

TRADE AND COMMERCE
CANADA

SD-EA.206

STANDARDS DIVISION

OTTAWA, August 29, 1955.

TYPE APPROVALFERRANTI TYPE "FTA" SINGLE-PHASE COMBINATION
THERMAL DEMAND WATTHOUR METER

The apparatus specified 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 "FTA" Single-Phase Combination Thermal Demand Watthour Meter, manufactured by the Ferranti Electric Limited, Toronto, Ontario.

Rating of Apparatus:

Nominal Amperes	5	5	10	10	15
Maximum Amperes	10	10	20	20	45
Volts	115 or 120	230 or 240	115 or 120	230 or 240	230 or 240
Wire	2	2 and 3	2	3	3
Test Period (in minutes) ..	32	32	32	32	32
Phase	1	1	1	1	1
Frequency	60 cycles	60 cycles	60 cycles	60 cycles	60 cycles.

Description: The principal part of the demand unit consists of a matched pair of bimetal spirals mounted in opposition on a common spindle. Secured to this spindle is an indicator pointer which drives a silicone fluid damped demand pointer over a calibrated dial. Two heaters actuate each bimetal spiral. Each bimetal spiral and a pair of heaters are assembled in separate plastic boxes. The plastic boxes, which act as heat storage, are secured to a die-cast frame which is designed so that the conduction losses from the boxes are equal. The plastic boxes are enclosed in metal covers whose purpose is to even out temperature gradients which exist inside the meter enclosure when on load. A spiral spring attached to the spindle serves as a zero adjustment. A helical expansion spring controlled tangentially by a bimetal helix provides adequate full scale adjustment and ambient temperature compensation. The watthour section is the standard Ferranti type "FM" meter.

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