# DEFINITION OF COMPENSATED INDUCTION MOTOR'S CIRCUIT MODEL PARAMETERS

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*The parameters of compensated induction motor circuit model considering mutual inductive coupling between phase stator semi-windings as for basic field so leakage fields were grounded.*

***Compensated induction motor, circuit model, active and inductive resistance, dispersion, mutual inductive communication.***

Basis for the calculation of descriptions of induction motor is the system of equalizations of electric equilibrium of circles of stator and rotor in a symmetric withstand mode. These equalizations express the partial case of general mathematical model of machine both for transitional and withstand processes, classic theory of electric machines made at the generally accepted suppositions at the permanent parameters of chart of substitution

For the compensated induction motors for basis the mathematical model of base asynchronous engine and methodology of her construction are taken. But the structural and functional features of КАД are taken into account. In particular at dividing of puttee of статора into two parts spatially displaced inter se the amount of equalizations of electric equilibrium of phases of статора is doubled, and including of обмоток of статора on the chart of turning autotransformer on an electric capacity increases the order of differential equalizations of electric equilibrium of phases of stator on unit.

Completer in all asynchronous electric motors cited data in literature of reference book. Parameters over of the T-type chart of substitution are brought in particular. The parameters of stator and rotor windings are thus examined, resistance of взаємоіндуктивного connection between обмотками of phases of stator and rotor at the coincidence of their axes and the main reactive impedor of phase of puttee is equal to it in the nominal mode of operations the brought motor over of series of 4А, and also value of resistances of winding at the short circuit of a motor.

However the results of calculations on the base of mathematical model of induction motor in a withstand symmetric mode result in the T-circuit of substitution, that better represents physical processes in an engine and essentially is it by a physical model. At the mathematical design of induction motor it is expedient to use the parameters of T-circuit of substitution.

In the compensated asynchronous engines the puttee of stator of base motor is divided into two consistently or multipled напівобмотки. Therefore for the calculation of descriptions of the compensated asynchronous motors it is necessary to take into account parameters not only of all stator windings, and also it separate semiwindings.

Phase stator windings of the compensated asynchronous motors appear by dividing of windings of base motor into two parts that lie in the same slots or with spatial displacement. Thus character of connections changes both between windings of different phases and between separate semiwindings within the limits of only phase puttee. For the calculation of descriptions of the compensated motors it is necessary to apply the corresponding parameters of chart of substitution.