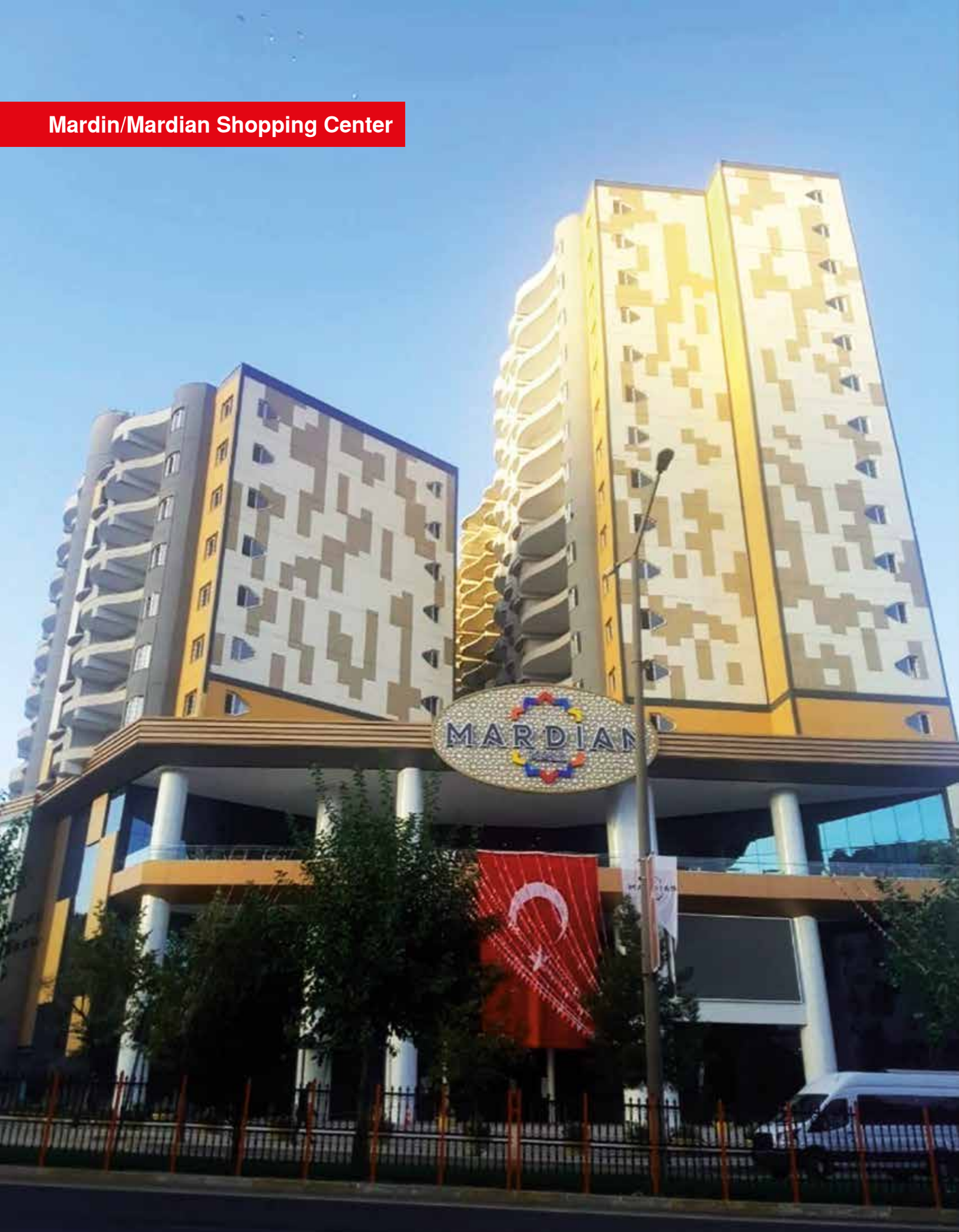
Atatürk's Mausoleum

Main LV Switchboards in the Power Center and the Power Generator in the Substation were pro duced by AFB Energy.

Batman/Petrolcity Shopping Center

All LV Switchboards were produced by AFB Energy.

Mardin/Mardian Shopping Center



All LV Switchboards were produced by AFB Energy.

Necmettin Erbakan University
Meram Faculty of Medicine Hospital

All LV Switchboards were produced by AFB Energy.

TED AHLATLIBEL CAMPUS

All LV Switchboards were produced by AFB Energy.

TURKISH-GERMAN UNIVERSITY

TÜRK-ALMAN ÜNİVERSİTESİ
TÜRKISCH-DEUTSCHE UNIVERSITÄT

All LV Switchboards were produced by AFB Energy.

HIGHLIGHTED REFERENCES

HIGHWAY – TUNNEL – BRIDGE – RAILWAY PROJECTS

- BOLU GEREDE, MEDIAN STRIP LIGHTING 1kV STEEL SHEET METAL KIOSK AND SWITCHBOARDS, HIGHWAYS
- HASDAL SERVICE BUILDING
- YERKÖY-SİVAS HIGH-SPEED TRAIN PROJECT SUPERSTRUCTURE AND ELECTROMECHANICAL CONSTRUCTION WORKS

MILITARY – DEFENSE INDUSTRY PROJECTS

- NAVAL FORCES COMMAND
- COAST GUARD COMMAND MAIN SWITCHBOARDS
- LAND FORCES ARMORED UNITS SCHOOL AND TRAINING DIVISION COMMAND
- TAI B250 ENGINEERING BUILDING
- TAI METU GEAR RESEARCH CENTER
- CYBER DEFENSE COMMAND MAIN SATELLITE CONTROL CENTER BUILDING
- LAND FORCES COMMAND ADAPAZARI TANK PALLET FACTORY
- 1ST MECHANIZED BRIGADE COMMAND
- HEAT EXCHANGE STATIONS OF BALIKESIR MAINTENANCE SCHOOL AND TRAINING CENTER COMMAND BUILDINGS
- SAMSUN KAVAK DISTRICT GENDARMARIE COMMAND SERVICE BUILDING
- HAKKARI ÇUKURCA FORTIFIED OUTPOST (KALEKOL) FOR 100 PEOPLE
- SIRNAK PROVINCE CIZRE DISTRICT 215TH BLOCK 3RD PLOT FORTIFIED OUTPOST FOR 25 PEOPLE;
- SIRNAK PROVINCE, CIZRE DISTRICT, 787TH BLOCK, 9-25TH PLOT FORTIFIED OUTPOST FOR 75 PEOPLE
- SIRNAK PROVINCE CIZRE DISTRICT 1138TH PLOT FORTIFIED OUTPOST FOR 25 PEOPLE
- FENERBAHCE OFFICER'S CLUB PROJECT

HIGHLIGHTED REFERENCES

MINISTRY OF HEALTH PROJECTS

ADIYAMAN STATE HOSPITAL (400 BEDS)
ANKARA TRAINING AND RESEARCH HOSPITAL POWER AND VOLTAGE INCREASE PROJECT
ANKARA UNIVERSITY FACULTY OF MEDICINE MORPHOLOGY SERVICE
ARTVIN SAVŞAT STATE HOSPITAL (40 BEDS)
BALIKESIR UNIVERSITY TRAINING AND RESEARCH HOSPITAL (300 BEDS)
BATMAN 300-BED GYNECOLOGY AND OBSTETRICS HOSPITAL
BURSA GYNECOLOGY AND OBSTETRICS HOSPITAL
BURSA SEVKET YILMAZ HOSPITAL ÇUMRA STATE HOSPITAL (150 BEDS)
DIYARBAKIR SILVAN STATE HOSPITAL (150 BEDS)
ELMADAĞ STATE HOSPITAL (150 BEDS)
ESKISEHIR OSMANGAZI INTENSIVE CARE HOSPITAL
IĞDIR STATE HOSPITAL (250 BEDS)
ISTANBUL HALKALI STATE HOSPITAL (544 BEDS)-PARTIAL KILIS STATE HOSPITAL (150 BEDS)
LIBYA-ZLITEN TRAINING HOSPITAL
MALATYA 300 BEDS GYNECOLOGY AND CHILDREN'S HOSPITAL
MALATYA HEKİMHAN HOSPITAL (30 BEDS)
MARDIN STATE HOSPITAL (300 BEDS)
SİİRT STATE HOSPITAL (300 BEDS)
SİVAS YILDIZELİ STATE HOSPITAL (75 BEDS)
SOCIAL SERVICES AND CHILD PROTECTION AGENCY SARAYKÖY ACCESSIBLE LIFE CENTER
TOKAT ORAL AND DENTAL HEALTH CENTER (50 BEDS)
TOKAT ZİLE STATE HOSPITAL (100 BEDS)
TOYOTA HOSPITAL
CEMATEM & AMATEM TRABZON STATE HOSPITAL (200 BEDS)
YOZGAT ELDERLY CARE AND REHABILITATION CENTER
KONYA BEYSEHIR STATE HOSPITAL (150 BEDS)
ADANA SEYHAN HOSPITAL (150 BEDS)

HIGHLIGHTED REFERENCES

MINISTRY OF HEALTH INSULATED POWER SYSTEM (IPS) SWITCHBOARDS

GIRESUN KALE HOSPITAL (350 BEDS)
BEYKENT UNIVERSITY AVALON HOSPITAL PROJECT
UŞAK HOSPITAL (200 BEDS)
KYRGYZSTAN STATE HOSPITAL
İVRİNDİ HOSPITAL (25 BEDS)
IZMIR ALFA MEDICAL CENTER
AKDENIZ UNIVERSITY FACULTY OF MEDICINE
KONYA CITY HOSPITAL
TOKAT MEDICALPARK HOSPITAL
IBNI SINA HOSPITAL
DIYARBAKIR PRIVATE GENESIS HOSPITAL
NEVSEHIR DR. ŞEVKİ ATASAGUN STATE HOSPITAL
VAN ÇATAK STATE HOSPITAL (75 BEDS)
MALATYA HOSPITAL (300 BEDS)
ORDU AKKUŞ HOSPITAL (25 BEDS)
SAKARYA FERIZLI STATE HOSPITAL (20 BEDS)
DIYARBAKIR PRIVATE BAGCILAR HOSPITAL
ÇORUM BAYAT STATE HOSPITAL (30 BEDS)
TEKIRDAG IRMET HOSPITAL
SANLIURFA CEYLANPINAR STATE HOSPITAL (150 BEDS) IPS SWITCHBOARDS
CONTAINER INTENSIVE CARE UNIT PROJECTS SAKARYA STATE HOSPITAL (200 BEDS)
TBİLİSİ AMERICAN HOSPITAL
YILDIRIM BAYAZIT UNIVERSITY STATE HOSPITAL
BİLECİK STATE HOSPITAL (250 BEDS)
ÇANAKKALE ÇAN STATE HOSPITAL (75 BEDS)
SANLIURFA METROLIFE HOSPITAL
ELAZIG MEDILINE HOSPITAL
HATAY PRIVATE DEFNE HOSPITAL
IBNI SINA HOSPITAL
TATVAN STATE HOSPITAL
KONYA CITY HOSPITAL
BITLIS AHLAT STATE HOSPITAL
TOKAT STATE HOSPITAL
SAKARYA TOYOTASA EMERGENCY AID HOSPITAL
ANTALYA SIDE PRIVATE ANADOLU HOSPITAL
ARTVIN YUSUFELI STATE HOSPITAL (50 BEDS)
ALBANIA PANDEMIC HOSPITAL
HATAY SAMANDAĞI HOSPITAL (75 BEDS) IPS SWITCHBOARDS
SİİRT TRAINING AND RESEARCH HOSPITAL

HIGHLIGHTED REFERENCES

MINISTRY OF HEALTH MECHANICAL AUTOMATION SYSTEMS PROJECTS

KONYA KARAPINAR STATE HOSPITAL (50 BEDS)
İSTANBUL GAZİOSMANPAŞA HOSPITAL (300 BEDS)
SAMSUN MERKEZ HOSPITAL (400 BEDS)
HALKALI KANUNI SULTAN SULEYMAN HOSPITAL (800 BEDS)
MALATYA MERKEZ HOSPITAL (800 BEDS)
SINOP HEALTH CAMPUS
KONYA BEYSEHIR STATE HOSPITAL (150 BEDS)

MINISTRY OF JUSTICE PROJECTS

BARTIN PRISON EDREMIT COURT PALACE
KIRSEHIR PENAL INSTITUTION
BALIKESIR DURSUNBEY COURT PALACE
KONYA EREĞLİ PENAL INSTITUTION (PARTIAL)
EREĞLİ PENAL INSTITUTION
KAHRAMANMARAS PENAL INSTITUTION
ESKISEHIR MILITARY COURT BUILDING
ŞEFAATLİ COURT BUILDING
ÇAYIRALAN COURT BUILDING
IĞDIR PENAL INSTITUTION
SIVEREK PENAL INSTITUTION
IĞDIR PENAL INSTITUTION
DIYARBAKIR PENAL INSTITUTION 1ST STAGE SWITCHBOARDS
DIYARBAKIR PENAL INSTITUTION 2ND STAGE SWITCHBOARDS
ERZINCAN PENAL INSTITUTION
IZMIR BUCA PENAL INSTITUTION
BITLIS AHLAT PENAL INSTITUTION
MALATYA DOĞANŞEHİR PENAL INSTITUTION
AHLAT PENAL INSTITUTION

HIGHLIGHTED REFERENCES

TOKİ AND PRIVATE HOUSING SWITCHBOARDS

ADANA CONTAINER
KENT ADIYAMAN BUHARA EVLERI
TOKI AKSARAY RESIDENCES
TOKİ ALTINDAĞ ANKARA RESIDENCES
TOKI ANKARA MAMAK 1250 RESIDENCES
TOKİ ANKARA POLATLI 100 RESIDENCES
C2 TYPE TOKİ ARDAHAN HOUSING PROJECT 96 RESIDENCES
TOKİ BALIŞEYH HOUSING PROJECT 144 RESIDENCES
BOLU HAIT MILITARY HOUSING PROJECT 180 RESIDENCES
TOKİ ERZURUM HOUSING PROJECT 850 RESIDENCES
HAKKARI 192 RESIDENCES
ISPARTA GELENDOST 2ND STAGE 293 RESIDENCES
IHLAS HOLDING GÜZEL ŞEHİR VILLAS
TOKİ KESKİN HOUSING PROJECT 192 RESIDENCES
KÜTAHYA 1453 RESIDENCES
KÜTAHYA GEDİZ 4TH STAGE 357 RESIDENCES
TOKİ NIGDE HOUSING PROJECT 512 RESIDENCES
TOKİ ORDU HOUSING PROJECT 742 RESIDENCES
TOKİ PENDİK HOUSING PROJECT 1056 RESIDENCES
TOKİ SEREFLIKOCHISAR HOUSING PROJECT 540 RESIDENCES
VAN MERKEZ KEVENLİ 800 RESIDENCES AND SOCIAL FACILITY CONSTRUCTION
TOKİ YAHSIHAN HOUSING PROJECT 358 RESIDENCES
TOKİ ERZURUM YILDIZKENT 1 RESIDENCES
TOKİ ERZURUM YILDIZKENT 2 RESIDENCES
TOKİ ZONGULDAK DEVREK ÇAYDEĞİRMENI HOUSING PROJECT 160 RESIDENCES

HIGHLIGHTED REFERENCES

MINISTRY OF YOUTH AND SPORTS PROJECTS

HATAY CITY STADIUM 25,000 PEOPLE
ÇORUM CITY STADIUM 15,000 PEOPLE
URFA CITY STADIUM 30,000 PEOPLE
GAZİANTEP CITY STADIUM 33,000 PEOPLE
BURDUR M. AKIF ERSOY UNIVERSITY STADIUM 14,000 PEOPLE
BURDUR M. AKIF ERSOY UNIVERSITY CAMP CENTER
TRABZON ATHLETICS TRACK
RIZE PAZAR SEMI OLYMPIC FACILITY
ÇORUM OSMANCIK STUDENT DORMITORY (300 BEDS)
KONYA HADİM STUDENT DORMITORY (300 BEDS)
SAMSUN STUDENT DORMITORY (2000 BEDS)
NIGDE UNIVERSITY DORMITORY 1000 PEOPLE
ANKARA UNIVERSITY GÖLBASI CAMPUS STUDENT DORMITORY
BURSA GEMLIK KARACAALI SCOUTING CAMP
ISLAHIYE DORMITORY (300 BEDS) ISPARTA STUDENT DORMITORY
SAMSUN ÇARŞAMBA STUDENT DORMITORY
SAKARYA AKYAZI STUDENT DORMITORY
KAĞIZMAN DORMITORY (400 BEDS)
BURSA DORMITORY (2000 BEDS)
BURSA DORMITORY (1000 BEDS)
IĞDIR DORMITORY (1700 BEDS)
ARTVIN DORMITORY (1450 BEDS)
ANTALYA DORMITORY (2000 BEDS)

HIGHLIGHTED REFERENCES

TURKISH ELECTRICITY DISTRIBUTION CORPORATION (TEDAŞ) PROJECTS

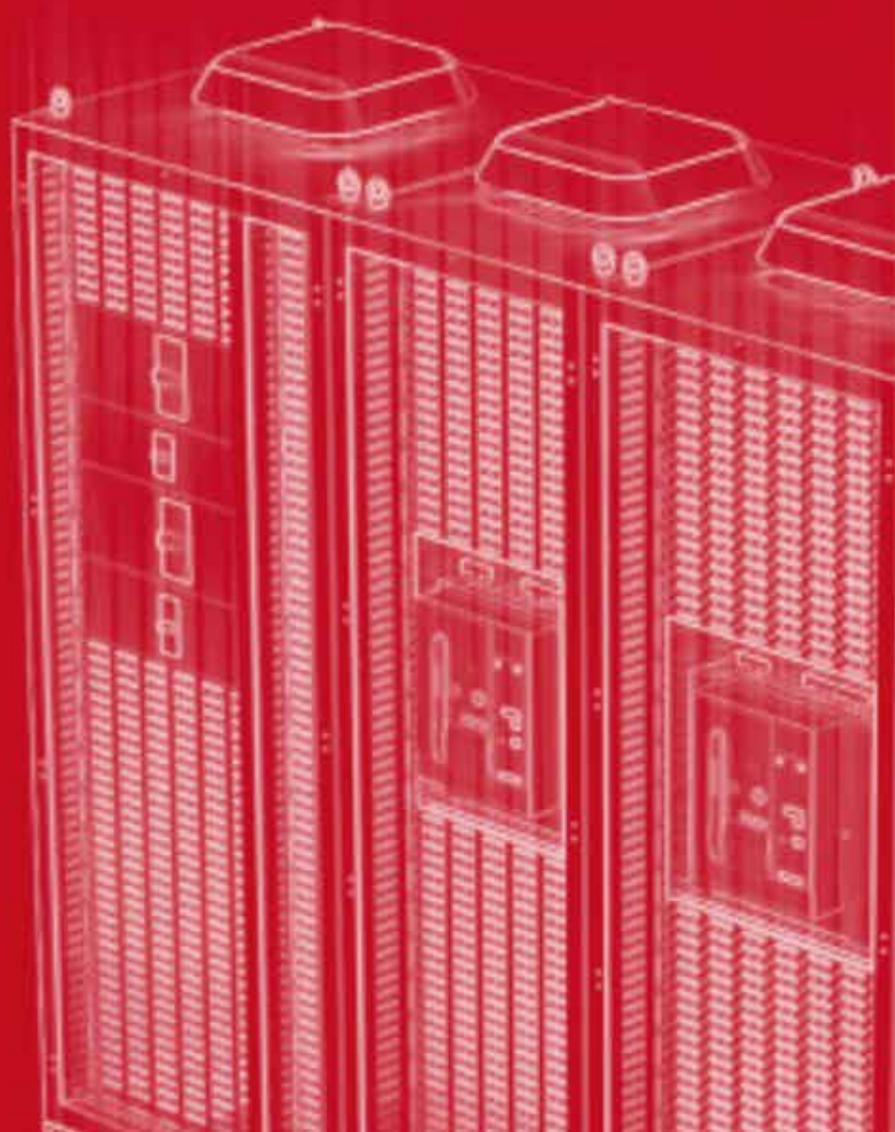
- AKEDAŞ NETWORK DISTRIBUTION BOARDS IN 2013
- SAKARYA EDAŞ LV DISTRIBUTION BOARDS BETWEEN 2006 AND 2021
- ENERJISA BAŞKENT, AYEDAŞ, AND TOROSLAR UTILITY ELECTRICITY DISTRIBUTION COMPANIES LV DISTRIBUTION BOARDS BETWEEN 2011 AND 2012 AND IN 2015, 2016, 2018, 2019
- ENERJISA BAŞKENT, AYEDAŞ, AND TOROSLAR UTILITY ELECTRICITY DISTRIBUTION COMPANIES LV DISTRIBUTION BOARDS FOR 2011-2012 AND 2015-2016 (PROVIDED THROUGH MV POWER GENERATING COMPANIES.)
- AKSA ENERJİ ÇORUH AND FIRAT UTILITY ELECTRICITY DISTRIBUTION COMPANIES TEDAŞ LV DISTRIBUTION BOARDS BETWEEN 2011 AND 2013
- DICLE EDAŞ TEDAŞ LV DISTRIBUTION BOARDS IN 2013
- KCETAŞ TEDAŞ LV DISTRIBUTION BOARDS IN 2013, 2014, 2015, 2016
- ALCEN TEDAŞ LV DISTRIBUTION BOARDS IN 2013, 2014, 2015, 2016,
- METER PANELS, SOLAR POWER PLANT BOARDS
- DICLE UTILITY ELECTRICITY DISTRIBUTION COMPANY TEDAŞ LV DISTRIBUTION BOARDS IN 2013
- CLK (BOĞAZİÇİ) TEDAŞ LV METER BOARDS IN 2014
- CLK (ÇAMLIBEL) TEDAŞ LV DISTRIBUTION BOARDS IN 2014
- CLK (AKDENİZ) TEDAŞ LV DISTRIBUTION BOARDS IN 2014, 2019, 2020
- ENERJISA METER TRAINING BOARDS
- TRNC KIBTEK LV DISTRIBUTION BOARDS IN 2019
- VANGÖLÜ UTILITY ELECTRICITY DISTRIBUTION COMPANY LV DISTRIBUTION BOARDS, LVMA PANELS AYDEM 2019 TEDAŞ LV DISTRIBUTION BOARDS (PROVIDED THROUGH MV POWER GENERATING COMPANIES.)
- GEDIZ 2019 TEDAŞ LV DISTRIBUTION BOARDS (PROVIDED THROUGH MV POWER GENERATING COMPANIES.)
- ARAS UTILITY ELECTRICITY DISTRIBUTION COMPANY TEDAŞ LV DISTRIBUTION BOARDS IN 2017 AND 2020
- OSMANGAZİ UTILITY ELECTRICITY DISTRIBUTION COMPANY TEDAŞ LV DISTRIBUTION BOARDS IN 2019
- OSMANGAZİ UTILITY ELECTRICITY DISTRIBUTION COMPANY TEDAŞ LV DISTRIBUTION BOARDS IN 2020 (PROVIDED THROUGH MV POWER GENERATING COMPANIES.)
- TOROSLAR UTILITY ELECTRICITY DISTRIBUTION COMPANY TEDAŞ LV DISTRIBUTION BOARDS AND BOXES IN 2021
- KCETAŞ UTILITY ELECTRICITY DISTRIBUTION COMPANY TEDAŞ LV DISTRIBUTION BOARDS AND BOXES IN 2021
- VAN UTILITY ELECTRICITY DISTRIBUTION COMPANY TEDAŞ LV DISTRIBUTION BOARDS AND BOXES IN 2021

HIGHLIGHTED REFERENCES

SUPERSTRUCTURE PROJECTS

REPUBLIC OF TURKEY PRIME MINISTRY MAIN BUILDING
REPUBLIC OF TURKEY ZIRAAT BANK HEAD OFFICE BUILDING
1071 KONUTLARI RESIDENCE PROJECT IN ANKARA
ANKARA KUZEYKENT CENTRAL MOSQUE COMPLEX AND CULTURE AND CONGRESS CENTER
CSUN EURASIA SOLAR PANEL FACTORY SINPAS ALTINORAN TRANSFER PANELS
ANKARA İVEDİK TECHNOCITY BUILDING
ANKARA SMALL AND MEDIUM ENTERPRISES DEVELOPMENT ORGANIZATION HEAD OFFICE BUILDING
ANKARA EGO GENERAL DIRECTORATE
MKE HEAD OFFICE BUILDING
TPAO GENERAL DIRECTORATE
SOCIAL FACILITIES OF THE PRESIDENCY OF RELIGIOUS AFFAIRS / ANKARA
KÜTAHYA SSI BUILDING
ESKISEHIR TAX OFFICE
GOVERNMENTAL OFFICES BUILDING IN YOZGAT CEREK
VAN REFUGEE CAMP PANELS
ANTALYA NOBILIS GOLF RESORT HOTEL
AFYON IKBAL HOTELS
KAYSERİ TELEKOM PROVINCIAL DIRECTORATE
TOKAT TELEKOM PROVINCIAL DIRECTORATE
EREGLI BUSINESS CENTER
SİİRT SSI BUILDING
PARK FORBES BODRUM LUJO HOTEL
ANKARA TOREKENT LV SWITCHBOARDS
ISTANBUL TRT DIRECTORATE TELE-CINE
KONYA BÜSAN ORGANIZED INDUSTRIAL ZONE
ISPARTA FRESH MEAT INTEGRATED FACILITIES
ISTANBUL WHOLESALE BAZAAR
GİSTAŞ INC. (KASKİ DOKUZPINARLAR AUTOMATION AND SWITCHBOARDS SUPPLY)
GAZIPASA ANTALYA WASTEWATER TREATMENT PLANT
TURKCELL DATA CENTER
YOZGAT PERSONNEL TRAINING CENTER
TROYA MUSEUM MCC BOARDS
POLATLI THEATER HALL
CIZRE MUNICIPALITY BUILDING
ANKARA AKKENT RESIDENCES
İNÖNÜ UNIVERSITY 2ND STAGE
YOZGAT-YERKOY HIGH SPEED TRAIN PROJECT
YEDİTEPE UNIVERSITY MCC BOARDS
RIZE FINDIKLI HOTEL
AKKENT TWINS TRADE
TEZ KOOP-İŞ
BURHANİYE SOCIAL FACILITIES
ESKISEHIR NATIONAL GARDEN
MALATYA ERMAN ILICIAK SCIENCE HIGH SCHOOL
ZEYTINBURNU MUNICIPALITY VELIEFENDI ICE HOCKEY HALL
MOSSDECO PROJECT
OKT PROJECT
MAN VALIDATION PROJECT

AFB ENERGY



OUR OTHER GROUP COMPANIES
GÖKSU TRADE LTD. CO.
PROTON AUTOMATION LTD. CO.
TURK ENERGY INC.

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