

## STANDARDS DIVISION

OTTAWA. May 25, 1956.

## TYPE APPPOVAL

## LANDIS & GYR TYPE "FFP-7" POLYPHASE WATTHOUR METER

The apparatus specified and illustrated herein has been duly approved by the Standards Division under the provisions of the Electricity Inspection Act, Chapter 94, R.S. 1952, and may be admitted to verification in Canada.

Apparatus Approved: Type "FFP-7" 2-Element Polyphase Jatthour Neter, manufactured by Landis & Cyr, Zug, Switzerland, and distributed in Canada by D. M. Fraser Limited, 1070 Birchmount Road, Toronto 16, Ontario.

Rating of Apparatus:

 Nominal Amperes
 5

 Maximum Amperes
 12.5

 Voltage
 115

 Wire
 3

 Elements
 2

 Watthour Constant
 1.0 watthour per rev.

 Frequency
 50 & 60 cycles

Description: The type "FFP-7" watthour meter is described by the manufacturer as a precision type intended for the accurate measurement of large loads in conjunction with instrument transformers. The meter is approved for use with clock-type register only. The distinctive features of the meter are:-

- (1) Brake Magnets There are two separate magnets per disc, thus four per meter. They are of high coercive strength nickel cobalt steel designed to make the meter practically insensitive to short circuits.
- (2) <u>Rearings</u> The lower bearing pressure is reduced to a negligible value by a magnetic suspension of the rotor. This, together with the fact that the rotor itself is very light, makes the frictional losses in the bearing a minimum and this reacts favourably on the light load performance.
- (3) Temperature Compensation This consists of two different and independent devices:
  - (a) The Class I temperature compensator acts on the flux of the brake magnet by means of a shunt of special alloy, the permeability of which varies with temperature.
  - (b) The Class II temperature compensator controls the phase of the magnetic field of the voltage coil.

A device for locking the disc, for protection during shipment, is affixed to the meter cover. This device may be sealed by means of a <u>company</u> seal.

R. W. MacLean, Director, Standards Division.

Ref: A-506

E. F. Power,

Assistant Director (E&G), Standards Division.

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