



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



STANDARDS BRANCH - DIRECTION DES NORMES

NOTICE OF APPROVAL

T-40-2

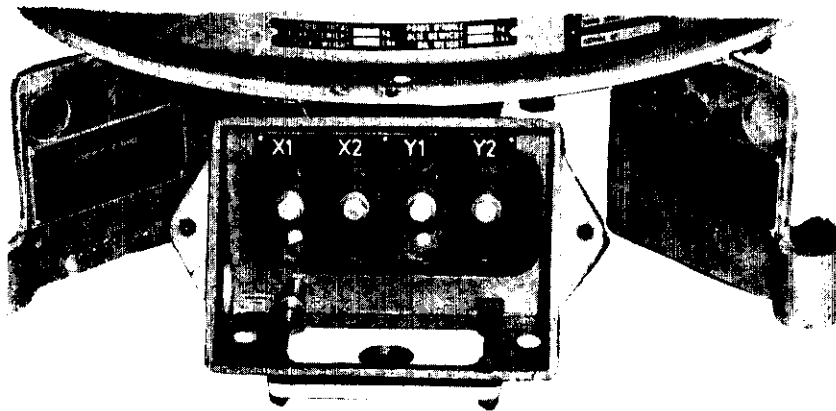
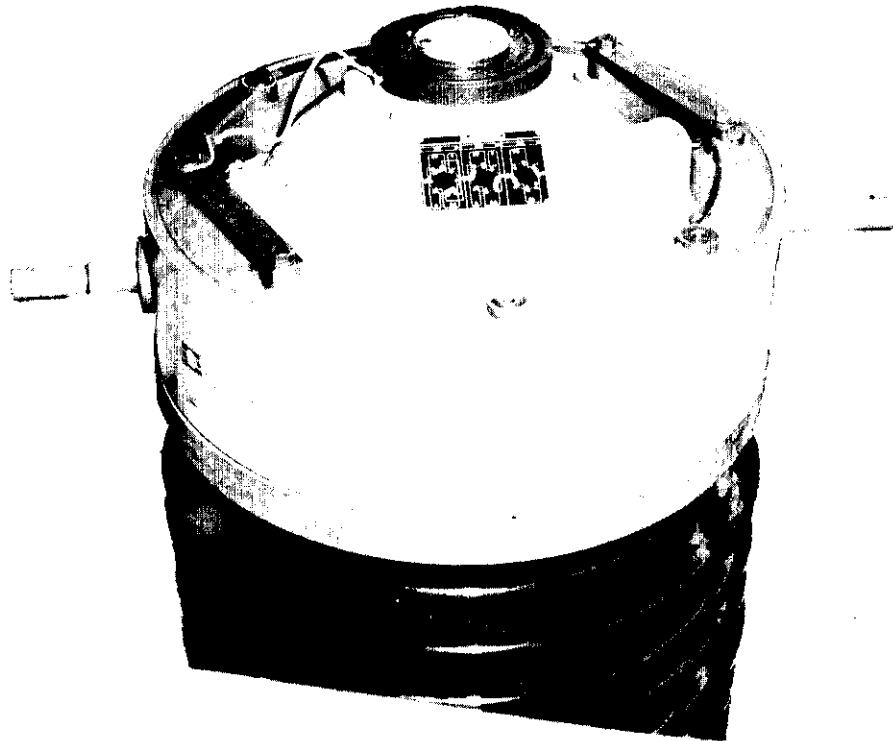
OTTAWA March 2, 1970.

USINES BALTEAU TYPES "SAV(1)", "SAX(1)", "SEV(1)", "SEX(1)" AND
"SEZ(1)" CURRENT TRANSFORMERS

Primary Currents	
Single Ratio	10,15,25,40,50,75,100,150,200,300,400,600, 800,1000,1200,1500,2000 and 3000 amperes
Double Ratio ^②	25x50, 50x100, 75x150, 100x200, 150x300, 200x400, 300x600, 400x800, 500x1000, 600x1200, 800x1600, 1000x2000, 1200x2400 and 1500x3000 amperes
Triple Ratio ^②	25x50x100, 50x100x200, 75x150x300, 100x200x400, 150x300x600, 200x400x800, 300x600x1200, 400x800x1600, 500x1000x2000 and 600x1200x2400 amperes
Secondary Current	5 amperes, each secondary
Number of Secondaries	1 or 2, independent untapped
Accuracy Rating at 60hz ^③	0.3B0.1, B0.2, B0.5, B0.9, B1.0, B1.8, B2.0
Voltage Rating ^①	69kv, 115kv, 138kv, 161kv and 230kv
Frequency	60hz
R.F. (rating factor) ^④	2.0 for transformers with max. current rating of 1500 amperes or less 1.5 for transformers with max. current rating from 1600 to 3000 amperes
Wire	2, single phase
Style	Post type, outdoor, oil filled, hermetically sealed

(1) 69kv	types	SEV70, SEX70
115kv	types	SEV110, SEX110, SAV123, SAX123
138kv	types	SEV138, SEX138, SAV145, SAX145
161kv	types	SEV150, SEX150, SAX170, SEZ150
230kv	types	SEX220, SAX245, SEZ220

USINES BALTEAU TYPES "SAV(1)", "SAX(1)", "SEV(1)", "SEX(1)" AND "SEZ(1)"
CURRENT TRANSFORMERS



- (2) The double and triple ratios are obtained by re-connection of the primary windings.
- (3) The accuracy rating marked on the nameplates is 0.3B2,0.
- (4) Rating factors listed apply to all the ratios of transformers with more than 1 ratio.

Transformers may be marked with rating factors less than that approved, i.e. transformers approved for R.F. = 2.0 may be marked R.F. = 1.5, R.F. = 1.33 or R.F. = 1.0 according to customers requirements.

Description

The types of current transformers covered by this circular are post type, hermetically sealed, oil insulated for use on high voltage circuits.

A diaphragm on the top of the transformer under the hood takes care of changes in the oil volume due to changes in the oil temperature while maintaining the hermetic seal. An indicator attached to the top of the transformer indicates the position of the diaphragm.

The primary connections are made to bars marked "H1" and "H2" extending diametrically through insulating bushings at the top of the transformer.

A transformer may be constructed with 1, 2 or 4 sets of primary windings. Those with a single primary are single ratio, those with two sets are double ratio with ratios in the order 1:2, and those with four sets of primary windings have triple ratios in the order 1:2:4.

Transformers with 2 or 4 sets of primary windings are provided with links (by means of which the primary windings may be connected in series/parallel or series/multiple) for series or multiple connections.

These links are located on top under the cover of transformers type SEV, SEX and SEZ.

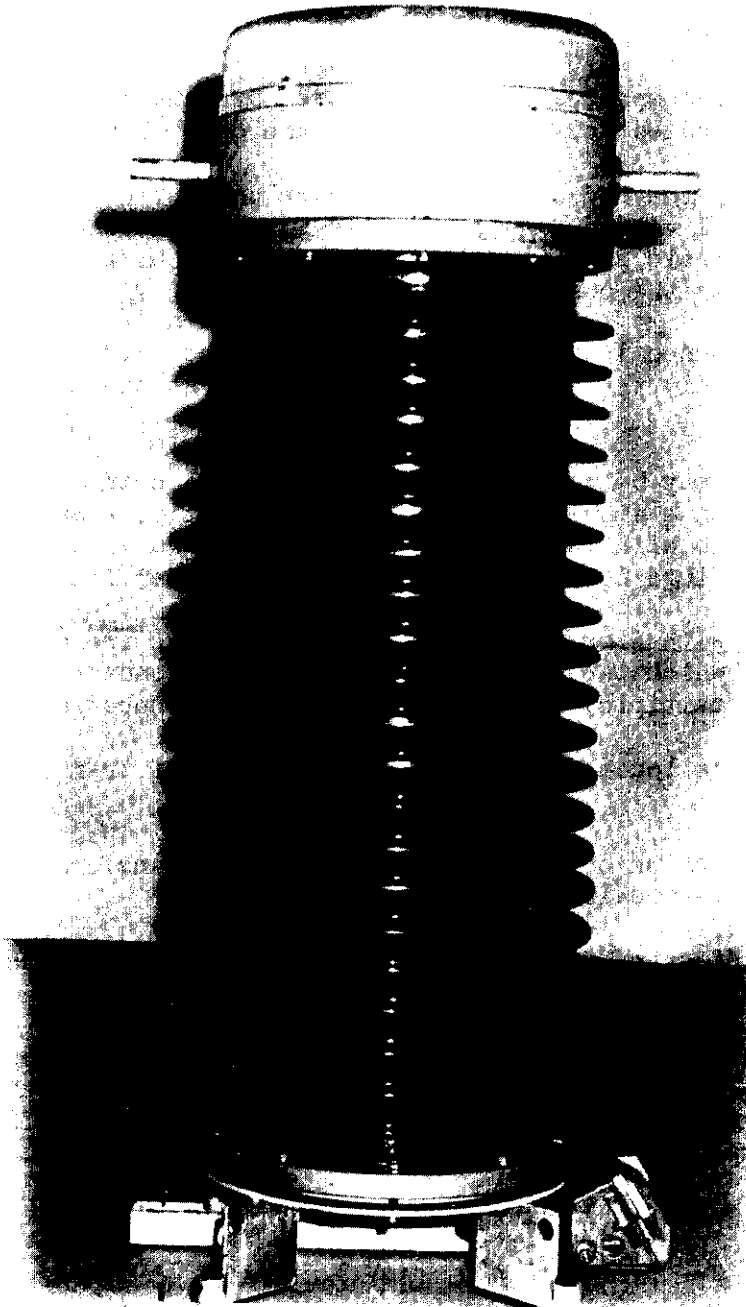
They are located on both sides of the head of transformers type SAV and SAX around terminals H1 and H2.

An adjacent diagram at the top of the transformer indicates the position of the links in order to obtain the desired ratio.

A transformer may be supplied with 1 or 2 identical untapped secondary windings, the ends of which are brought out to a terminal block at the base to terminals marked "X1", "X2"; or "X1", "X2", "Y1", "Y2" if there are two secondaries.

"X1" and "Y1" have the same polarity as "H1".

USINES BALTEAU TYPES "SAV(1)", "SAX(1)", "SEV(1)", "SEX(1)" AND
"SEZ(1)" CURRENT TRANSFORMERS



The body of the transformer is a ribbed porcelain bushing with a long leakage path and length depending upon the voltage rating. Apart from this all the types covered by this approval are essentially identical in electrical characteristics.

The magnetic circuits are constructed in the form of rings manufactured either from grain-oriented sheet steel (Hipersil) or nickel alloy (Mumetal).

The assembly comprising the main working parts of the transformer is moulded into Epoxy resin so as to provide a single compact block which is mounted in the head of the transformer thus eliminating the need for long primary connections.

As each secondary is wound on a separate core, if only one is used, the other should be short-circuited.


The illustrations on the back of pages 1 and 3 show a type SEXL38 with double secondary. The illustration on the back of page 5 shows a cut-away view of the internal construction of type SEV, SEX or SEZ.

This circular is a re-issue of circular T-40-1 to include additional ratios and voltage ratings.

Approval granted to:

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USINES BALTEAU TYPES "SAV(1)", "SAX(1)", "SEV(1)", "SEX(1)" AND
"SEZ(1)" CURRENT TRANSFORMERS

hermetic

Balteau

Current transformers.

1. Aluminium hood.
2. Diaphragm allowing thermal expansion of oil.
3. Primary terminals in bronze.
4. Reconnectable primary winding.
5. Core(s) and secondary winding(s).
6. Main parts moulded in epoxy resin.
7. Metallic shell enclosing the core(s) with HV insulation, oil impregnated paper.
8. Long creepage distance porcelain.
9. Hot galvanised steel base.
10. Porcelain clamping device.
11. Aluminium moulded terminal box with secondary terminals in epoxy resin casting.
12. Fixing legs and lifting holes.

