



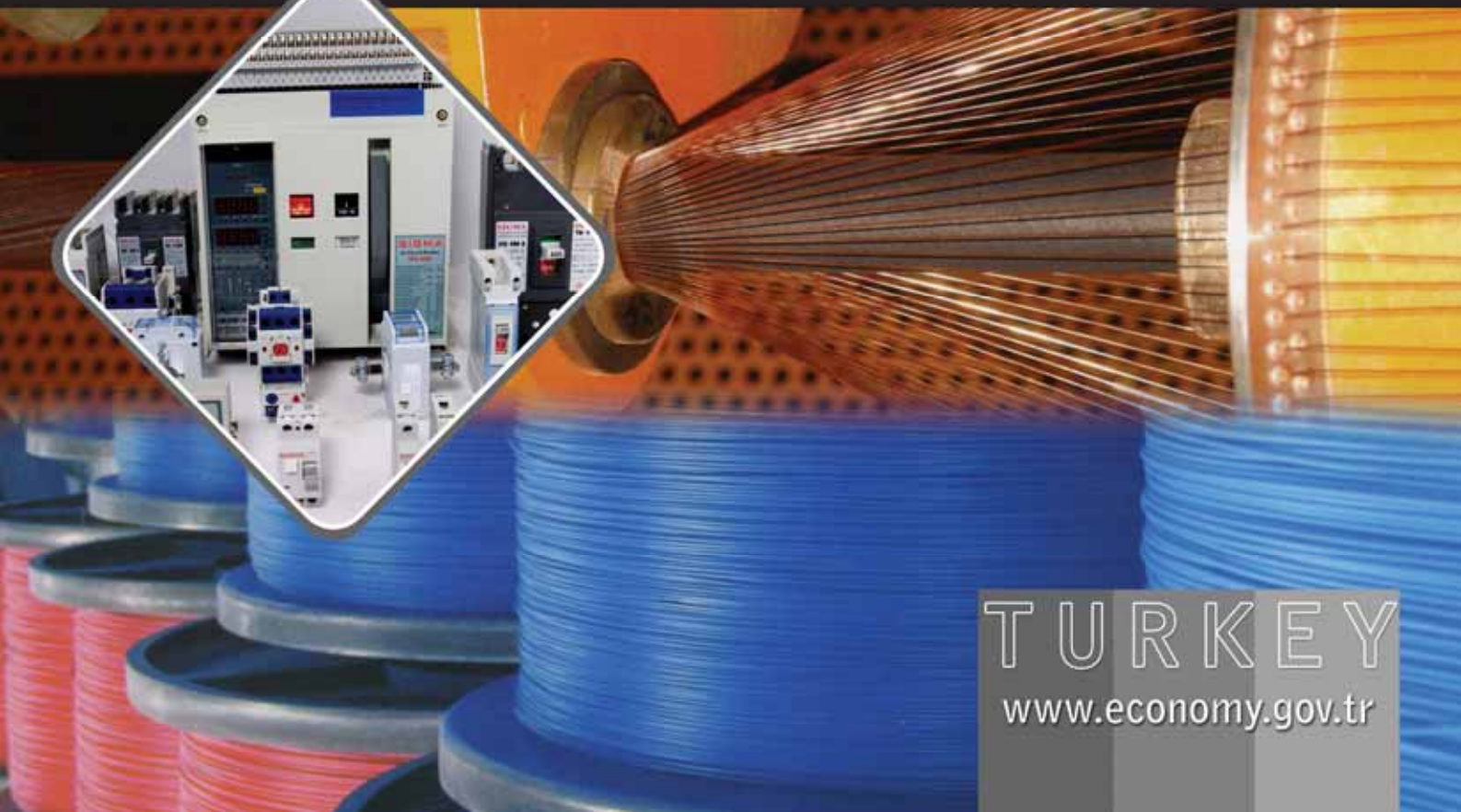
REPUBLIC OF TURKEY
MINISTRY OF ECONOMY



INDUSTRY



ELECTRICAL MACHINERY & CABLES



TURKEY
www.economy.gov.tr

ELECTRICAL MACHINERY AND CABLES

HS Numbers: 8501-8510, 8516, 8532-8548

PRODUCTION

The Turkish electrical machinery sector vitalized itself in the 1990's by diversifying its products and adopting recent technologies in product design and in production processes. The share of the electrical machinery and Cable industry is 4.42% of total exports with a value of US \$ 5,97 billion in 2011.

Turkey produces almost every kind of electrical machinery including: isolated cables and wires; domestic electrical appliances; AC motors; small motors for domestic electrical appliances; all types of power transformers, distribution transformers, and measurement transformers, power generators and electrical equipment such as breakers, contactors, fuses, capacitors, relays, panels and cells; insulators; indoor installation materials and accumulators; batteries; lighting materials; electric carbons and uninterrupted power sources.

The Turkish electrical machinery industry is composed of more than 5,000 companies with medium and small sized companies dominating the industry. The number of people employed in this sector is approximately 56,000. Manufacturing sites are mainly located in the Marmara, Central Anatolia and Aegean Regions of Turkey. İstanbul, Bursa, Konya, İzmir, Ankara and Kayseri are the major cities in electrical machinery and parts production.

Isolated Cables and Wires

Isolated cables and wires have the largest share in the total exports of the Turkish electrical machinery industry. The share of the cables and wires subsector equals 38.7% of the exports of the electrical machinery industry in 2011. The electrical cables industry in Turkey is composed of medium and large sized establishments as well as small sized plants, with most situated in İstanbul. Turkey has a large potential for cable production. There are approximately 23 firms operational in the isolated enamelled winding wire industry, which is an important component of electrical cables. The majority of them are composed of small-capacity plants, with a production capacity of about 25,000 tons. Although the capacity of these establishments is relatively small compared with European firms, these plants use high technology.

Transformers

The share of the transformers subsector equals 12.2% of the exports of the electrical machinery industry in 2011. Power and distribution transformers and measurement transformers are produced effectively in Turkey. The production of power and distribution transformers is realized by nine large and medium sized companies. The capacity of distribution and power transformers in these plants is about 27,000 MVA. The technology used in these factories is compatible with world standards and the quality of Turkish engineering in power transformers is high. In addition, there are 12 large companies which produce measurement transformers up to 400 KV. The measurement transformers industry is competitive in world markets with its technology and product quality.

Domestic electrical appliances

The domestic electrical appliances industry is one of Turkey's well-established and dynamic sectors. The Turkish domestic electrical appliances sector has a wide product range from electrical shavers to microwave ovens. Sector production has been rising continuously since the 1950s. In terms of quantity, domestic electrical appliances production was about 18.4 million units in 2010. Among domestic electrical appliances refrigerators are the most important items with nearly 6.3 million units produced and 4.6 million exported in 2010 . In the year of 2011, nearly 6 million units of refrigerators were exported. There are approximately 800 firms operational in the domestic electrical appliances sector employing 18,433 workers. Production lines are mostly in the Marmara, Aegean and Central Anatolia regions of Turkey. The main factories are located in İstanbul, Manisa, Eskişehir, Bolu, Gebze, Bursa, İzmir, Ankara, Kocaeli, Yalova, Kayseri, Konya and Bilecik.

Electric generator and motors

Electric motors and generators industry exports comprise 2,2 % of the exports of Turkish electrical machinery in 2011. In Turkey, the production of small capacity motors for domestic electrical appliances is successfully carried out by nine medium sized companies. In addition, there are a few large companies producing specialized high capacity electric motors up to 160 KW.

The production of other important electrical equipment such as medium voltage breakers, relays and protection systems; low voltage panels and cells; ceramic insulators and power generators; contactors; fuses; capacitors; indoor installation materials;, lighting materials; accumulators and batteries is carried out by medium and large sized companies in an efficient way. For medium voltage breakers, the annual production capacity of the large sized companies is 22,750 units. Technology and quality are being improved continuously. The production of low voltage panels and cells meets domestic demand. Annual production capacity of the companies operational in the sector is about 190,000 cells. There are 2 medium scale companies in the ceramic insulator sector. Also, there are a large number of small scale producers, amounting to a total capacity of 2,500 tons/year.

The Turkish electrical machinery manufacturers/exporters follow EU technical standards and norms. It is obligatory to affix the "CE Mark" in the Turkish market.

EXPORTS

At present, electrical machinery and cable industry exports comprise 4.42% of total exports. The total export value of electrical machinery was US \$ 4.9 billion in 2010 and US \$ 5.97 billion in 2011. Turkish-made electrical machinery is exported to almost 200 countries throughout the world. In 2010, the United Kingdom was the major buyer of Turkish electrical machinery. Other principal export markets of Turkish electrical machinery are Iraq, Germany, France, Russian Federation, Italy, Turkmenistan, Saudi Arabia and Israel.

The main export products are insulated wires and cables, electric transformers, domestic electrical appliances, switching equipment, electric boards and panels, generating sets and electric accumulators. Among product groups, insulated wires and cables have the largest share in the total exports of electrical machinery. The share of insulated wires and cables in the exports of electrical machinery is 38.7%. Producer and exporter firms in the cable sector are competitive in international markets with their capacity, technology, service and quality. In spite of intense competition in international markets, Turkish cable exports are expected to increase further.

The other significant export product, electric instantaneous water heater, space htg; hair dryer account for 14.3% and electric transformers account for 12,22% of the total exports of the sector. Major export markets for transformers are: Bahrain, Saudi Arabia, Iraq, UK, Libya, UAE, Germany, Nigeria, Turkmenistan and India.

Turkey's Export of Electrical Machinery and Cables (US \$)

Products		2009	2010	2011
8544	Insulated Wire/Cable	1.404.127	1.805.619	2.314.403
8516	Electric Instantaneous Water Heater, Space Htg; Hair Dryer	586.345	702.303	856.586
8504	Electric Transformer, Static Converter (I.E. Rectifiers)	753.249	704.123	730.405
8536	Electrical App For Switchg (Ex Fuse,Switche,Etc) Not Exceedg 1000 Volt	330.152	380.290	506.713
8537	Board & Panels, Equipped With Two/More Switches, Fuses	368.264	355.126	387.850
8502	Electric Generating Sets And Rotary Converters	187.192	213.644	234.996
8507	Electric Accumulator	147.600	185.099	227.563
8538	Part Suitable For Use Solely/Princ With Boards, Panels, Fuses, Switche	95.096	129.654	146.694
8501	Electric Motors And Generators (Excluding Generating Sets)	74.734	98.596	133.975
8503	Parts Suitable For Use Solely/Princ With Machines Of Hd No 85.01/85.02	78.043	81.849	97.321
8535	Electrical App For Switching (Ex Fuse, Switche,Etc) Exceeding 1000 Volt	65.637	57.664	69.620
8543	Electrical Mach&App Having Individual Function, Nes	29.601	34.605	50.798
8508	Electro-Mechanical Tool For Working In The Hand, With Self-Contd Elec-M	30.870	41.352	45.011
8509	Electro-Mechanical Domestic Appliance, With Self-Containd Electric Moto	26.340	38.045	41.631
8547	Insulating Fitting For Elec Mach,App/Equip (O/T Insulator Of Hd No85.4	21.432	24.571	31.989
8539	Electric Filament Or Discharge Lamps	23.230	25.676	29.360
8542	Electronic Integrated Circuits And Micro-Assemblies	13.916	18.009	17.490
8541	Diodes/Transistors & Sim Semiconductor Devices; Etc	4.344	9.805	13.511
8546	Electrical Insulators Of Any Material	8.318	9.314	11.839
8533	Electrical Resistor (incl Rheostats),O/T Heatg	3.582	4.689	6.165
8534	Printed Circuits	4.757	4.587	5.843
8545	Carbon Electrodes / Brushes / Lamp Carbons	5.878	4.569	5.580
8532	Electrical Capacitors, Fixed, Variable Or Adjustable (Pre-Set)	4.681	2.656	4.176
8506	Primary Cells And Primary Batteries	8.246	4.949	2.960
8505	Electro-Magnets; Permanent Magnets; Magnetic Chucks;Etc	5.455	2.688	1.938
8510	Shavers And Hair Clippers, With Selfcontained Electric Motor	1.799	937	1.783
8540	- Thermionic,Cold Cathode Valves&Tube (E.G. Tv Camera Tubes)	568	443	334
8548	- Electrical Parts Of Machinery/App, Nes	343	183	245
Total		4.283.814	4.941.057	5.976.792

Source: Turkish Statistical Institute- TurkStat

Exports of Electrical Machinery and Cables by Countries and Free Zones (US \$)

	Country	2009	2010	2011
1	United Kingdom	355.192	505.345	593.200
2	Iraq	414.660	478.735	571.913
3	Germany	291.591	377.376	471.411
4	France	178.337	223.138	287.810
5	Russian Federation	148.299	190.361	340.493
6	Italy	161.612	168.659	187.391
7	Turkmenistan	172.739	166.091	256.801
8	Saudi Arabia	158.318	152.709	256.353
9	Israel	89.180	134.724	174.516
10	Azerbaijan	105.749	123.703	175.390
11	Iran	99.522	116.732	156.629
12	Belgium	98.058	111.843	131.929
13	UAE	151.381	108.670	103.045
14	Kazakhstan	70.711	90.296	102.003
15	Bulgaria	54.713	80.057	105.242
16	Sweden	63.438	74.111	90.943
17	Algeria	93.740	71.838	85.762
18	Egypt	38.117	56.636	75.923
19	Ukraine	34.130	52.605	84.442
20	Aegean Free Zone	27.686	49.757	84.126.
21	Others	1.476.631	1.607.663	1.641.464
	Total	4.283.814	4.941.057	5.976.792

Source: Turkish Statistical Institute- TurkStat

TRADE FAIRS OF 2012

You can check the list of international and national trade fairs which will be held in 2012, on “electrical machinery, equipment, technology and cables and wires” from “Turkey Fair Guide 2012” web-site (www.fuarrehberi.org.tr)

Useful Links

- General Secretariat of Central Anatolian Exporters’ Union
www.oaib.org.tr/en
- Machinery and Accessories Exporters’ Union
www.makinebirlik.com/en
- Istanbul Minerals and Metals Exporters Union
www.immib.org.tr/en



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Prepared by

General Directorate of Exports

Address: İnönü Bulvarı No:36
06510 Emek
Ankara - Turkey

www.economy.gov.tr

Turkey Contact Point



+90 312 444 43 63