SD-EA.49

CANADA

DEPARTMENT OF TRADE AND COMMERCE

STANDARDS DIVISION

OTTAWA, November 14, 1950.

NOTIFICATION OF TYPE APPROVAL

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

Apparatus Approved: Single-phase Watthour Meters in the following type designations, manufactured by Measurement Limited and submitted for approval by Parkinson & Cowan Group Exports Limited, London, England:

"ZE2A" - 2-wire meter with "A" base
"ZE3A" - 3-wire meter with "A" base
"ZE2S" - 2-wire meter with "S" base
"ZE3S" - 3-wire meter with "S" base
"ZF2C" - 2-wire meter with "Manitoba" case
"ZF3C" - 3-wire meter with "Manitoba" case.

Rating of Apparatus:

Amperes ..... $2\frac{1}{2}$, 5, 10, 15, 25, 50, 100
Volts 115, 230
Wire ..... 2 and 3
Frequency ..... 60 cycles
Basic Kh ..... 0.5 (for 5-amp., 115-volt meter).

Description: In these meters the potential magnet and series magnet are separate elements secured to a machined cast-iron frame which carries the rotor, bearings and brake magnet system. The "ZE" types are mounted in either "A" or "S" bases, which is indicated by the appropriate suffix. The "ZF" types have a pressed metal case, termed a "Manitoba" case.

Adjustments: The full load adjustment is unique. Two "U"-shaped magnets are mounted on vertical axes so that the disc passes between their poles in the usual manner. By means of a toothed quadrant which engages the worm of the full load adjustment knob, the magnets may be rotated on their axes and the poles thus moved nearer or farther from the center of the disc. A large range of adjustment is possible.

The light load adjustment is by means of a steel block on the lower side of the disc, co-acting with an extended tongue piece on the center pole of the potential magnet. The block is traversed along a machined face on the frame casting by means of a screwed rod with knurled head.

Power factor adjustment is by the variable resistance method and operates on the shunt element. A heavily silver-plated copper loop around the center pole has extended resistance arms over which brass contacts are moved and clamped into position to obtain the desired degree of quadrature correction.

Registers: Approval covers the use of either clock-type or cyclometer-type registers. The cyclometer-type register employs light-weight polystyrene rollers and pinions.

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MEASUREMENT LIMITED TYPE "ZF20" WATTHOUR METER