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## ABOUT US

EMI A.S. was established as one of the leaders in manufacture of electrical components and equipments in 1978. Since that time, we have steadily expanded our product range and quality standards. We operated in 1st Industrial Park and Izmir Atatürk Industrial Zone from 1992 to 2002.

The manufacture has been continued in Izmir Menderes ITOB Organized Industrial Zone. EMI A.S. aims to produce high quality equipments and supply them just in time for the best prices for the clients.

Our certifications are; TSE (Turkish Standard Institutions), TSEK and CESI Quality Standardization Certificates

The equipments and machines are produced with ISO 9001:2015 Quality Management Guarantee in EMI Design and Production.

- Medium Voltage Indoor and Outdoor Disconnectors
- High Voltage Fuses
- Low Voltage and Double Throw Disconnecting Switches
- Low Voltage Load Disconnecting Switches
- Low Voltage Fuse Disconnecting Switches
- Earthing Plates, Rods, Bonds, Faraday Cage
- Copper Connectors
- Lighting Fixtures
- Alpek Iron Equipments

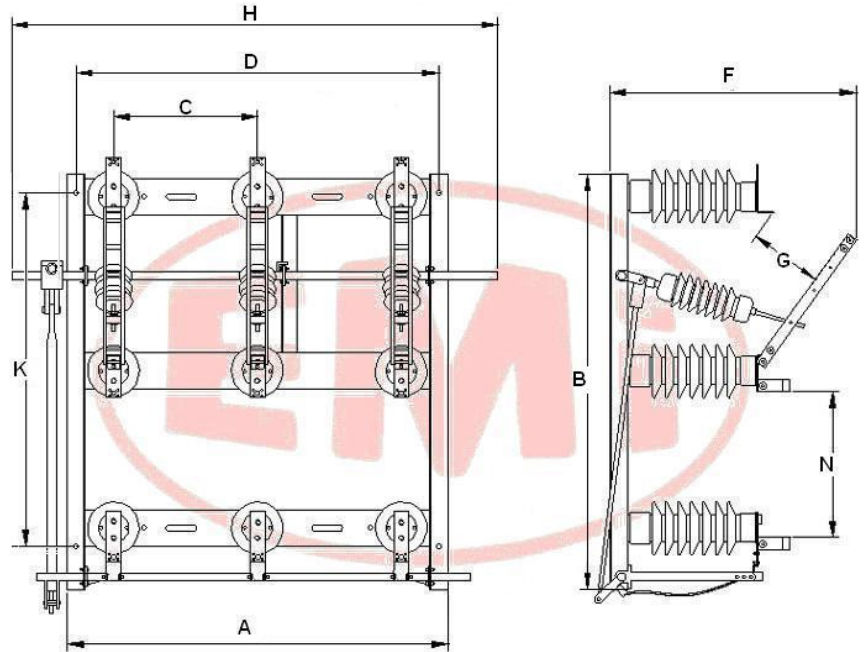
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# Medium Voltage Outdoor Switch Disconnectors



TYPE	Rated Voltage (kV)	Rated Current (A)	A	B	C	D	F	G	H	K	N
Outdoor Normal HNA	7,2 – 12	630A	1080	690	400	1020	680	265	1280	470	--
	17,5 – 24		1220	790	490	1160	1030	430	1280	570	--
	36		1220	790	490	1160	1030	430	1280	570	--
Outdoor Earthing HTA	7,2 – 12	630A	1080	790	400	1020	680	265	1280	570	--
	17,5 – 24		1220	900	490	1160	1030	430	1280	680	--
	36		1220	900	490	1160	1030	430	1280	680	--
Outdoor Fuse HSA	7,2 – 12	630A	1080	1095	400	1020	680	265	1280	875	296
	17,5 – 24		1220	1360	490	1160	1030	430	1280	1140	546
	36		1220	1360	490	1160	1030	430	1280	1140	546
Outdoor Fuse Earthing HSTA	7,2 – 12	630A	1080	1195	400	1020	680	265	1280	975	296
	17,5 – 24		1220	1470	490	1160	1030	430	1280	1250	546
	36		1220	1470	490	1160	1030	430	1280	1250	546

**We produce 1250A – 2500A disconnector**

We can make change our dimensions.

## GENERAL INFORMATION

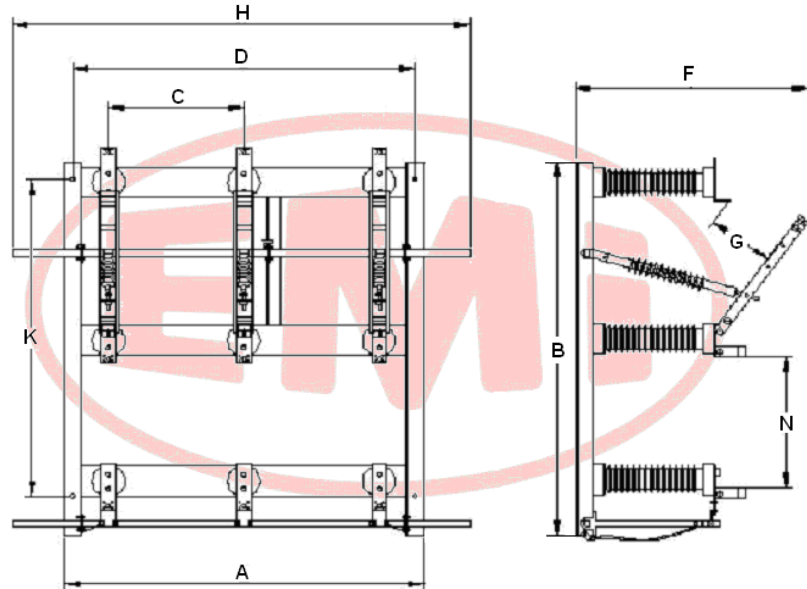
Medium voltage outdoor disconnectors are manufactured by using high quality materials and provide a safe area to work. For the best evolution of main and earthing shafts; the shaft bearings are produced from brass. Using brass also prevents furring. Shafts, frames, joints, control mechanism, pipetongs and shaft couplings of the disconnectors are hot-dip galvanized. Other hardware materials of the product are zinc and cadmium plated.

20mm/kV or 25mm/kV porcelain or silicon insulators are used for the disconnectors. All copper terminals and surface of copper handles that touch the terminals are electro-silver plated. Double coil springs are used in order to ensure that copper handles touch terminals properly.

MV Disconnectors should be used only for switching on and off unloaded circuits. It is extremely dangerous to switch it on/off while it has electric load. Disconnectors are packed with control mechanism, joints, pipetongs, shaft couplings. To ensure product safety, wooden packages are used for delivery.

Our disconnectors are certified by TSE, TSEK standards and tested in CESI laboratories. The products are manufactured under the guarantee of ISO-9001:2015 and also suitable for specification of electric companies.

# Medium Voltage Indoor Switch Disconnectors



TYPE	Rated Voltage (kV)	Rated Current	A	B	C	D	F	G	H	K	N
Indoor Normal DNA	7,2 – 12	630A	905	415	300	860	455	160	1140	195	--
	17,5 – 24		1285	660	490	1240	860	380	1720	440	--
	36		1285	660	490	1240	860	380	1720	440	--
Indoor Earthing DTA	7,2 – 12	630A	905	505	300	860	455	160	1140	285	--
	17,5 – 24		1285	770	490	1240	860	380	1720	550	--
	36		1285	770	490	1240	860	380	1720	550	--
Indoor Fuse DSA	7,2 – 12	630A	905	821	300	860	455	160	1140	601	296
	17,5 – 24		1285	1325	490	1240	860	380	1720	1105	546
	36		1285	1325	490	1240	860	380	1720	1105	546
Indoor Fuse Earthing DSTA	7,2 – 12	630A	905	921	300	860	455	160	1140	701	296
	17,5 – 24		1285	1425	490	1240	860	380	1720	1205	546
	36		1285	1425	490	1240	860	380	1720	1205	546

**We produce 1250A – 2500A disconnector**

We can make change our dimensions.

## GENERAL INFORMATION

Medium voltage indoor disconnectors are manufactured by using high quality materials and provide a safe area to work. For the best volution of main and earthing shafts; the shaft bearings are produced of brass. Using brass also prevents molding.

20mm/kV or 25mm/kV porcelain or epoxy insulators are used for the disconnectors. Shafts, frames, joints, control mechanism, pipetongs and shaft couplings of the disconnectors are hot-dip galvanized. Other hardware materials of the product are zinc and cadmium plated. All copper terminals and surface of copper handles that touch the terminals are electro-silver plated. Double coil springs are used in order to ensure that copper handles touch terminals properly.

To ensure product safety, wooden packages are used for delivery. MV Disconnectors should be used only for switching on and off unloaded circuits. It is extremely dangerous to switch it on/off under electric load.

Our disconnectors are certified by TSE, TSEK standards and tested in CESI laboratories. The products are manufactured under the guarantee of ISO-9001:2015 and also suitable for specification of electric companies.



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## High Voltage Fuses Back-up Type and Thermal Protection Type

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Our High Voltage Fuses are produced in accordance with IEC 60282-1 Standard and all our products are produced in accordance with ISO 9001: 2015 Quality Management System.

General specifications of our High Voltage Fuses produced in accordance with IEC 60282-1 standard;

- Current limiting type
- Back-up class
- High breaking capacity
- Indoor and outdoor type
- Striker pin
- Thermal protection
- Rated voltage value 7,2 kV – 12 kV – 17,5 kV – 24 kV – 36kV
- Rated current value in the range of 2 A – 160 A ( We can produce higher the rated current value up to direction of the our customers demands. )

Our High Voltage Fuses are used to protect the motor, capacitor groups and other switching elements in power transmission lines, indoor and outdoor transformers, substations against thermal and dynamic influences which may be caused by short circuit currents outside of the allowed values.

A type approval tests of 36 kV, 6,3 A, 10 A, 16 A, 20 A, 25 A, 31 A, 40 A of our High Voltage Fuses have been performed successfully in KEMA High Voltage Laboratory and in our company's High Voltage Laboratory under the supervision of the Turkish Standards Institute personnel.

### **HIGH VOLTAGE FUSES with THERMAL PROTECTION**

The range between minimum breaking current ( $I_3$ ) and maximum breaking current ( $I_1$ ) is the range the fuse provides safe breaking. Operating at values between the Fuse rated current ( $I_n$ ) and the minimum breaking current ( $I_3$ ) can cause the fuse to fail and damage the environment due to excessive thermal stresses.

Our **HIGH VOLTAGE FUSES with THERMAL PROTECTION** manufacture having mechanical opening mechanism is available for use in the facilities where this problem exists.

Thermic opening mechanism: if the fuse is loaded with a load outside of the permissible limits, the striker pin is released avoiding any incidents due to thermal stresses, and it opens the circuit of the system to which it is connected and enables the system to cut off energy. Thus, it protects the system without harming its environment.



# High Voltage Fuses Back-up Type and Thermal Protection Type

## TECHNICAL SPECIFICATIONS

7,2 kV - 12 kV - 17,5 kV								
Rated Voltage	Rated Current	Dimensions			Cold Resistance	Power Dissipation	Weight	
U <sub>n</sub> kV	I <sub>n</sub> A	Ød mm	Øe mm	L mm	R mΩ	P W	kg	
7,2	2	53	56	292	1570	8	1,7	
	4				1008	18		
	6,3				505	25		
	10				181	22		
	16				131	45		
	20				99	55		
	25				77	71		
	31,5				59	92		
	40				43	117		
	50				33	144		
	63	29	189					
	80	22	232	3,1				
	100	16	248					
	125	12	285					
	160	7	298					
	12	2	53		56	292	1570	8
4		1900					18	
6,3		505		25				
10		181		22				
16		131		45				
20		99		55				
25		77		71				
31,5		59		92				
40		43		117				
50		33		144				
63		29	189					
80		22	232	3,1				
100		16	248					
125		12	285					
160		7	298					
17,5		2	53		56	442	2265	12
	4	1457					28	
	6,3	700		32				
	10	262		33				
	16	189		65				
	20	143		80				
	25	105		104				
	31,5	85		151				
	40	62		200				
	50	49		215			4,4	
	63	42	295					
	80	31	325					
	100	22	345					
	125	16	367					
	160	12	378					

24 kV - 36 kV							
Rated Voltage	Rated Current	Dimensions			Cold Resistance	Power Dissipation	Weight
U <sub>n</sub> kV	I <sub>n</sub> A	Ød mm	Øe mm	L mm	R mΩ	P W	kg
24	2	53	56	442	2265	12	2,4
	4				1457	28	
	6,3				700	32	
	10				262	33	
	16				189	65	
	20				143	80	
	25				107	104	
	31,5				85	151	
	40				62	200	
	50				49	215	
	63	42	295				
	80	31	325				
	100	22	345				
	125	16	367				
	160	12	378				
	36	2	53	56	537	2950	15
4		1550				35	
6,3		950				45	
10		340				38	
16		245				89	
20		185				104	
25		145				150	
31,5		110				185	
40		80				240	
50		60				280	5,4
63		53	350				
80		40	410				
100		29	435				
125		21	445				
160		15	458				



## High Voltage Fuses Back-up Type and Thermal Protection Type

### FUSE SELECTING TABLE FOR THE PROTECTION OF TRANSFORMERS 7,2 kV / 12kV / 17,5kV

Transformer Rated Voltage		Transformer Rated Power	High Voltage Fuses Rated Current	
Primary Voltage / U1N	Secondary Voltage / U2N		Min.	Max.
kV	V	kVA	A	A
6 / 7,2	400 / 231	50	10	16
		100	16	25
		160	20	31,5
		250	25	40
		400	40	63
		630	50	125
		800	63	160
		1000	80	160
		1250	100	160
		1600	125	160
10 / 12	400 / 231	50	10	16
		100	16	25
		160	20	31,5
		250	25	40
		400	40	63
		630	50	125
		800	63	160
		1000	80	160
		1250	100	160
		1600	125	160
15 / 17,5	400 / 231	50	4	6,3
		100	10	16
		160	10	20
		250	16	25
		400	25	40
		630	31,5	63
		800	40	63
		1000	50	80
		1250	63	100
		1600	100	160
2000	125	160		

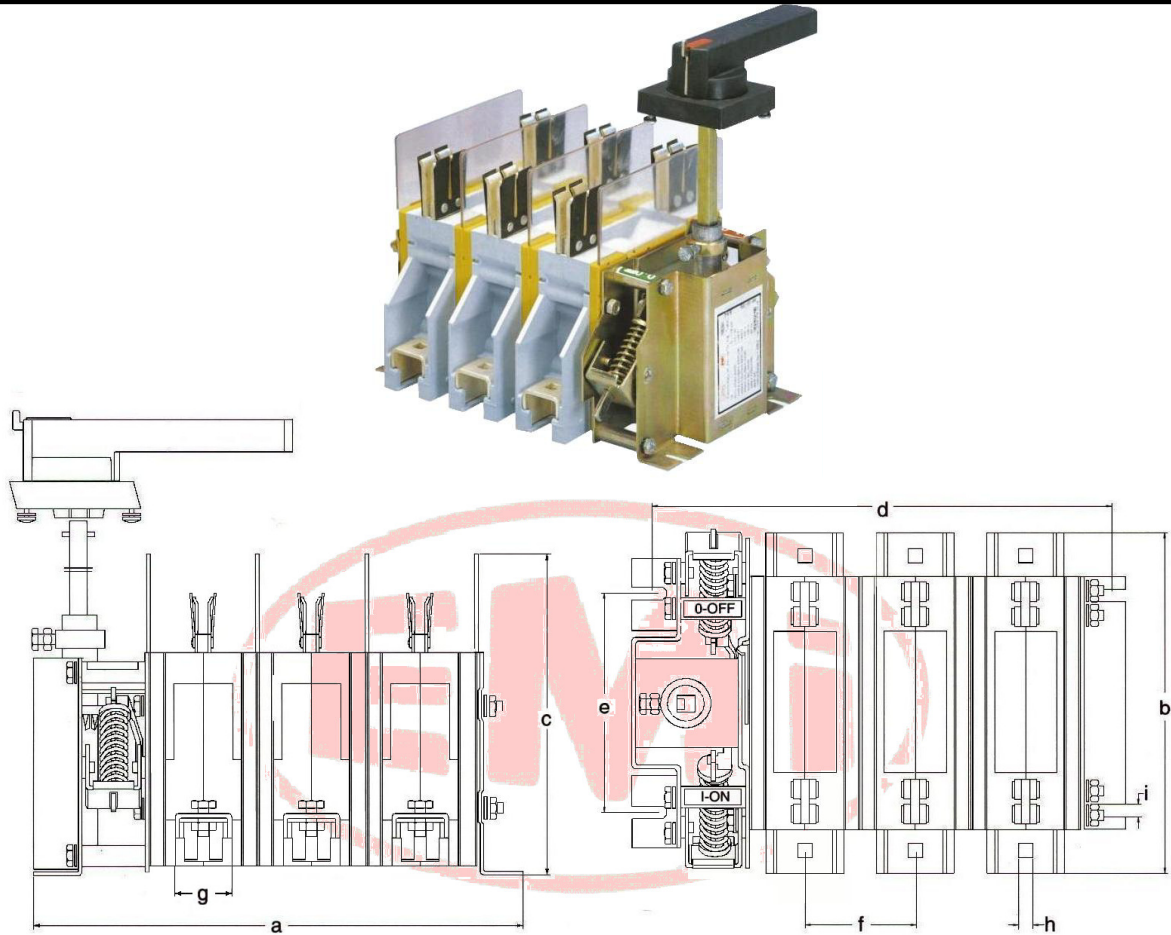


## High Voltage Fuses Back-up Type and Thermal Protection Type

### FUSE SELECTING TABLE FOR THE PROTECTION OF TRANSFORMERS 24 kV / 36 kV

Transformer Rated Voltage		Transformer Rated Power Min.	High Voltage Fuses Rated Current	
Secondary Voltage / U2N	Sekonder Gerilim U2N		Max.	Max.
kV	V	kVA	A	A
20 / 24	400 / 231	50	4	6,3
		100	10	16
		160	10	20
		250	16	25
		400	25	40
		630	31,5	63
		800	40	63
		1000	50	63
		1250	63	100
		1600	100	160
2000	125	160		
30 / 36	400 / 231	50	2	4
		100	4	4
		160	6,3	6,3
		250	10	16
		400	16	20
		630	25	31,5
		800	31,5	31,5
		1000	40	50
		1250	50	80
		1600	63	80
2000	80	100		

# Low Voltage Fused Load Breaking Switches



Type	Rated Operating Voltage	Rated Insulating Voltage	Rated Operating Current	Main Thermic Current	Rated Closing Capacity	Rated Cutting Capacity	Rated Short Time Withstand Current	Rated Short Circuit Closing Capacity	Fuse Type	Mechanical Withstand	a	b	c	d	e	f	g	h	i	Connecting Bolt	Weight (kg)
160	400 V	600 V	160 A	160 A	500 A	500 A	50 kA	85 kA	NH 00	5000	224	196	180	207	119	45	32	8.5	7	M8x20	5,5
250	400 V	600 V	250 A	250 A	750 A	750 A	50 kA	85 kA	NH 1	5000	270	196	180	253	119	60	32	8.5	7	M8x20	6,3
400	400 V	600 V	400A	400A	1200 A	1200 A	50 kA	85 kA	NH 2	5000	270	196	180	253	119	60	32	8.5	7	M8x20	6,9

## GENERAL INFORMATION

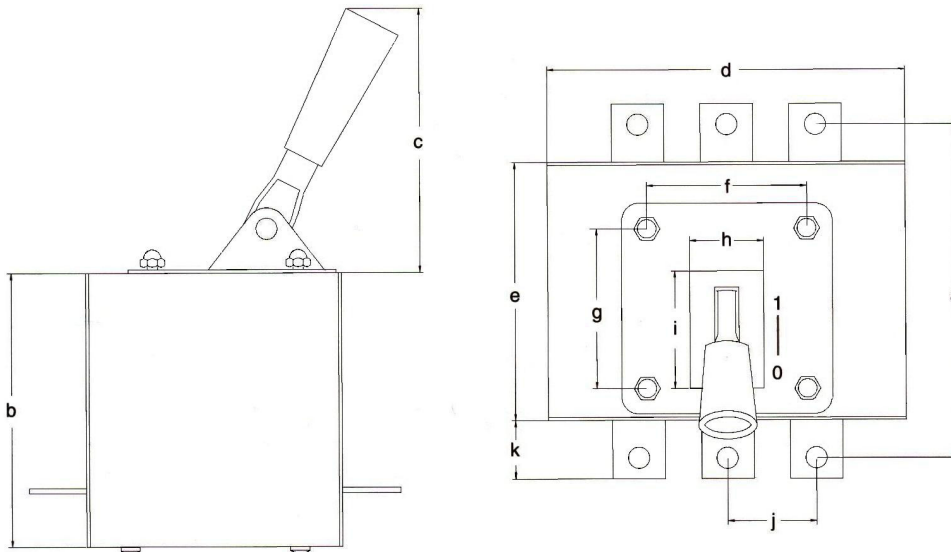
EMİ L.V. fused disconnecting switches are produced according to TS standards, IP 31 protection category and AC-22 class. Products are manufactured by using high quality and from durable materials. Our L.V. fused disconnecting switches are particularly used at light distribution panels safely. As there are 4 different components for switching on/off function, changing of fuses can be done safely.

If a breakdown occurs in the panel that connected to the switch, it is possible to create safety working area by using the lock mechanism on the switch handle.

Our switches certified by ISO-9001:2015 Quality Assurance System and tested in CESI laboratories.



# Low Voltage Load Breaking Switches



Type	Rated Operating Voltage	Rated Insulating Voltage	Rated Operating Current	Pre-Fuse Current	Short Circuit Current † "Eff" 0.3 second	Short Circuit Current † "Peak" 0.3 second	Breaking Time	a	b	c	d	e	f	g	h	i	j	k	Connecting Bus	Connecting Bolt	Weight (kg)
160	380V	500V	160A	300A	10kA	25kA	12ms.	164	135	125	170	120	70	70	36	56	43	32	25x2,5	M8x20	3,4
250	380V	500V	250A	400A	12kA	30kA	12ms.	164	135	125	170	120	70	70	36	56	43	32	25x5	M8x20	3,6
400	380V	500V	400A	630A	12kA	40kA	12ms.	164	140	125	210	120	70	70	36	56	66	36	33x5	M8x20	4,6

## GENERAL INFORMATION

EMİ L.V. Disconnecting Switches and Double Throw Disconnecting Switches are produced according to TS 565 EN 60129 AC-20 class and ISO 9001 Quality Assurance System. EMİ L.V.

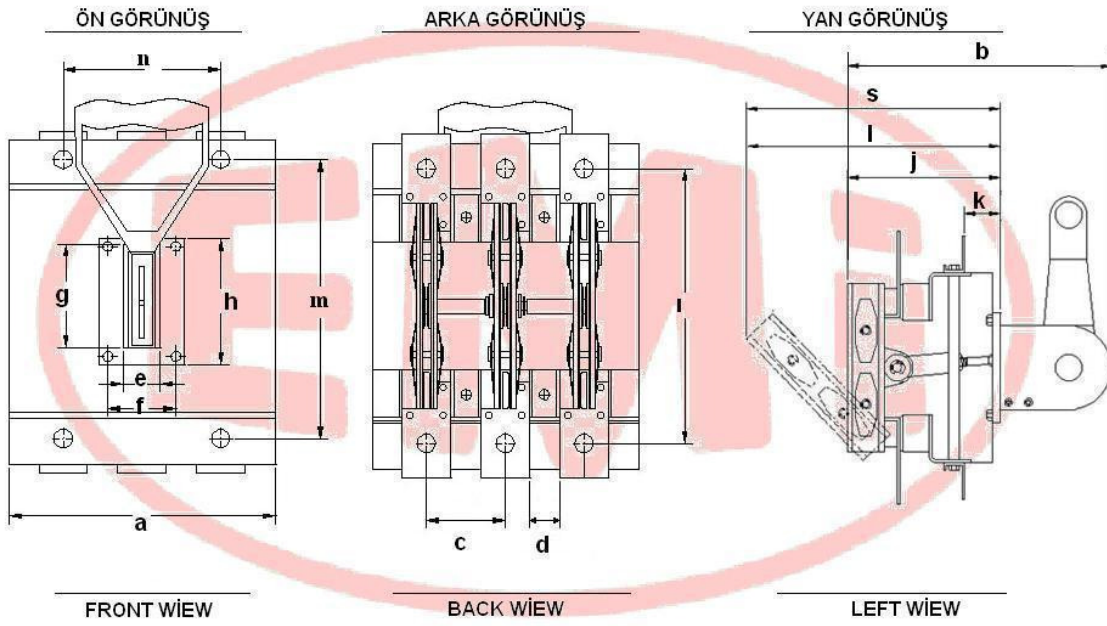
Switches that we produce can be easily fit to the distribution panel boards. Frames of the switches are made from electro cadmium plated sheet iron to be long lasting. Operating bodies and handles are made from special strong plastics for isolation.

Fixed and moving terminals are made from electrolytic copper and silver plated for minimizing of transition resistance. In case of to prevent unwanted switched on/off, control panels can be removable.

L.V. Disconnecting Switches and Double Throw Disconnecting Switches are designed for off load operations. Using them on load operations is dangerous. EMİ LV disconnecting switches and double throw disconnecting switches are suitable for electric companies' specifications.

## Low Voltage

# Low Voltage Disconnecting Switches and Double Throw Disconnecting Switches



Type	Rated Operating Voltage	Rated Insulating Voltage	Rated Operating Current	a	b	c	d	e	f	g	h	i	j	k	l	m	n	Inverter		Connecting Bus	Connecting Bolt	Weight (kg)
																		a	s			
125	400V	600V	125A	130	197	43	18	30	50	85	94	145	88	-	163	-	-	154	185	25x1,5	M8x20	1,6
160	400V	600V	160A	130	197	43	18	30	50	85	94	145	88	-	163	-	-	154	185	25x1,5	M8x20	1,7
200	400V	600V	200A	130	197	43	18	30	50	85	94	145	88	-	163	-	-	154	185	25x2,5	M8x20	1,8
250	400V	600V	250A	130	197	43	18	30	50	85	94	145	88	-	163	-	-	154	185	25x2,5	M8x20	1,8
400	400V	600V	400A	220	250	70	30	30	50	85	94	250	140	38	230	230	143	220	295	40x2,5	M10x25	5,3
630	400V	600V	630A	220	250	70	30	30	50	85	94	250	140	38	230	230	143	220	295	40x5	M10x25	6,2
1000	400V	600V	1000A	400	331	120	40	30	50	85	94	370	222	67	325	312	240	450	430	80x5	M10x30	22,7
1500	400V	600V	1500A	400	346	120	40	30	50	85	94	375	237	67	350	312	240	450	440	80x10	M10x35	26,5
2000	400V	600V	2000A	570	349	200	100	30	50	85	94	385	234	67	480	380	400	620	480	100x10	M10x35	41,2
2500	400V	600V	2500A	570	349	200	80	30	50	85	94	435	242	67	535	455	400	620	500	120x10	M10x35	50,5




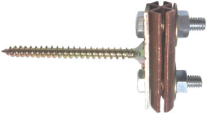





### GENERAL INFORMATION

EMİ L.V. Disconnecting Switches and Double Throw Disconnecting Switches are produced according to TS 565 EN 60129 AC-20 class and ISO 9001:2015 Quality Assurance System.

EMİ L.V. Switches that we produce can be easily fit to the distribution panel boards. Frames of the switches are made from electro cadmium plated sheet iron to be long lasting. Operating bodies and handles are made from special strong plastics for isolation.



Fixed and moving terminals are made from electrolytic copper and silver plated for minimizing of transition resistance. In case of to prevent unwanted switched on/off, control panels can be removable. EMİ L.V. Disconnecting Switches and Double Throw Disconnecting Switches are designed for off load operations. Using them on load operations is dangerous. EMİ L.V. disconnecting switches and double throw disconnecting switches are suitable for electric companies' specifications.

# Lightning Rods and Installation Equipments



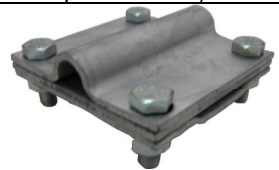
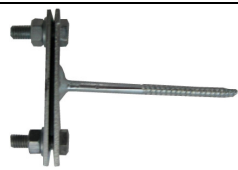
		Lightning Arresters and Equipments			
		Order Code	Type	Dimension	Height
	Ø20600CU	Copper, Cr-Ni Plated	Ø 20mm	60cm	
	Ø20800CU	Copper, Cr-Ni Plated	Ø 20mm	80cm	
	Ø16600P	Stainless 304	Ø 16mm	60cm	
	Ø16800P	Stainless 304	Ø 16mm	80cm	
	Customize production is available upon your needs				
	EYUAA	Lightning Arrester Foot Plate (adjustable)			
EYUAS	Lightning Arrester Foot Plate (fixed)				
	EMI Ground Enhancement Materials For Soil Floors				
	Order Code	Type			
	EDDT	Emi GEM Ground Enhancement Material (10 kg. )			
	Plastic Test Connector				
	Order Code	Type			
	ETKLM	Plastic covered testing connector			
	Conductor Clamp				
	Order Code	Type			
	EDKV	Screw Wall Clamp ( Single - Pairwise )			
	EDKL	Straight Wall Clamp ( Single - Pairwise )			
EDKV	EÇKV	Screw Roof Clamp			
	EPLON	Plon Clamp ( For I-iron and Angle Iron )			
	EMK	Roof Ridge Clamp ( Single - Pairwise )			
	EKK	Roof Tile Clamp ( Single - Pairwise )			
	EBİK	Conductor Pipe Clamp			
	EDTL	Pole Plate ( Medium – Wall – Corner )			
ECKV	EPLON	EMK	EKK	EBİK	EDT
	Earthing Clamps				
	Order Code	Type			
ETK	ETK	Earthing Clamp ( 2mm )			
ETK3	ETK3	Earthing Clamp ( 3mm )			
	ETK.T	Earthing Clamp Single ( 1mm )			
	ETK.T15	Earthing Clamp Single ( 1,5mm )			
	ETK.T 2	Earthing Clamp Single ( 2mm )			
	Pole Lock Clamps				
	Order Code	Type			
EBTKB	EBTKB	Pipe Lock Clamp 2-3" ( Concrete )			
EBTKT	EBTKT	Pipe Lock Clamp 2-3" ( Brick )			
EBYUTK	EBYUTK	Lock Clamp ( Fixing Pipe and Lightning Arresters ) 2-3"			
EBTKT					
				EBYUTK	

## Earthing Materials

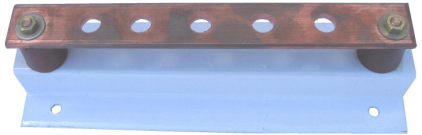

### Earthing Electrode, Plate and Strip

Order Code	Type
ETK	<b>Earthing Electrode Hot Dip Galvanized</b> 50x50x5mm 1 Mt. – 1,5 Mt. – 2 Mt. 60x60x4mm 1 Mt. – 1,5 Mt. – 2 Mt. 60x60x5mm 1 Mt. – 1,5 Mt. – 2 Mt. 60x60x6mm 1 Mt. – 1,5 Mt. – 2 Mt. 65x65x5mm 1 Mt. – 1,5 Mt. – 2 Mt. 65x65x6mm 1 Mt. – 1,5 Mt. – 2 Mt. 65x65x7mm 1 Mt. – 1,5 Mt. – 2 Mt.
ETL	<b>Earthing Plate Hot Dip Galvanized</b> 2x400x1000mm 2x500x1000mm 2,5x500x1000mm 3x500x1000mm
ETS	<b>Earthing Strip Hot Dip Galvanized</b> 30x2mm 30x3mm 30x3,5mm 30x4mm 30x5mm 35x3mm 40x3mm 40x4mm 40x5mm 50x50mm
	
ETS	ETK

### Earthing Materials

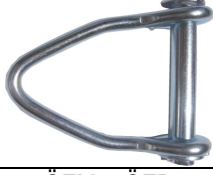




Order Code	Type		
ESK-SS	Strip Clamp strip/strip 60x60x2mm		
ESK-SD	Strip Clamp strip/iron 60x60x2mm		
ESKB-SS	Strip Clamp (Cross) strip/strip 80x80x3mm		
ESKB-SD	Strip Clamp (Cross) strip/iron 80x80x3mm		
EPDB	Potential Balance Bus Bar (tin plated) 3x30x1000mm		
ETKR	Earthing Clamps (carrying the strip on the wall)		
			
ESK-SS	ESK-SD	ESKB	ETKR

### Outdoor Earthing Bus Bar




Order Code	Type
EDTBT	Outdoor Earthing Bus Bar ( Equipotential )
EDTB	Outdoor Earthing Bus Bar
	
EDTBT	EDTB

# Alpek Hardwares and Fixture Consoles


## Alpek Hardware Materials

Order Code	Type	
EOZD	Stirrup Iron	
EOZM	Stirrup Shaft	
EJ	J-Hook ( for Alpek Hardwares )	
EMİPL	Roller Insulator Plate ( for Tensioning )	
EMİZ	Roller Insulator	
EJ KAN	J-Hook ( for Mounting Disconnectors )	
		
ÖZM - ÖZD	EJ	EMİZ
		
EMİPL	EJ KAN	

## Fixture Consoles

Order Code	Type	
SLS101	Fixture Consoles ( Wall )	
SLS102	Fixture Consoles ( Column )	
SLS103	Fixture Consoles ( Gooseneck 42x600x1,5mm )	
SLS104	Fixture Consoles ( Gooseneck 42x600x1,2mm )	
SLS105	Gooseneck Clamp Kit	
		
SLS101	SLS103 - SLS104	SLS102

## " Danger or Death " Warning Signs

Order Code	Type
EMIATL	" Danger of Death " Warning Sign
ETLMC	" Danger of Death " Warning Sign Montage Materials
	
EMIATL	