

Three-phase alternating current power meter, K. Szpotański, type BT8

AUTHOR



TIME AND PLACE OF CREATION

Time:

1943

Place:

, Poland

TECHNICAL DATA

Dimensions:

height: 325 mm, width: 195 mm, depth: 137 mm

OTHER

MIM 1713/IV/86

KEYWORDS

elektrotechnika, licznik, prąd, urządzenia
pomiarowe

DESCRIPTION

The consumption of alternating current received from the grid by the customer can be measured using induction meters, among other methods. Of those that still remain in production, it is the oldest type of metering device for the measurement of the consumption of alternating current in kilowatt-hours. The device works as follows: two coils are connected to electricity and generate a magnetic field that sets an aluminium disc in motion. The disc is connected to a drum mechanism that allows the meter to be read. In this case, the amount of electrical energy consumed is proportional to the number of rotations of the disc under the influence of the field generated by the coils. Meters of this type produced today enable the measurement of single-phase or three-phase current consumption, depending on what the customers require. A three-phase supply has the best relationship

between the efficiency of energy transmission and the cost of operating the electrical grid, and is used wherever a single-phase system does not ensure an adequate energy supply. The three-phase induction meter presented here was made in the FAE production facility in Warsaw. It was established in 1918 by Kazimierz Tadeusz Szpotański, who is considered to be the pioneer of the Polish electrical engineering industry. The company was the largest enterprise in the 2nd Republic of Poland to deal with electrical equipment production. After a series of ownership transformations, the factory gave rise to the Polish branch of an international electrical engineering corporation, and in this form to this day. Interesting fact: The high quality and innovation represented by Szpotański's products was recognised in national and international exhibitions, and the engineer himself was awarded with a number of distinctions, including a Knights Cross of the Order of Polonia Restituta.

References: Inż. Kazimierz Szpotański (1887-1966), prepared by. AM, Website of the Warsaw branch of the Association of Polish Electrical Engineers, <http://apw.ee.pw.edu.pl/sep-ow/PLI/szpota/zycior/szpotaKT.htm> (Accessed: 9.05.2021). ZWAR, official website of ABB, <https://new.abb.com/about/history/heritage-brands/zwar> (Accessed: 9.05.2021).