Consumer and Corporate Affairs | Consommation et corporations

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NOTICE OF APPROVAL
AVIS D'APPROBATION

E- 21-1

Ottawa, February 18, 1977

CANADIAN GENERAL ELECTRIC TYPES "VA-63A" AND "VA-63S" 2-ELEMENT AND "VA-65A" AND "VA-65S" 2½-ELEMENT Y POLY-PHASE VAR HOUR METERS

This is a revision (re-issue) of Notice of Approval E-21, May 20, 1966 which is superseded.

Apparatus

2-Element

Current Range	0.12-10 amperes				
Voltages	120	240	345	480	600
Var hour disc constant (Kh)	1.2	2.4	3.6	4.8	6.0
Single Phase watt hour disc constant (test)	1.039	2.078	3.117	4.156	5.196
Register	4 dial x 1 with test dial				
Register ratio	166-2/3	83-1/3	55-5/9	41-2/3	33-1/3

2½-Element Y

Current Range	0.12-10 amperes
Voltage	208
Var hour disc constant (Kh)	1.8
Single Phase watt hour disc constant (test)	3.12
Register	4 & 5 dial x 1 with test dial
Register ratio	111-1/9


KILOVAR HOURS
GENERAL ELECTRIC
TYPE VA-63A 2 ELEMENT VARHOUR METER
VOLT 120
0.12-10 AMP.
60 Hz
Kh 1.2
P.T. ——-120
C.T. ——-5
PRI. Kh
CANADIAN GENERAL ELECTRIC CO LTD
QUEBEC P.Q.
KILOVAR HOURS
GENERAL ELECTRIC
TYPE VA-65A 2½ ELEMENTY VARHOUR METER
VOLT 208
0.12-10 AMP.
60 Hz
Kh 1.8
P.T. ——-208
C.T. ——-5
PRI. Kh
CANADIAN GENERAL ELECTRIC CO LTD
QUEBEC P.Q.

Description

The types VA-63 and VA-65 var hour meters are basically the same as the types V-63 and V-65 watt hour meters respectively.

The type VA-63 differs from the type V-63 in that it has two separate current coils on each electromagnet, one having twice the number of turns of the other and in having the two electromagnets cross-connected.

The type VA-65 is similar to the type V-65 in that it also has a split coil for "B" current, but differs in that the voltage coils are wound for 208 volts and are intended to be connected in service "line-to-line".

Verification of the type VA-65 will be done with 208 volts applied to both meter and standard.

When verifying the two element VA-63 on single phase, because of the direction in which the current coils are wound, it will be necessary to reverse the connections to the voltage coil of the right-hand element in order to produce forward rotation of the disc.

The type VA-63 may be used to meter the reactive energy in a 3-phase 4-wire Y circuit if the current coils are fed from the secondaries of three current transformers connected in delta, similar to the connections of a 2-element watt hour meter.

In this application, the connections differ from those of the 2-element watt hour meter in that - (a) the current to element "A" and (b) the potential to element "C" of the var hour meter are connected in reverse polarity.

As these var hour meters will measure correctly the reactive energy in a circuit only when connections are made in accordance with phase rotation, the Company has prepared and will include with every var hour meter shipped, a print showing the correct connections for various applications.

This print is reproduced on this circular.

For test and calibration procedure, refer to Technical Electric Circular E-77-1.

Approval granted to:

Canadian General Electric Co. Ltd.,
1130 Boulevard Charest,
Quebec, P.Q. G1N 2E2

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

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Chief, Electricity & Gas Division,
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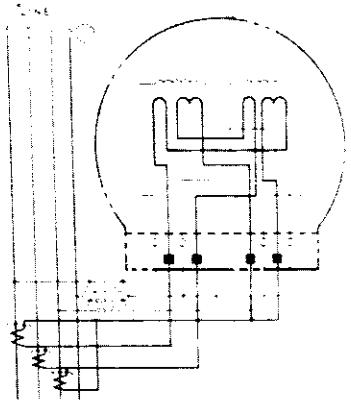
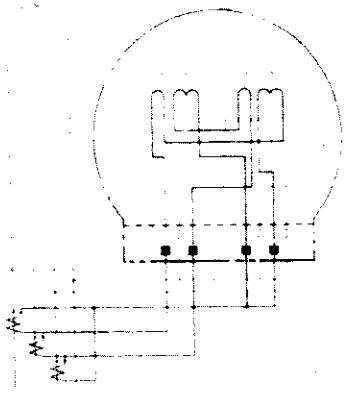
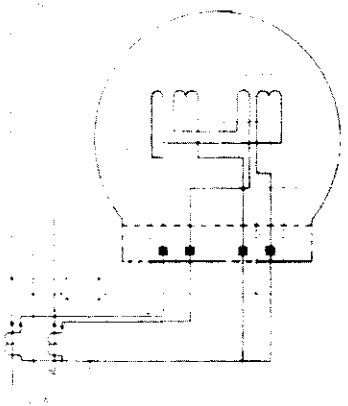
Ref: G 6565-C2-5



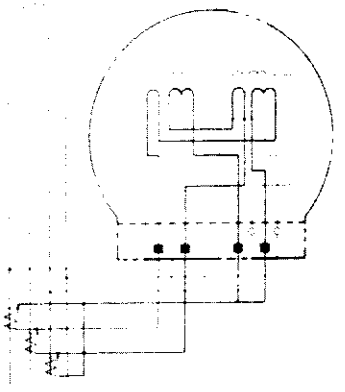
VA-63A POLYPH. VARHOUR METER
4 WIRE Y 3PH. WITH CURR & POT. TRANS
(PHASE SEQUENCE A-B-C-N)



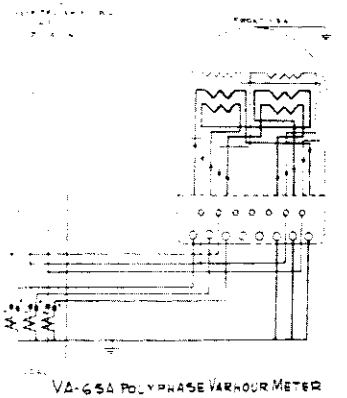
VA-63A POLYPH. VARHOUR METER
4 WIRE Y 3PH. WITH CURR. TRANS.
(PHASE SEQUENCE C-B-A-N)



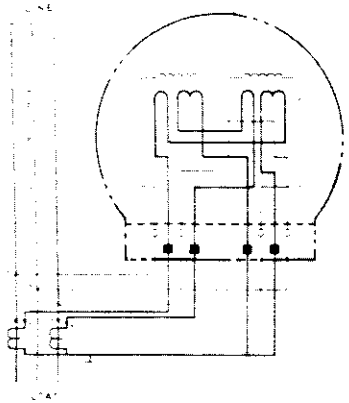
VA-63A POLYPH. VARHOUR METER
3 WIRE Δ 3PH. WITH CURR. TRANS.
(PHASE SEQUENCE A-B-C)



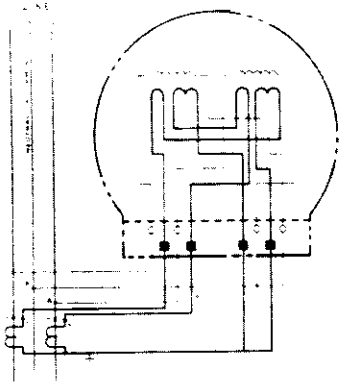
VA-63A POLYPH. VARHOUR METER
4 WIRE Y 3PH. WITH CURR. TRANS.
(PHASE SEQUENCE A-B-C-N)



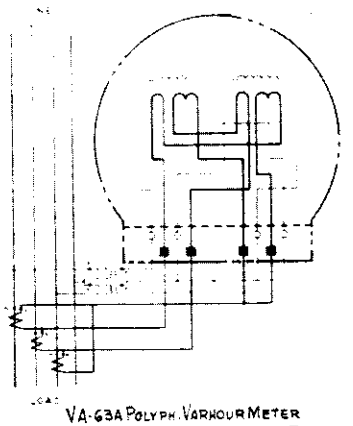
VA-65A POLYPHASE VARHOUR METER
4 WIRE Y 3 PHASE WITH CURR. TRANS.
(PHASE SEQUENCE A-B-C)



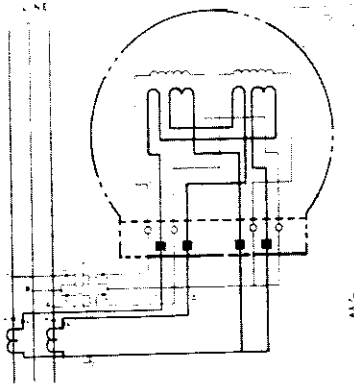
VA-63A POLYPH. VARHOUR METER
3 WIRE Δ 3PH. WITH CURR. TRANS.
(PHASE SEQUENCE A-B-C)



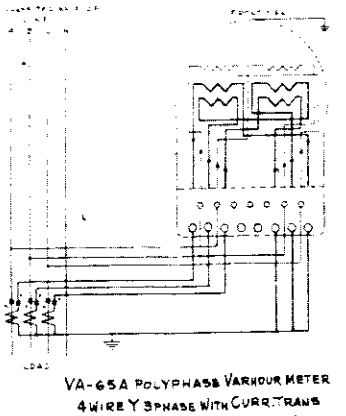
VA-63A POLYPH. VARHOUR METER
3 WIRE Δ 3PH. WITH CURR. TRANS.
(PHASE SEQUENCE C-B-A)



VA-63A POLYPH. VARHOUR METER
4 WIRE Y 3PH. WITH CURR & POT. TRANS.
(PHASE SEQUENCE C-B-A-N)



VA-63A POLYPH. VARHOUR METER
3 WIRE Δ 3PH. WITH CURR & POT. TRANS.
(PHASE SEQUENCE C-B-A)



VA-65A POLYPHASE VARHOUR METER
4 WIRE Y 3PHASE WITH CURR. TRANS
(PHASE SEQUENCE A-B-C)

ROUTE 12

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