

RETMA RS-180

RETMA STANDARD

*Power Transformers for
Electronic Equipment*

RS-180
(Revision of TR-102-B)



April 1957

Engineering Department
RADIO-ELECTRONICS-TELEVISION MANUFACTURERS ASSOCIATION

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POWER TRANSFORMERS FOR ELECTRONIC EQUIPMENT

(From Standard TR-102-B and Standards Proposal No. 510 formulated under the cognizance of the RETMA Engineering Committee SQ-4 on Transformers and Inductors)

1. SCOPE

This specification covers iron core, power transformers up to 10 KVA for use in electronic equipment where long life, reliability and continuity of operation is essential.

2. DEFINITIONS

Definitions of electrical terms used in this specification shall be in accordance with those given in "American Standard Definitions of Electrical Terms," ASA No. C42-1941, except as otherwise noted.

The "RMS working voltage" between any winding and any other winding or ground shall be defined as 0.707 times the sum of the maximum d-c voltage and the peak a-c voltage which may appear between that winding and the other winding or ground under normal conditions of continuous operation.

3. PURCHASE SPECIFICATIONS

The purchaser shall furnish information on the following subjects:

- NOTES: (1) Receiver transformers are normally covered by RETMA Standards REC-119 and REC-120.
(2) Transformers larger than 10KVA are covered by ASA C-57.1.

3.1 Frequency or Frequency Range of Power Supply

3.2 Primary RMS Voltage or Voltages

3.2.1 Standard voltages are 115, 230 and 460 volts.

3.2.2 See 5.1.2 (f) for normal permissible overvoltage. Any more severe requirements shall be specified.

3.2.3 If taps are required, they shall be specified. Recommended taps are 105, 115, 125 or 210, 230, 250.

3.3 For Each Secondary Winding:

3.3.1 RMS load voltage and current (except for rectifier supply windings).

(a) For each rectifier supply winding.

1. Type of rectifier and rectifier circuit.
2. DC current into the filter.
3. DC load voltage at the filter input or RMS load voltage of the winding.
4. Constants of at least the first section of the filter.

3.3.2 Center tap and D. C. current in center tap, if required.

NOTE: Standard current ratings are: 1.0, 1.6, 2.5, 4.0, 6.3 amperes and decimal multiples of these values.

3.3.3 RMS working voltages with respect to other windings and ground.

NOTE: Whenever possible, DC voltages at the filter output should be chosen from the list of standard voltages in 9.

3.3.4 Electrostatic shielding, if required.

3.3.5 Regulation requirements, if any, including short circuit current limitations, in-rush currents, exciting current, and surge voltage.

3.4 Unusual Efficiency Requirements

3.5 Unusual Requirements as to External Magnetic Fields

3.6 Construction Features: