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IMPROVING THE CONTROL AND CONTROL OF THE ENERGY-SUPPLIED ASYNCHRONOUS MOTOR REACTIVE POWER CONSUMPTION THAT SOLAR PANELS ARE DEVELOPING

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Anotation: in the world, solar energy sources are widely used in the continuous and high-quality supply of consumer electricity needs in this regard, large-scale work is being carried out in the energy system in our country, including increasing the quality indicators of electricity developing the most common asynchronous motors solar panels in the industry, increasing the efficiency of asynchronous motors.

Keywords: solar power supply, insulation cline, magnetic core, sator pins, electromagnetic current Switch.

In this regard, 70-80% of the consumer of electricity, in which the use of electricity developing solar panels has become popular in providing consumers with uninterrupted electricity, providing asynchronous motors with uninterrupted and high-quality electricity, through the asynchronous motor confidence in reducing the reactive power wastes consumed, the use of accurate, fast, compact and cost-effective electromagnetic current switches is a pressing issue. Due to the fact that the magnetic core of existing current transformers used in the control and control of large-scale asynchronous motor reactive power consumption of industrial production and the national economy is a ballad of the economic cost of large size, asynchronous motor cannot provide fiber information about the waste of stator currents in control. In the control and control of reactive power consumption in asynchronous motors supplied from a solar power source, the use of electromagnetic current switches placed between asynchronous motor stator wedge and the consistency Cline is the most preferred methods when measuring the scattering magnetic flux occurring in an asynchronous motor stator with high precision. Single-spoke asynchronous motors supplied from a single-phase source account for 30% of the total used motors when industrial production, folk hooliganism, and the maishiy consumer feel the devices added.

In obtaining the results of the research experiment, there is an existing BH-0.66/30 II, which is widely used today, with classical current transformers of type and asynchronous motor stator clamp and transverse cross-sectional surface placed between the isalation Cline S=0.25 mm, li current Switch rings are placed between DOL-34H type asynchronous motor sataor wedge and the isalation Cline asynchronous motor power P=550W, C=18 mF, working capacitor Battery C=10 mF, stator current I=4.1 A, voltage U=220 V, frequency Hz=50 Hz, \eta_n=0.60%, Asynchronous motor with T=1350 ayl/min control and control of reactive power consumption in control and control of reactive power consumption, research the results were presented in Table 1, yellow (-)- electromagnetic current Switch output voltage red (-)- classical current transormator output voltage characteristic, research experiments, dynamic descriptions Prek-TECH-12/65. 2023.

$$\delta = \frac{U_{curre.trans} - U_{ectromagnetic\ curr.transf.}}{U_{telectromagnetic\ cu.transf.}} 100\% \qquad 1)$$

The electromagnetic current transducer as well as the chiqsh characteristics of classical current transformers were calculated through the expression presented above in comparative comparative comparative analysis. Dynamic time dependence descriptions of research results obtained in oscillograms are shown in Table 1.

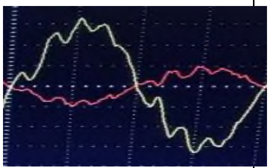
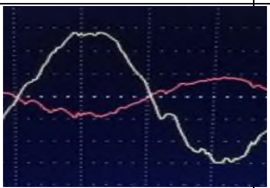
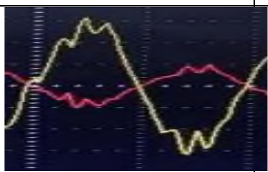
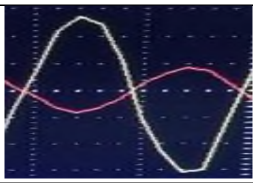
№	Connection scheme status	Oscillogram appearance	Nonsinusoidal coefficient $THD_{nosinus.}$-[%]	Voltage at the output of the electromagnetic current converter U_{exit}-[V]	Amount of current flowing from inductive and capacitive elements I-[A]
1.	An induction motor is connected to the grid only through a phase-shifting capacitor bank		Asynchronous motor in load mode $THD = 6{,}4$	U_{exit}=3,04	I=0,91 I_{C1}=0,97
2.	An asynchronous motor is connected to the network through a phase-shifting inductive coil and a working capacitor battery		Asynchronous motor in load mode $THD = 6.01$	U_{exit}=3,11	I=0,81 I_{C1}=1,04 I_L=0,30
3.	Asynchronous motor starting and connected to the network through the working capacitor battery		Asynchronous motor in load mode $THD = 5{,}8\%$	U_{exit}=4,1	I=1,03 I_{C1}=0,78 I_{C2}=0,38
4.	Asynchronous motor phase shifter through inductive start and working capacitor battery		Asynchronous motor in load mode $THD = 4{,}5\%$	U_{exit}=4,3	I=1,01 I_{C1}=0,75 I_{C2}=0,36 I_L=0,22

Table 1.

From the research experience, it can be concluded that the nosinusoidality indicators of high harmonic currents obtained from the electromagnetic current reciprocator compared to the existing classical current transformer were determined to be accurate to Δ=6.1%.

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