

Recommended Design Criteria for Decoding Transformer, Dry-Type, Air-Cooled
Revised 2023 (2 Pages)

A. Purpose

This Manual Part recommends design criteria for a dry indoor type of decoding transformer, air-cooled, to connect between the contacts on the code-following relay and the dc decoding signal control relays to convert dc impulses at the code frequency rates into a non-sinusoidal ac output.

B. Design

1. Transformer should be designed for indoor service.
2. Transformer should be designed for wall and shelf mounting.
3. Transformer shall be designed to handle the code rates specified.
4. Typical value for input voltage is 10 Vdc and for frequency 1.25/3 Hz.
5. Transformer shall conform to Manual Part 14.2.10 Recommended Design Criteria for Transformer, Dry-Type, Air-Cooled as applicable.

C. Binding Posts

Binding posts shall conform to Manual Part 14.1.10 Recommended Design Criteria for Binding Posts.

D. Coil Insulation

Winding insulation shall conform to Manual Part 15.2.4 Recommended Selection and Application Criteria of Insulating Materials Used in Coils for Magnetic Assemblies and in Other Electrical Devices.

E. Dielectric Requirements

Dielectric requirements shall conform to Manual Part 15.2.5 Recommended Dielectric Requirements for the Design and Installation of Electrical Equipment and Other Electrical Devices.

F. Identification

1. A nameplate should be securely fastened to each transformer and should give the following information:

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- a. Manufacturer's name.
 - b. Type.
 - c. Frequency range.
 - d. DC primary voltage.
 - e. Serial number.
 - f. Manufacturer's drawing or other reference number.
2. Information showing the arrangement of the windings, the binding posts to which windings are connected and the markings identifying the binding posts, should be shown by a diagram on a card or tag attached to each transformer.

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