



TRADE AND COMMERCE
CANADA

STANDARDS BRANCH

OTTAWA March 28, 1962.

TYPE APPROVALSANGAMO TYPES "DE2A" AND "DE2S" THERMAL DEMAND-ENERGY METERS

The apparatus specified and illustrated herein has been duly approved by the Standards Branch under the provisions of the Electricity Inspection Act, Chapter 94, R.S. 1952, and may be admitted to verification in Canada.

Apparatus Approved: Types "DE2A" and "DE2S" Single-Phase Combination Thermal Demand-Energy Meters, manufactured by the Sangamo Company Limited, Leaside, Toronto 17, Ontario.

Rating of Apparatus:

Current Range (amperes) ...	0.06-6.5,	0.12-13,	0.37-32,	0.75-65,	1.5-130,	2-200
Voltage Rating	115 or 120	and 230	or 240			
# Disc Constant	1/6	1/3	5/6	1-2/3	3-1/3	5
Demand Scale (watts)	1500 - all ratings					
# Kilowatts75	1.5	3.75	7.5	15	22.5
* # Multiplier5	1	2-1/2	5	10	15
Register Ratio	3000 - all ratings					
Frequency	60 cycles - all ratings					
Test Period	20 and 32 minutes - all ratings					
Wire	2 and 3					

The disc constants, kilowatts and multipliers given above are for meters of 115-120 volt rating. For 230-240 volt meters, multiply by 2.

* The multiplier applies to both watt-hour and demand readings.

Description: The types "DE2A" and "DE2S" are electrically identical to the corresponding ratings of the types "DEA" and "DES". The latter types have been modified by the use of a new die-cast grid with the changes necessary to accommodate a standard guide pin bearing at the top and a magnetic bearing at the bottom. The upper guide bearing is the same as that used on the type "CJ3" meter. The lower bearing and barium ferrite bearing on the disc are specially designed to suit the space limitations. Temperature compensation for the magnetic flotation bearing is incorporated in the stationary magnet assembly at the time of die-casting. The damping magnet system has been changed slightly by the use of four short cylindrical magnets instead of two longer magnets each with a soft iron keeper. In the 0.75-65 ampere and lower ratings the watt-hour meter is self-contained, and the current coil or coils are in series with the current transformer which feeds the demand section. In the higher ratings, 1.5-130 amps. and 2-200 amps., a larger current transformer is used, and it feeds both the demand and watt-hour sections.

E. F. Power

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Ref: A-462

SANGAMO TYPE "DE2A" THERMAL DEMAND-ENERGY METER



