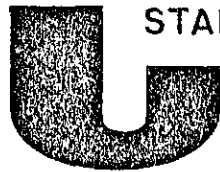




Department of consumer and corporate affairs / Ministère de la consommation et des corporations



STANDARDS BRANCH - DIRECTION DES NORMES

NOTICE OF APPROVAL

E - 93

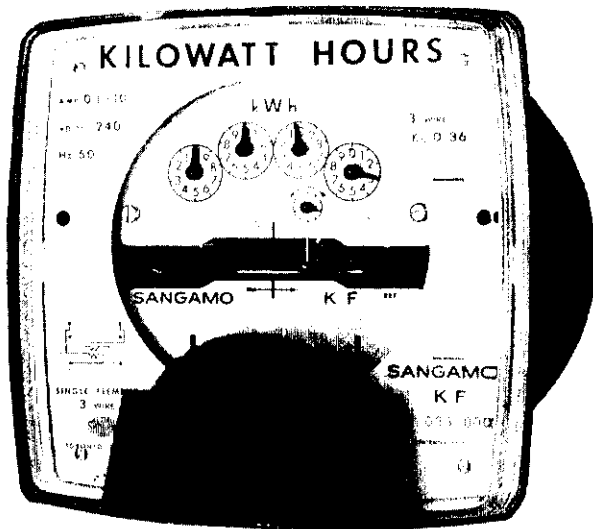
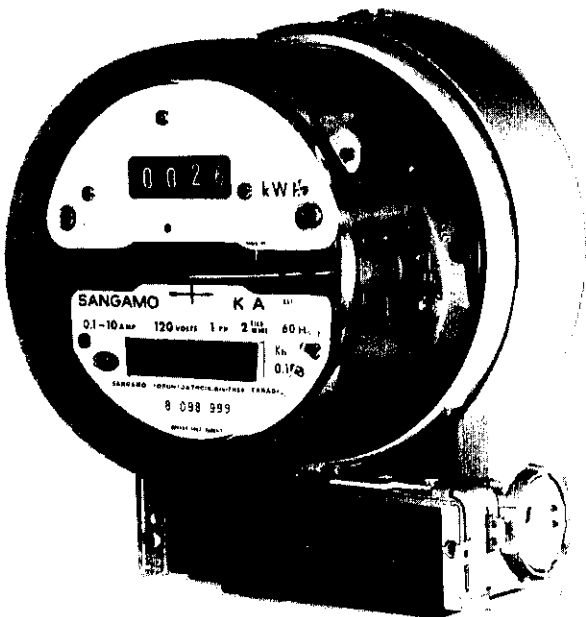
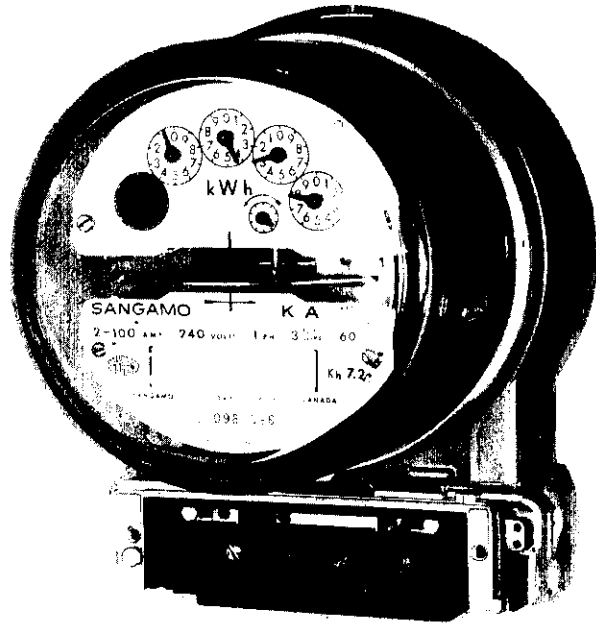
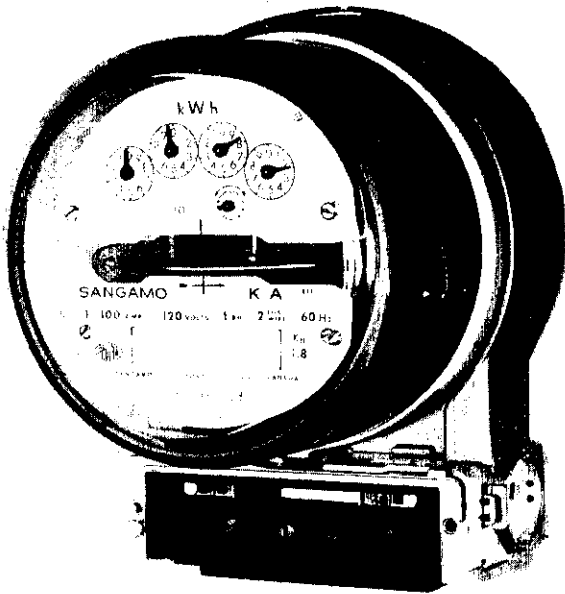
OTTAWA October 7, 1970.

SANGAMO TYPES "KA", "KS" and "KF" SINGLE PHASE WATTHOUR METERS

Current Range (amperes)	Voltage	Wire	Disc Constant (kh)	Register Ratio (Rr) Clock Type (Cyclometer Type)		
				4-dial x 1 (4-drum x 1)	4-dial x 10 (4-drum x 10)	5-dial x 1 (5-drum x 1)
0.1-10 <sup>①</sup>	120	2	0.18	555-5/9 (1111-1/9)	-	555-5/9 (1111-1/9)
	240	2 and 3	0.36	277-7/9 (555-5/9)	-	277-7/9 (555-5/9)
	345	2	0.54	185-5/27 (370-10/27)	-	185-5/27 (370-10/27)
1-100	120	2	1.8	55-5/9 (111-1/9)	555-5/9 (1111-1/9)	55-5/9 (111-1/9)
	240	3	3.6	27-7/9 (55-5/9)	277-7/9 (555-5/9)	27-7/9 (55-5/9)
	345	2	5.4	- (-)	185-5/27 (370-10/27)	18-14/27 (37-1/27)
2-200 <sup>②</sup>	120	2	3.6	27-7/9 (55-5/9)	277-7/9 (555-5/9)	27-7/9 (55-5/9)
	240	3	7.2	- (-)	138-8/9 (277-7/9)	13-8/9 (27-7/9)
	345	2	10.8	- (-)	92-16/27 (185-5/27)	9-7/27 (18-14/27)

Frequency 50 and 60 hz all ratings  
 Burden Data (0.1-10) ampere rating)  
 Voltage Coil (at rated voltage)  
 60 hz 1.0w, 7.8 rva, 7.9 va  
 50 hz 1.25w, 9.6 rva, 9.7 va

SANGAMO TYPES "KA", "KS" and "KF" SINGLE PHASE WATTHOUR METERS



Burden Data (Continued)

Current Coil (at 5 amperes)

60hz	2 wire	0.9w, 3.7rva, 3.8va
	3 wire (each coil)	0.45w, 1.8rva, 1.9va
50hz	2 wire	0.9w, 3.3rva, 3.4va
	3 wire (each coil)	0.45w, 1.6rva, 1.7va

- (1) Transformer type. All other ratings self-contained.
- (2) 2-200 ampere current range also applies to a 2-200 (2-100) ampere rating. The rating is determined by a small removable tab marked "100" that masks off the 200 marked on the nameplate.

All ratings are available in "A" diecast bottom connected base and "S" socket type base. Transformer type ratings are also available in the semi-flush "F" base for panel mounting.

All registers have test dials. They are located on the dial face of the clock type and on the right hand side of the cyclometer type.

The 5-dial clock register is available as a straight 5-dial, as a 4/5 dial register with a mask over the highest reading dial (S-EA.601) and with a tag marked "mult x 10" hung on the shaft of the lowest reading dial behind the pointer (E-38). See illustrations on pages 2 and 4.

The 4/5 dial clock register with the mask over the highest reading dial may not be used on 100 ampere 345 volt, 200 ampere 240 volt or 200 ampere 345 volt ratings.

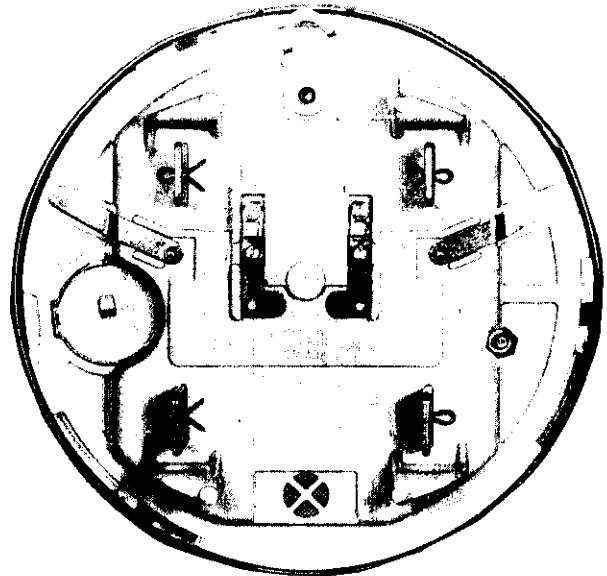
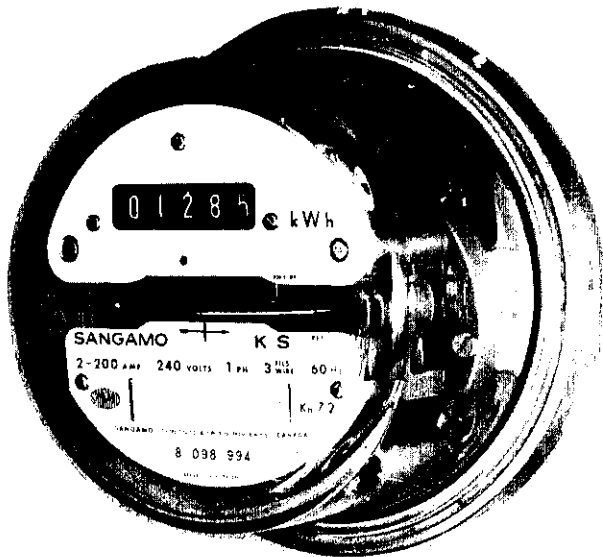
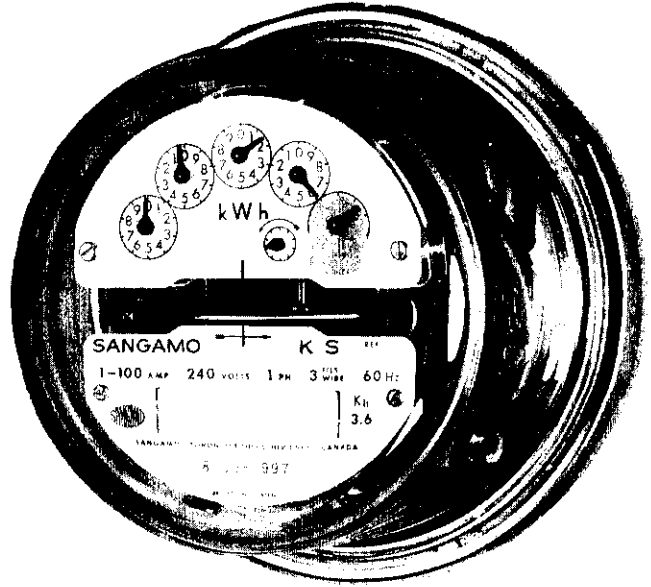
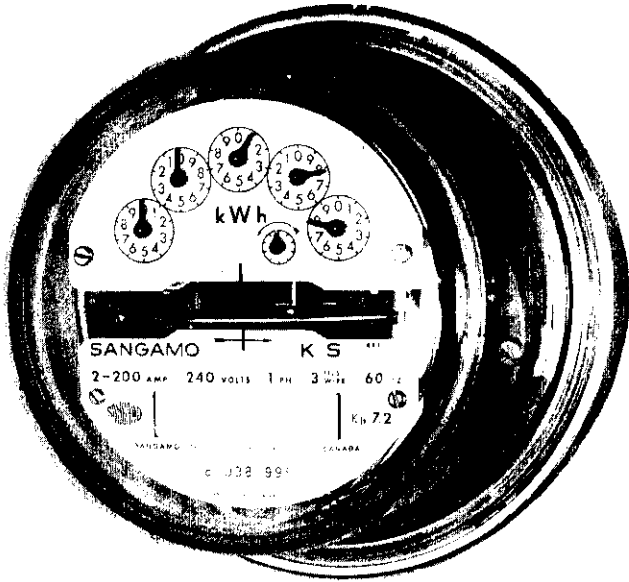
Description

The type K single phase watthour meter utilizes the same watthour element as those mounted in the type KY polyphase watthour meter line which received approval under E-60. Other related combination demand-energy meters incorporating the same element have also been approved recently.

Because of the reduced size of the K watthour element, it has been possible to reduce the cover height of the socket type meter by slightly more than one inch compared to the present type CJ3S. The "A" and "F" base enclosures are identical to those used on the type CJ3.

The watthour element, frame and rotating system are exactly the same as used in the type KW combination demand-energy meter (E-92). The register is of different design since it sits closer to the disc spindle and does not have to clear the demand scale.

SANGAMO TYPES "KA", "KS" and "KF" SINGLE PHASE WATTHOUR METERS



The current coils of the 10 ampere rating are wound on a bobbin while the 100 and 200 ampere ratings are self-supporting. Those for use in the "A" base are the same as used in the type KW but those for use in the socket base are of different design since the meter element sits lower in the socket base.

The socket base is the same moulded base as used on the type CJ3S except that the test links are mounted vertically and there is an "X" bar across the filter opening.

The cyclometer register received approval under E-80 and is mounted on posts of the K frame by means of screws from the front of the register. This brings the cyclometer register casting close to the frame.

The disc is magnetically supported and has two anti-creep holes that may be used for timing. Full load adjustment is a shunt on the left hand permanent magnet adjustable from the front and low load adjustment is by means of a knurled wheel projecting through a hole in the grid on the right hand side.

The potential coil leads on the S base are connected to the test links and the studs are connected to the blades.

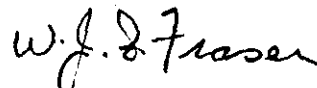
The current electromagnet is mounted on the frame by means of two screws of unequal length, the longer screw being on the left. This is for the purpose of balancing the coils of 3-wire meters.

Approval granted to:



(for) J.S.T. Swanson, P. Eng.,  
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Standards Branch.

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W.J.S. Fraser,  
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Electricity and Gas Division,  
Standards Branch.

Ref: SL-100-139  
SE-85-6-1