



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

STANDARDS BRANCH - DIRECTION DES NORMES

NOTICE OF APPROVAL

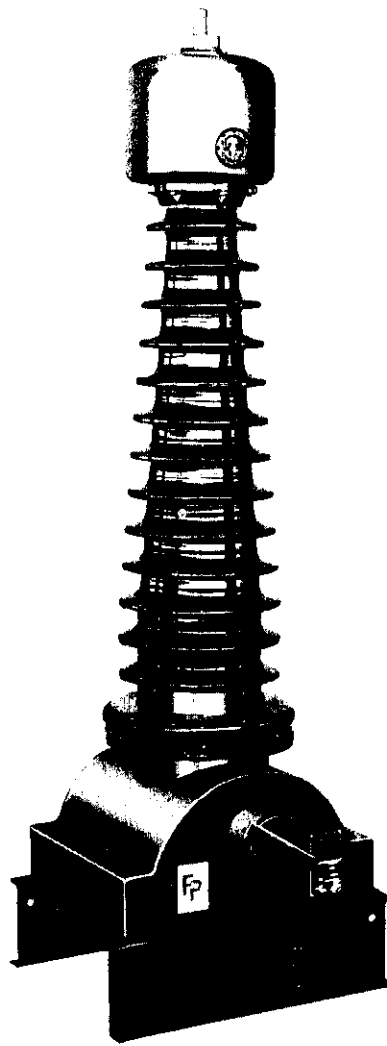
T - 78

OTTAWA March 28, 1972

FERRANTI-PACKARD TYPES "MG-115" and "MG-138"
VOLTAGE TRANSFORMERS



Type	System Voltage	Primary Voltage	Secondary Volts	Ratio
MG-115	115000 Grd Y	69000	115/69-115/69	600/1000:1:1
MG-138	115000 Grd Y	69000	69-69	1000:1:1
MG-138	138000 Grd Y	80500	115/67.08-115/67.08	700/1200:1:1
Number of Secondaries		2, tapped or untapped		
Accuracy Rating at 60Hz		0.3WXYZ, ZZ*, 0.3Z-0.3Z		
Frequency		60 Hz		
Secondary Terminals				
Single Ratio		X1-X2, Y1-Y2		
Low Ratio of Dual Ratio		X1-X3, Y1-Y3		
High Ratio of Dual Ratio		X2-X3, Y2-Y3		
Voltage Class				
MG-115		115 kv		
MG-138		138 kv		
BIL (basic impulse level)				
MG-115		550 kv		
MG-138		650 kv		
Style		Post type, oil insulated, outdoor		

- * The nameplates are marked 0.3WXYZ, ZZ.
The accuracy rating is 0.3WXYZ, ZZ on either the full winding or the tap and applies to the secondary winding when the tertiary winding is not loaded, to the tertiary winding when the secondary winding is not loaded, and to both windings when the designated burden is divided in any proportion between them; and 0.3Z-0.3Z on either the full winding or the tap applies to the secondary winding when the tertiary winding is loaded with Z burden or vice versa.



Types MG-115 and MG-138

May also be supplied with rectangular tank

FERRANTI  PACKARD LIMITED							
<small>ST. CATHARINES, ONTARIO</small>							
VOLTAGE TRANSFORMER							
HERMETICALLY SEALED							
PERIODIC INSPECTION ONLY OF OIL IS REQUIRED							
							
	<table border="1"> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">X2 - X3 : Y2 - Y3</td> </tr> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">X1 - X3 : Y1 - Y3</td> </tr> <tr> <td style="width: 50%;">SEC'Y. VOLTAGE</td> <td style="width: 50%; text-align: center;">CONNECT</td> </tr> </table>		X2 - X3 : Y2 - Y3		X1 - X3 : Y1 - Y3	SEC'Y. VOLTAGE	CONNECT
	X2 - X3 : Y2 - Y3						
	X1 - X3 : Y1 - Y3						
SEC'Y. VOLTAGE	CONNECT						
ACCURACY = 0-3W, 0-3X, 0-3Y, 0-3Z & 0-3ZZ 55°C. THERMAL <input type="text"/> KV = <input type="text"/> VA. <input type="text"/> VA. ON EACH SECONDARY.							
NOTE - THESE TRANSFORMERS ARE DESIGNED TO OPERATE ON A SYSTEM HAVING NOMINAL LINE TO NEUTRAL VOLTAGE OF <input type="text"/> KV. AS SUCH, THEY MAY UNDER FAULT CONDITIONS, HAVE FULL LINE VOLTAGE IMPRESSED UPON THEM AND THEY ARE THEREFORE DESIGNED FOR FULL LINE VOLTAGE OF <input type="text"/> KV.							
TYPE NO <input type="text"/> 60 CYC., D.I.S.C. 55°C. RISE							
PRIMARY	<input type="text"/> VOLTS						
SECONDARY	<input type="text"/> VOLTS						
NOMINAL RATIO <input type="text"/>							
INSUL. CLASS	<input type="text"/> F.W. IMP. LEVEL <input type="text"/>						
GALS. OIL	TOTAL WT. <input type="text"/>						
A.F.	% SER. NO. <input type="text"/>						
DATA SHEET	<input type="text"/> E-42101						

DESCRIPTION

The types MGL15 and MGL38 voltage transformers are designed for use in outdoor substations in billing metering and relaying applications.

The core is constructed from grain-oriented steel and the windings are insulated with oil-impregnated paper.

The primary winding consists of a multi-layer coil with graded insulation with the outer layer connected to a split static shield.

The core and coil assembly is dried under vacuum and installed in a heavy gauge form-fitting or rectangular oil-filled tank.

One primary lead is taken out through a 5kv bushing and grounded to the tank wall externally. The other primary lead extends upwards into a porcelain housing which serves as a high voltage bushing.

The bushings are the same size on both the types MGL15 and MGL38, the difference between the two types is the amount of internal coil insulation.

An anodized aluminum dome is bolted to the top of the porcelain bushing. This accommodates the primary terminal and provides a chamber for oil expansion.

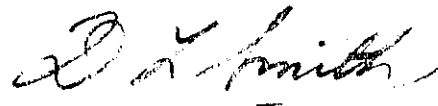
The secondary leads are crimped to studs sealed in a 'glastic' plate; they are provided with solderless connectors and are mounted inside a terminal box near the bottom of the tank.

The primary terminal at the top of the dome is identified as "H1" and the secondary terminals are identified as "X1", "X2", "Y1", "Y2" or "X1", "X2", "X3", "Y1", "Y2", "Y3" according to the secondaries being untapped or tapped.

In all cases the secondary terminal of the pair with the lower suffix has the same polarity as the primary terminal "H1".

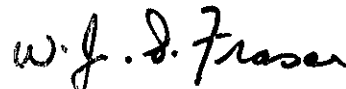
A schematic diagram on the nameplate further identifies the terminals.

Approval granted to:



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