

TRADE AND COMMERCE
CANADA

STANDARDS BRANCH

S-EA.550

OTTAWA June 7, 1962.

TYPE APPROVALLANDIS & GYR TYPE "FF8 ϕ "
2-ELEMENT POLYPHASE REACTIVE ENERGY METER

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

Apparatus Approved: Type "FF8 ϕ " 2-Element Polyphase Reactive Energy Meter, manufactured by Landis & Gyr, Zug, Switzerland, and distributed in Canada by Landis & Gyr, Inc., 725 Decarie Blvd., Montreal 9, P. Q.

Rating of Apparatus:

Current Range	0.12-10 amperes
Voltage	115 volts
Phase	3
Wire	3
Elements	2
Frequency	60 cycles
Power Factor Range	1.0 to zero (lagging)

Description: This meter is designed to record the reactive energy in a circuit without the use of the usual phasing transformers, and is thus independent of voltage unbalance or phase rotation. To obtain a phase displacement of 180° between the voltage and current fluxes, a non-inductive resistance is connected in parallel with the current coil, and a special voltage coil is used which has a tap in the winding to which a fixed resistance is connected and joined to an adjustable resistance connected to the end of the voltage coil. The ends of these two resistances are joined to a third resistance taken to the second voltage terminal. Because of the 180° phase relationship between the current and voltage fluxes, the disc rotates at its maximum speed at zero power factor and stops at unity power factor. The reactive energy in a circuit is given by the formula $KVA_r = E.I. \sin \theta$ so that at 0.5 power factor the reactive energy meter runs at .866 x maximum speed and at .866 power factor it runs at half speed. This approval covers the use of any suitable approved attachment(s), the installation of which will appear in the type designation, e.g., FF8 ϕ hr4, meaning a type 'FF8 ϕ ' having a reverse running stop 'h' and transmitting contacts 'r4'. As the usual methods of field testing these meters are not applicable, special instructions will be sent out from headquarters to the District Inspectors concerned.

E. F. Power

E. F. Power,
Chief, Electricity & Gas Division,
Standards Branch.

R. W. MacLean
R. W. MacLean,
Director,
Standards Branch.

Ref: A-775

LANDIS & GYR TYPE "FF8 ϕ "
2-ELEMENT POLYPHASE REACTIVE ENERGY METER

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