



Department of consumer and corporate affairs / Ministère de la consommation et des corporations



STANDARDS BRANCH - DIRECTION DES NORMES

NOTICE OF APPROVAL

T - 55

OTTAWA December 1, 1970.

MOLONEY TYPES "MU-50-1", "MU-87-1", "MU-150-1", "MU-50", "MU-87", "MU-150", "PMU-50", "PMU-87" and "PMU-150" METERING UNITS

Primary Voltages

	<u>MU-50-1</u>	<u>MU-87-1</u>	<u>MU-150-1</u>
Single Phase Units	2400/4160Y	4200/7380Y 4800/8320Y	7200/12470Y 8400/14560Y
	<u>MU-50</u> <u>PMU-50</u>	<u>MU-87</u> <u>PMU-87</u>	<u>MU-150</u> <u>PMU-150</u> ①
3 Phase 3 Wire Units	2400,4200,4800	7200,8400	12000,13800,14400
3 Phase 4 Wire Y Units	2400/4160Y	4200/7280Y 4800/8320Y	7200/12470Y 8400/14560Y

Secondary Voltage (all types) 120 volts, 115 volts^①

Primary Currents (all types) 10/5, 20/10, 30/15, 40/20, 50/25, 100/50, 150/75, 200/100, 300/150, 400/200, 500/250, 600/300, 800/400 amperes

Secondary Current (all types) 5 amperes

Accuracy Rating at 60hz

Voltage Transformers (all types) 0.3WXYZ^②

Current Transformers (all types) 0.3B0.1, B0.2, B0.5, B0.9, B1.0, B1.8^③, B2.0

Frequency 60hz

R.F. (rating factor) 1.5 (current transformers)^④

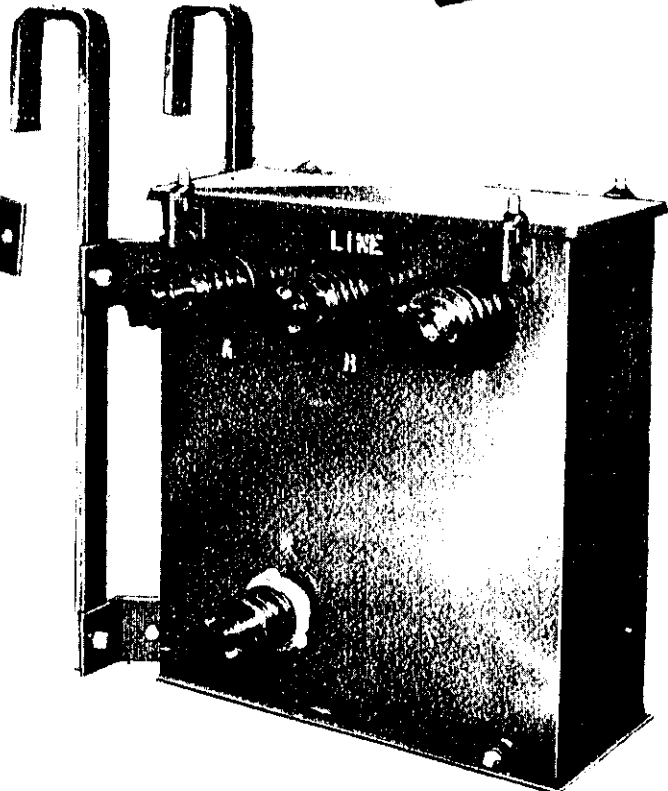
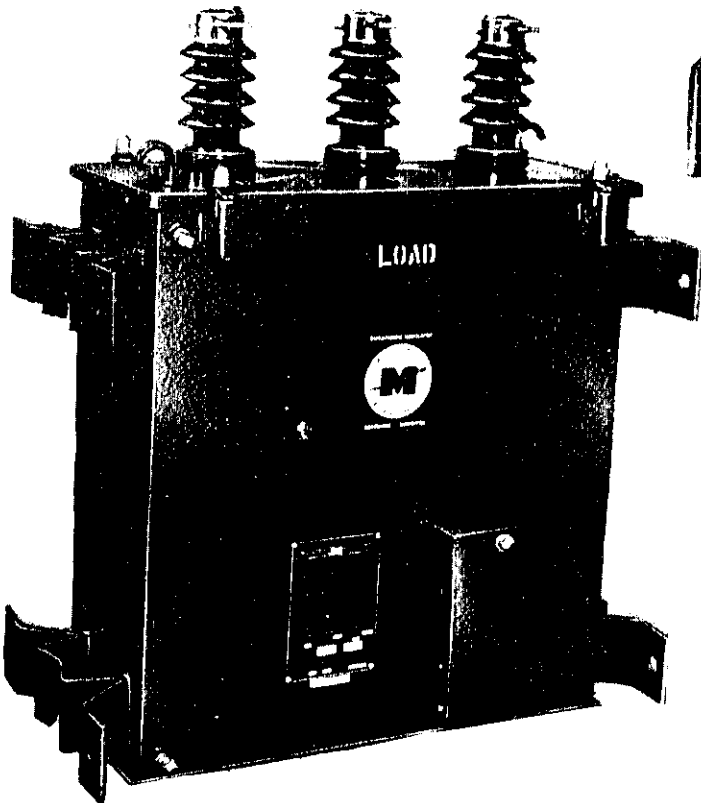
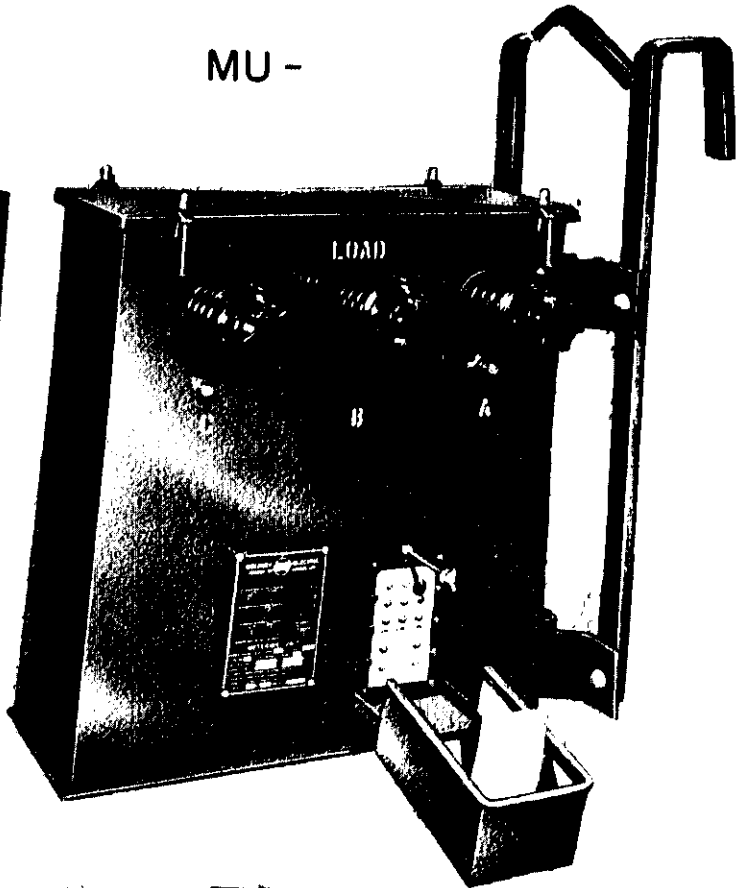
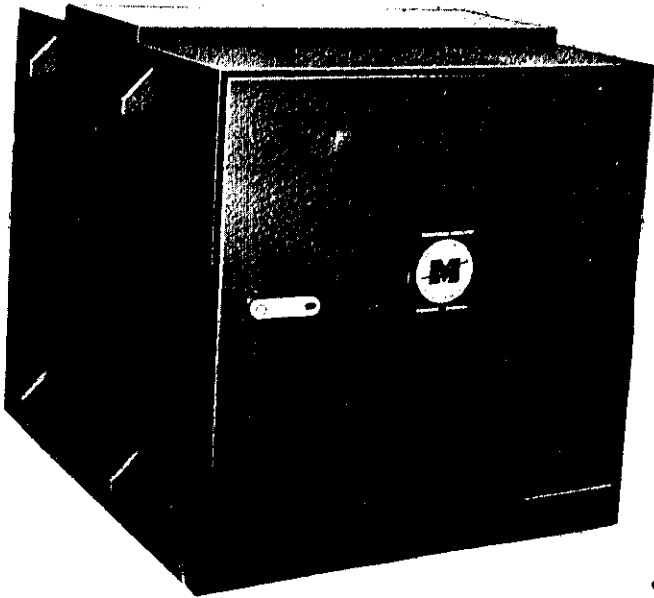
Style Oil insulated.

1. The 115 volt secondary appears only in conjunction with the 13800 volt primary.
2. The nameplates are marked 0.3WXYZ.
3. The accuracy rating marked on the nameplate may be either 0.3B(2x0.9) or 0.3B1.8.
4. The nameplates are marked "current transformer rating factor 150%.

MOLONEY TYPES "MU-50-1", "MU-87-1", "MU-150-1", "MU-87", "MU-150" "MU-50", "PMU-50", "PMU-87" and "PMU-150" METERING UNITS

PMU -

MU -



MU -

MU -

Description

These metering units have been developed co-operatively between Moloney Electric Company of Canada Limited and Sangamo Company Limited and may be marketed through either organization. Consequently these units may be encountered with either a Moloney Electric Company nameplate or a Sangamo Company nameplate. In either case the units will be identical.

All these transformers are mounted in oil-filled tanks, the single phase units are cylindrical and the polyphase units are rectangular.

The single phase units are designed for line-to-ground operation and have the high voltage bushings mounted on the top of the tank and the neutral bushing on the side.

Polyphase units have six high voltage bushings and, in the case of 3 phase 4 wire Y units, a smaller neutral bushing. These high voltage bushings may be mounted on the top and one side, on opposite sides, or all on the same side for pad mounted metering units type "PMU--".

Cover mounted bushings on transformers up to 400 ampere rating are of the double conductor type so that only one bushing per phase is needed.

Single phase units contain a single voltage transformer and a single current transformer. 3-phase 3 wire units contain two current and two voltage transformers and transformers for use on 3 phase 4 wire wye circuits contain 3 current transformers and 2 or 3 voltage transformers.

The double ratio from the current transformers is obtained by means of a tap on the secondary windings.

A diagram on the nameplate indicates the connections from the various secondary windings to the terminal block and the respective terminals.

Polarity is indicated by a "+" adjacent to the terminal of the current and voltage transformer secondary that has the same polarity as the corresponding "line" terminal.

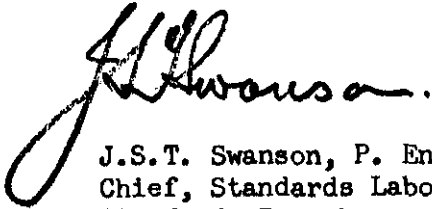
Current transformer secondary terminals are numbered "1", "2", and "3". "1" is common and polarity, the low ratio is available from "1" and "2" and the high ratio from terminals "1" and "3".

Transformers subsequent to serial number 254910 are all built with 15 kv insulation although some may be marked for lower voltages depending upon the voltage transformer ratio.

This circular is a consolidation of circulars S-EA.508 (amended) S-EA.532 (amended) and S-EA.595 (amended) and includes PMU-- units and advises of a change in the insulation.

Approval granted to:

Moloney Electric Company of Canada Ltd.,
and Sangamo Company Limited,
Toronto, Ontario.



J.S.T. Swanson, P. Eng.,
Chief, Standards Laboratory,
Standards Branch.



W.J.S. Fraser,
Chief, Electricity & Gas Division,
Standards Branch.

Ref: SL-100-880 (1)
SE-85-76