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NOTICE OF APPROVAL
AVIS D'APPROBATION

E-137

Ottawa, March 17, 1976

SANGAMO TYPE KYQO POLYPHASE "Q"-HOUR METERS

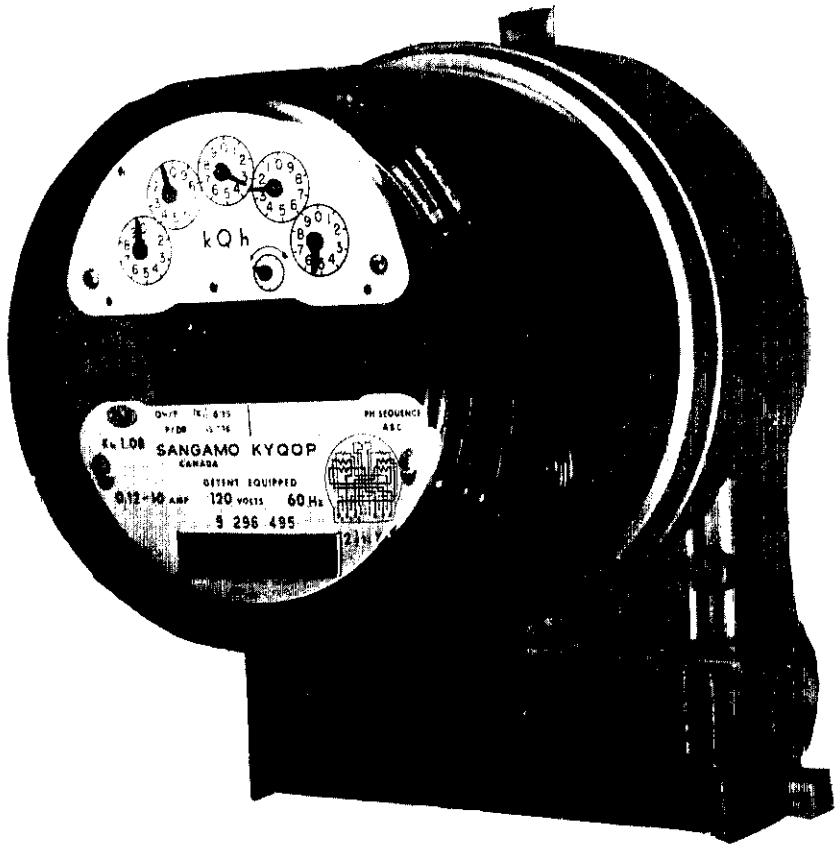
Elements	Current Range (amperes)	Volts	Kh	Register Ratio 4 and 5 dial x 1	Register Ratio 4 dial x 10
2	0.12 - 10	120	0.72	166-2/3	1666-2/3
		240	1.44	83-1/3	833-1/3
		480	2.88	41-2/3	416-2/3
		600	3.60	33-1/3	333-1/3
2-½ wye	0.12 - 10	120	1.08	111-1/9	1111-1/9
		240	2.16	55-5/9	555-5/9
		345	3.24	37-1/27	370-10/27
3 wye	0.12 - 10	120	1.08	111-1/9	1111-1/9
		240	2.16	55-5/9	555-5/9
		345	3.24	37-1/27	370-10/27

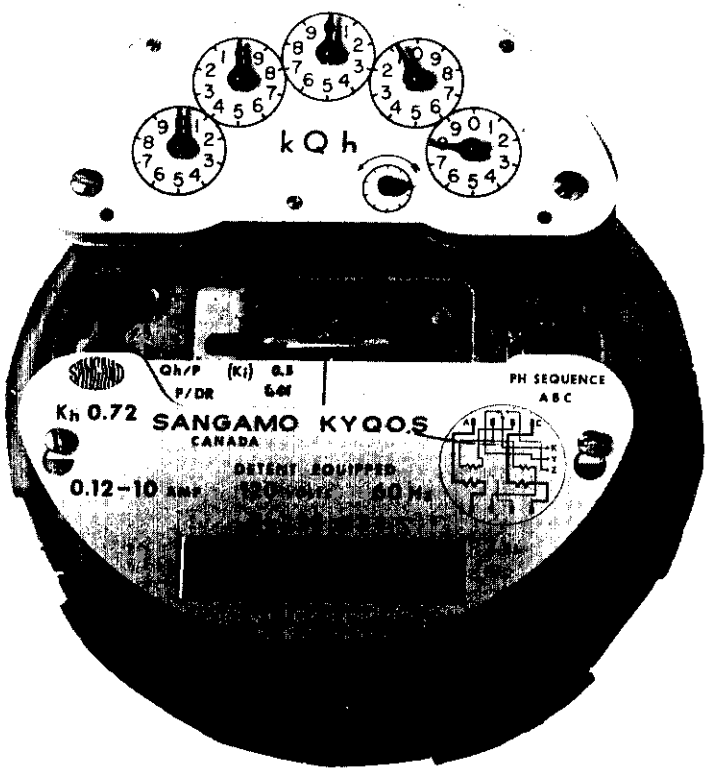
(1) Frequency 50 and 60 Hz
(2) Phase Rotation ABC shown on nameplate circuit diagrams.
(3) 2-Element "Q"-hour meter cannot be used with delta connected current transformers to measure 3 phase 4 wire wye service.
(4) 2-½ Element and 3-Element wye 240 volt 60Hz meters are approved for use on 277 volts without recalibration.
(5) All registers are clock type with test dials.
(6) All meters can be supplied with potential indicating lamps.
(7) All ratings are availabe in "S", "P", "F" and "FD" bases.
(8) All meters are fitted with type "O" pulse initiator (E-120) and a reverse running detent.

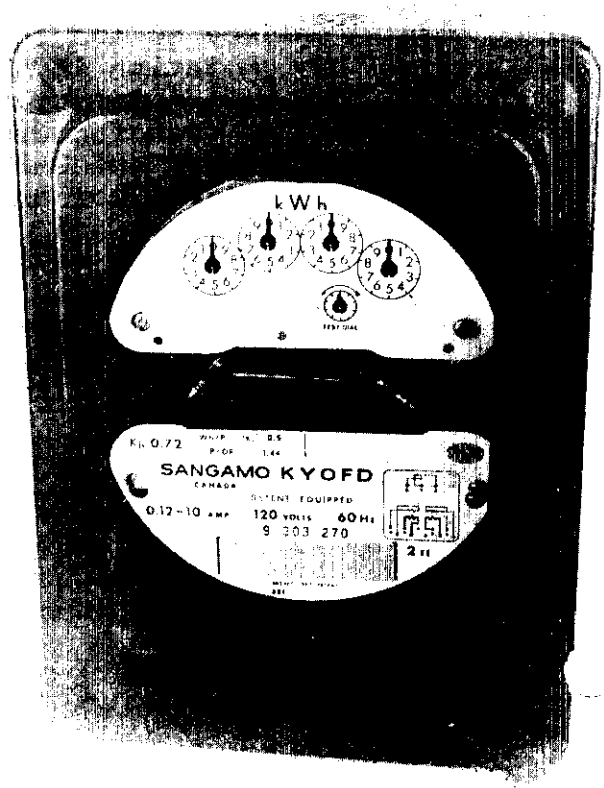
Burden Data:

Voltage Coil (at rated voltage) all types.
60 Hz 1.0W 7.9va 7.8rva
50 Hz 1.25w 9.7va 9.6rva

Current Coil (at 5 amps)
2-Element
60 Hz (single coil) 0.95w 3.90va 3.75rva
50 Hz (single coil) 0.95w 3.35va 3.20rva


kQh
SANGAMO KYQOP
CANADA
DETENT EQUIPPED
120 VOLTS
60 Hz
0.12-10 AMP
PH SEQUENCE
ABC


kQh
Kh 0.72
SANGAMO KYQOS
CANADA
DETENT EQUIPPED
0.12-10 AMP
60 Hz
PH SEQUENCE
ABC


kWh
SANGAMO KYOFD
CANADA
DETENT EQUIPPED
0.12-10 AMP
120 VOLTS
60 Hz

Current Coil (at 5 amps) (con'd)

2-½-Element wye			
60 Hz coils A and C	0.47w	1.95va	1.87rva
split coil B	0.95w	3.90va	3.75rva
50 Hz coils A and C	0.47w	1.67va	1.60rva
split coil B	0.95w	3.35va	3.20rva
3-Element wye			
60 Hz (single coil)	0.95w	3.90va	3.75rva
50 Hz (single coil)	0.95w	3.35va	3.20rva

Description

The "Q"-hour meters, herein granted approval, are similar to the type "KY" transformer type polyphase watthour meters described in Approval Notice E-60 except that, to produce the 60° potential lag relative to an equivalent watthour meter, the meters are connected internally as follows:

2-Element

Current connections unchanged.
Voltage connections cross-phased to introduce a 60° lag.

2½-Element

Current connections reversed and shifted 120° to introduce a 60° lag.
Voltage connections unchanged.

3-Element

Current connections unchanged.
Voltage connections reversed and shifted 120° to introduce a 60° lag.

Watthour meters will be used in conjunction with type KYQO "Q"-hour meters in order to determine load power factor. External connections to meter bases are exactly the same as associated watthour meters. However, when connecting for single phase test, the internal wiring of individual coils must be taken into account. For single phase test purposes "Q"-hour meters are to be treated as watthour meters.

Approval granted to:

Sangamo Company Limited,
Toronto, Ontario.

J.L. Armstrong, P. Eng.,
Chief, Standards Laboratory,

D.L. Smith, P. Eng.
Chief, Electricity & Gas Division,
Metrology & Laboratory Services

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