

# Preface

In five chapters of the monograph *Sinusoidal Three-Phase Windings of Electric Machines*, a comprehensive description of the following material is presented: (a) general theoretical foundations of sinusoidal three-phase windings, as well as creation of these windings with the maximum and average pitch with optimized pulsating and rotating magnetomotive force, and determination of number of turns in the coils of coil groups (Chap. 1); (b) determination of electromagnetic parameters of sinusoidal three-phase windings while changing the number of pole and phase slots (number of coils in the coil group) (Chap. 2); (c) calculation of magnetic circuit slot fill factor for all four types of previously created sinusoidal three-phase windings (Chap. 3); (d) creation of technological schemes for mechanized insertion of sinusoidal three-phase windings into the slots of magnetic circuit (Chap. 4); (e) determination and comparison of electromagnetic and energy-related parameters of factory-made motor with a single-layer preformed winding and rewound motor with a three-phase sinusoidal winding (Chap. 5).

In this monograph, the author performed a comprehensive analysis of four types of sinusoidal three-phase windings, as well as the theoretical investigation of related electromagnetic parameters; this investigation was also used as a basis to complete the qualitative evaluation of electromagnetic characteristics of discussed windings. How well did he perform this task is up to the monograph readers to decide.

The monograph is dedicated to a professional book, to the specialists in the field of electrical engineering, and could be used to deepen their knowledge and apply it in practice. Material can be also used as a source of scientific information in master's and doctoral studies.

The author is fully aware that he was unable to avoid all potential inaccuracies or other flaws in this edition. A part of these inconsistencies was eliminated while consulting Lithuanian specialists of electrical engineering. Additionally, the author wishes to express his gratitude to everyone who contributed to the manuscript preparation.

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