

TRADE AND COMMERCE  
CANADA

## STANDARDS DIVISION

OTTAWA, July 18, 1952.

MODIFICATION OF TYPE APPROVALWESTINGHOUSE TYPES "CA" and "CS-1" COMBINATION  
2-WIRE/3-WIRE WATTHOUR METERS

The modification to the apparatus specified herein has been duly approved by the Standards Division under the provisions of The Electricity Inspection Act, Chapter 22, 1928, as amended, and the modified apparatus may be admitted to verification in Canada.

Apparatus Modified: Types "CA" and "CS-1" Watthour Meters, manufactured by the Canadian Westinghouse Company Limited, Hamilton, Ontario.

Rating of Apparatus: Rated Amperes ..... 15 and 25  
 Maximum Amperes ..... 60 and 100  
 K<sub>h</sub> ..... 2 and 3-1/3  
 Voltage ..... 115/230  
 Frequency ..... 60 cycles.

Description: These meters are modifications of the standard 60-cycle meters and are designed to provide for installations where a future change from 2-wire to 3-wire service is expected. The potential coils on the meters have two windings. These windings are in parallel when connected for 2-wire service and in series for 3-wire service so that the voltage characteristics of the meter are essentially unchanged on  $\frac{1}{2}$  voltage. When connected for 2-wire service only, one half of the 3-wire current winding is connected into the circuit. A jumper is used to complete the circuit through the meter the same as in the standard 2-wire meter. To re-connect for 3-wire service the jumper is removed, the free end of the current winding connected and the potential coils re-connected from parallel to series. The full load speed of the meters is 12 $\frac{1}{2}$  r.p.m. when connected for 2-wire service and 25 r.p.m. on the 3-wire connection; thus the same register may be used for both connections.

The meters are furnished with two nameplates, one on top of the other, with the same serial number on each. When the meter is converted to 3-wire, the top 2-wire nameplate is discarded.

Application: The application for such meters is where existing 2-wire services are expected to be temporary. Approval covers conversion from 2-wire to 3-wire, but not the reverse.

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Ref: A-271

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