

3 Phase 3 Wire (2-Element)

# DEPARTMENT OF TRADE AND COMMERCE STANDARDS BRANCH

E-1

OTTAWA April 28, 19 65.

## NOTICE OF APPROVAL

FOR

SANGAMO TYPE "412" 2-ELEMENT AND 22-ELEMENT Y COMBINATION POLYPHASE DEMAND ENERGY METERS

### Apparatus

|   | Voltages:   | 115, 120,  | 230, 2/  | 0, 345,   | 460, 480,            | 575 and   | 600 volt  | s       |  |
|---|---|--|----------|-----------|----------------------|-----------|-----------|---------|--|
|   | Current Ranges  | <del>.</del>   |          | <b></b>   | <del> </del>         |           |           |         |  |
| c   | (amperes):  |  |          |           | .25-10 <sup>**</sup> |           |           | 2.5-150 |  |
| o.i   | Full Scale KW:  | 1.5  | 1<br>1   | 3<br>2    | 2                    |           | 15        | 30      |  |
| "   | Multiplier:   | 1  | 1        | 2         | 2                    | 5         | 10        | 20      |  |
|   | Disc Constant<br>(each disc):                         | 1/6  | 1/6      | 1/3       | 1/3                  | 1         | 1-2/3     | 3-1/3   |  |
|   | Register Ratio  | -, -   | -, -     |           | ·                    |           | •         | ·       |  |
|   | (Rr overall):   | 6000   | 6000     | 6000      | 6000                 | 5000      | 6000      | 6000    |  |
|   | Max. Amperes at                                       |  |          |           |                      |           | ~~~       | 5 -0    |  |
|   | rated KW & Volts:                                     |  | 5        |           | 10                   | 37.5      | 75        | 150     |  |
|   | Response Period:                                      | 10 and 16 minutes - all ratings                                |          |           |                      |           |           |         |  |
|   | Frequency:  | 50 and 60 cycles - all ratings                                 |          |           |                      |           |           |         |  |
|   | Register:   | Clock type, individual on each element, or differential        |          |           |                      |           |           |         |  |
|   |   | for total  | izing re | eadings o | of both el           | Lements ( | S-EA 493) |         |  |
|   | 3 Phase 4 Wire (22-Element Y)                         |  |          |           |                      |           |           |         |  |
|   |   |  |          |           |                      |           |           |         |  |
|   | Voltages:   | 120, 240 and 345 volts   |          |           |                      |           |           |         |  |
|   | Current Ranges  | · ot   | <b>*</b> |           |                      |           |           |         |  |
|   | (amperes):  | 0.12-6.0   |          |           | 0.5-40               | 1.2-85    |           |         |  |
| _`<br>∩.i   | Full Scale KW:  | 2  | 3<br>2   |           | 15                   | 30        |           |         |  |
| T C   | Multiplier:   | 2  | 2        |           | 10                   | 20        |           |         |  |
|   | Disc Constant   |  | - 4-     | ,         | 4-                   |           |           |         |  |
|   | (each disc):  | 1/2  | 1/2      |           | 2-1/2                | 5         |           |         |  |
|   | Register Ratio (Rr overall):                          | 4000   | ۵000     | ,         | 4000                 | 4000      |           |         |  |
|   | •   | 4000   | 4000     | •         | 4000                 | 4000      |           |         |  |
|   | Max. Amperes at rated KW & Volts:                     | 5.56   | 8.33     |           | 41.67                | 83.3      |           |         |  |
|   | Response Period:                                      |  |          |           | •                    | ,0,0,0    |           |         |  |
|   | •   | 10 and 16 minutes - all ratings 50 and 60 cycles - all ratings |          |           |                      |           |           |         |  |
|   | Frequency:  | Clock type, individual on each element, or differential        |          |           |                      |           |           |         |  |
| Register: Clock type, individual on each element, or differenti for totalizing readings of both elements (S-EA.493) |   |  |          |           |                      |           |           |         |  |
|   | TOT OF OUTERING TORONOOM OF COMMITTEE (D. 180 et / )) |  |          |           |                      |           | ,         |         |  |

- \* May be transformer type or self-contained, 1500-watt scale
- \*\* Transformer type with 1000-watt scale
- Full scale kilowatts, multiplier and disc constant are given for 115 or 120 volts
- # Applies to both watthour and demand readings.

#### Description

This is a re-issue of circular S-EA.583 (amended) of April 8, 1964, to include 2-element units with 345-volt potential coils and 2½-element Y units with 240- and 345-volt potential coils. The ratings covered by this circular are all current range rated and have an enclosed demand frame with dial and scale similar to that used in the "4L3". The former 2½-element Y ratings of 0.75-50 and 1.5-100 amperes have been changed to 0.5-40 and 1.2-85 amperes respectively, so that the current ranges of the "4L2" are now consistent with those of the types "4L3" and "ED30".

Approval granted to: Sangamo Co. Ltd., Leaside, Toronto 17, Ontario

W. J. S. Fraser,

W. J. France

Chief, Standards Laboratory, Standards Branch. K. Crver./

Chief, Electricity & Gas Division, Standards Branch.

Ref: SL-100-588D



## **Begin New Directory**

## SEAPORT IMAGING

# Ensign™

| Scanner Type: | ALL  |  |  |  |  |
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| .,            |  |  |  |  |  |
| Function:     | Begin New Directory                                      |  |  |  |  |
| , and         | Creates new directory at same level as current directory |  |  |  |  |
|               | by incrementing directory name.                          |  |  |  |  |
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