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

STANDARDS BRANCH - DIRECTION DES NORMES

NOTICE OF APPROVAL E-89

OTTAWA May 29, 1970.

CANADIAN GENERAL ELECTRIC TYPES "I50A", "I50S", "IM50A" AND "IM50S" SINGLE PHASE WATTHOUR AND COMBINATION DEMAND ENERGY METERS

I50A and I50S

Current Range Amperes	0.12-10	0.12-10	0.5-50	2.0-200
Voltages	115 or 120	230 or 240	115 or 120	230 or 240
Wire	2(1)	2(1) and 3(2)	2	3
Frequency	50(5) hz and 60 hz			
Disc Constant Kh	0.3	0.6	1.8	12
Register(8) Ratio	333-1/3	166-2/3	55-5/9	83-1/3(3)

IM50A(6) and IM50S(6) self contained.

Current Range Amperes	0.5-50			2.0-200
Voltages	115 or 120			230 or 240
Wire	2			3
Frequency	50(5) hz and 60 hz			
Disc Constant Kh	1.8			12
Register(8) Ratio	55-5/9	555-5/9	83-1/3	333-1/3
Full Scale	6 kw	600 w	4.8 kw	1200 w
Scale Multiplier(7)	1	10	10	40
Time Interval	15 and 30 minutes			

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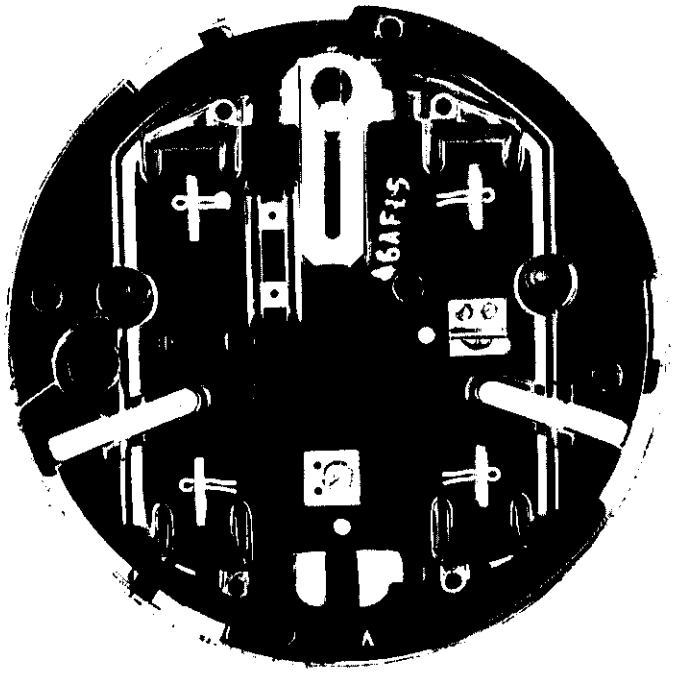
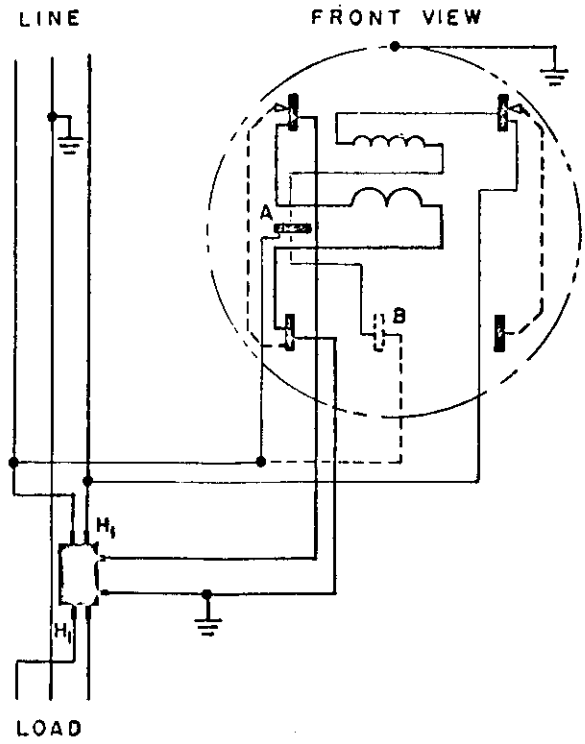
SINGLE-PHASE 3-WIRE CIRCUITS



N O T E - Mount removable terminal in position "A" for vertical socket. Change to position "B" for horizontal socket.



S-base, 2-wire, 0.12 - 10 A meter with 3-wire double-primary CT; 5-jaw socket with circuit-closing devices.

IM50A and IM50S transformer rated

Current Range Amperes	0.12-10	
Voltages	115 or 120	230 or 240
Wire	2(1)	2(1) and 3
Frequency	50(5) hz and 60 hz	
Disc Constant Kh	0.3	0.6
Register(8) Ratio	333-1/3	333-1/3
Full Scale	1200 w and 1.2 kw	1200 w and 1.2 kw
Scale Multiplier(7)	1(4)	2 (9)
Time Interval	15 and 30 minutes	

(1) I50S 2 wire meter may have 4 - or 5-blade base
(2) 6 - terminal meter with 3-wire winding
(3) 4-dial x 10 register with test dial or 5-dial x 1 register without test dial Rr 8-1/3
(4) Multiply by CT ratio x PT ratio
(5) 60 hz meter with lag loop and calibration adjusted for 50 hz operation
(6) The "M" in the type designation denotes the M-30 Demand Register (E-79)
(7) The multiplier applies to both the watthour and demand readings
(8) All registers will have test dials except 5-dial register on 200 ampere rating.
(9) Multiply by C T ratio.

Description

The I50- single phase watthour meter has the same overall features of the type I55- that received approval originally under SD-EA.189 except that the current rating does not have the same relationship to the watthour constant.

The disc is magnetically suspended and braking is by means of alnico 5 magnets on each side of the disc.

Full load adjustment is a shunt in the throat of one of the braking magnets, the low load adjustment is of the micrometer type and the lag adjustment is permanently fixed at the factory.

This is a consolidation of circulars SD-EA.233, SD-EA.242, SD-EA.268, SD-EA.273, SD-EA.343, SD-EA.382 and S -EA.576 and additionally covers the use of a 5-blade base on the 2-wire transformer rated types. The purpose of this base,

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because it requires a special socket, is to eliminate the possibility of a dead short due to an installer inserting a standard 3-wire meter into a 4 jaw socket wired according to Drawing 1-4. This base is of American manufacture and because it does not have a seal pan and dust filter, it must be sealed with a wire and lead seal. A back view of this base and a diagram of the connections is given on page 2 of this circular.

Note 1: All I50-meters have magnetic suspension of the disc, but meters produced since early 1963 incorporate filters, breathers and drainage holes, so for sample testing purposes the two types of construction should be segregated if possible.

Note 2: Manufacture of the 0.5-5 ampere and 2.0-200 ampere ratings of all types has been discontinued.

Approval granted to: Canadian General Electric Company Limited,
1130, Boulevard Charest,
Quebec 8, Quebec.

J.S.T. Swanson, P. Eng.,
Chief, Standards Laboratory,
Standards Branch.

W.J.S. Fraser,
Chief, Electricity & Gas Division,
Standards Branch.

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