

ALTERNATING CURRENT DESIGN

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Alternating Current Design by Julius Frith

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JULIUS FRITH

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CURRENT DESIGN**

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BY

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TO VMU
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PREFACE

LET me say at once that this book does not, and is not meant to, cover the whole of the subject suggested by its title. It is intended, for instance, to be a companion book to Mr. Cramp's "Continuous Current Machine Design," to which treatise the reader is referred for much of the ground that would otherwise have been twice traversed, as, for example, the sections on Temperature Rise and Insulation, together with nearly all the purely mechanical parts of design, including works costing.

Of the rest, I have perhaps aimed at giving that which I have not found in similar books, and particularly have I aimed at expressing it in a non-mathematical way, endeavouring to emphasize the inward physical meaning rather than the outward mathematical form, to impart ideas rather than information.

I hope the book will be useful alike to students and to those engaged in works, and I sometimes dare to hope that my brother designers will find one or two things presented in a new light which may stimulate them even whilst disagreeing.

Of those to whom I have become indebted over the compilation of this book I shall have space only to mention a few. My friend and late assistant,

Mr. R. E. Grime, comes easily first, for from his notes I have largely helped myself for material for many of the chapters.

The idea of the price curves for cables is taken from a paper by Mr. H. A. Earle, and the idea of sodium as a conductor from Betts. The costs of most of the more usual metals in Chapter XI. were obtained for me by Messrs. Carrick & Brockbank of this city, and those of the rarer metals by Messrs. Johnson Matthey of London.

I shall at any time be pleased to receive, and if possible to answer, letters of suggestion, criticism or correction.

JULIUS FRITH.

THE HOMESTEAD,
VICTORIA PARK, MANCHESTER,
November, 1911.

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