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# Contribution de Certains Formalismes Vectoriels à la Modélisation des Machines Asynchrones n-Phasée destinées aux postes de soudage à l'arc

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**Abstract :** In this work, we express an approach contributing to the modeling of n-phase induction machine, applied in the field of electric arc welding. This approach is based on a vector formalism, whose goal is to diagonalize the matrices inductors in Hermitian and Euclidean spaces. This diagonalization allows us to decouple magnetically phases of the machine. The objective therefore is to find a simple and general mathematical model for all polyphase induction machines

**Keywords :** n-phase induction Machine, modeling, vector formalism, arc welding