



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



STANDARDS BRANCH - DIRECTION DES NORMES

NOTICE OF APPROVAL

E-24-1

OTTAWA December 15, 1971.

CANADIAN GENERAL ELECTRIC TYPES "V-62A", "V-62S", "V-63A", "V-63S",
"V-64A", "V-64S", "V-65A", "V-65S", "V-66A", "V-66S", "DS-63", DS-64",
"DS-65" and "DS-66" POLYPHASE WATTHOUR METERS

Current Ranges

V-62	1.2-100 and 2.5-200 amperes
V-63, V-65, V-66	.12-10, ^① .25-20, 1.2-100 and 2.5-200 amperes
V-64 ^②	.12-10, ^① 1.2-100 amperes
DS-64	.12-10, ^① .25-20 amperes
DS-63, DS-65, DS-66	.12-10, ^① .25-20 amperes

Voltage Ratings

V-62	120/208 and 345/600 volts
V-62, V-63, DS-63	115, 120, 230, 240, 345, 460, 480 and 600 volts
V-64, DS-64, V-65, DS-65	115, 120, 230, 240 and 345 volts
V-66, DS-66	230 and 240 volts

Circuit

V-62	2-element, network
V-63, DS-63	2-element, 3 phase 3 wire
V-64	3-element, 3 phase 4 wire wye
V-65, DS-65	2½-element Y, 3 phase 4 wire wye
V-66, DS-66	2½-element delta, 3 phase 4 wire delta

Frequency

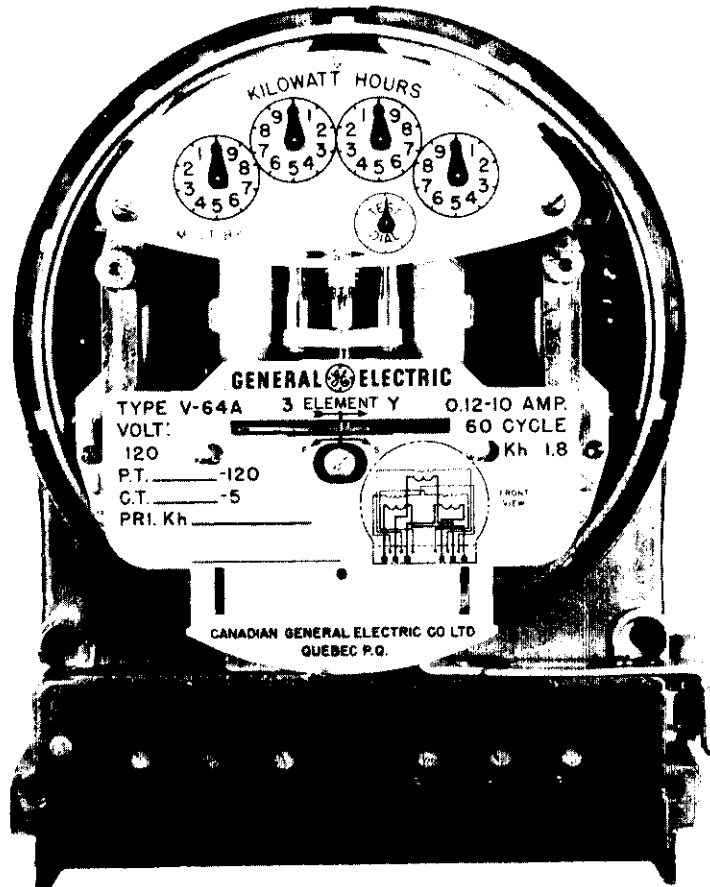
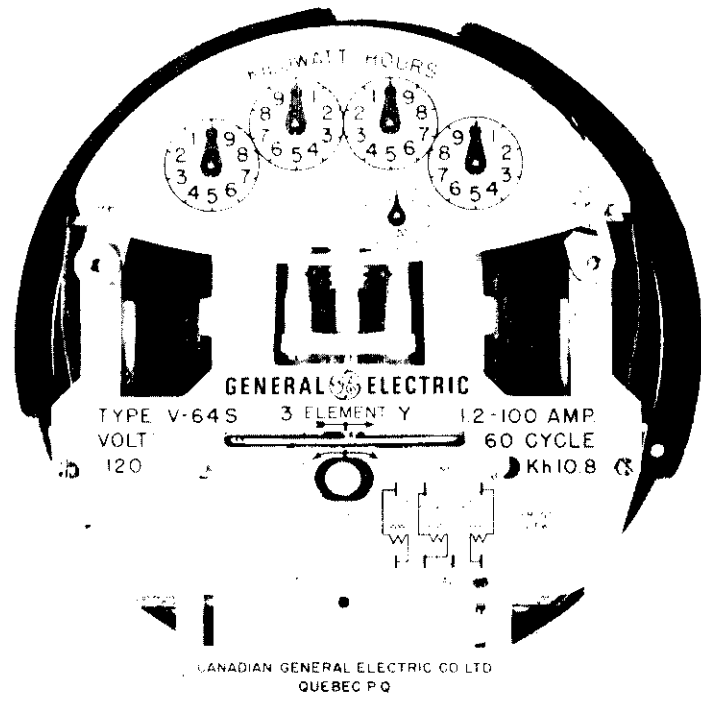
50Hz and 60Hz

Approved attachments

D-30V and D-41 contact devices and D-51 Impulse
Generator
M-30 demand register

① .12-10 ampere rating may be self-contained or for use with instrument transformers.

② Types V-64S and V-65S .12-10 ampere transformer type must be sealed with a lead seal. Sealing wires to be kept short.



Potential indicating lamps are optional equipment on both transformer types and self-contained types.

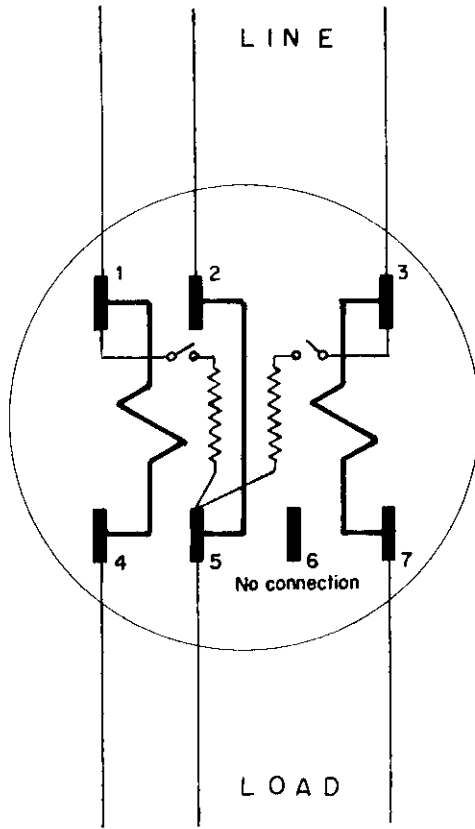
240 volt 60 Hz meters are approved for use on 277 volts. They will be marked and tested as 240 volt meters. 50Hz meters may not be so used.

Disc Constants (kh)

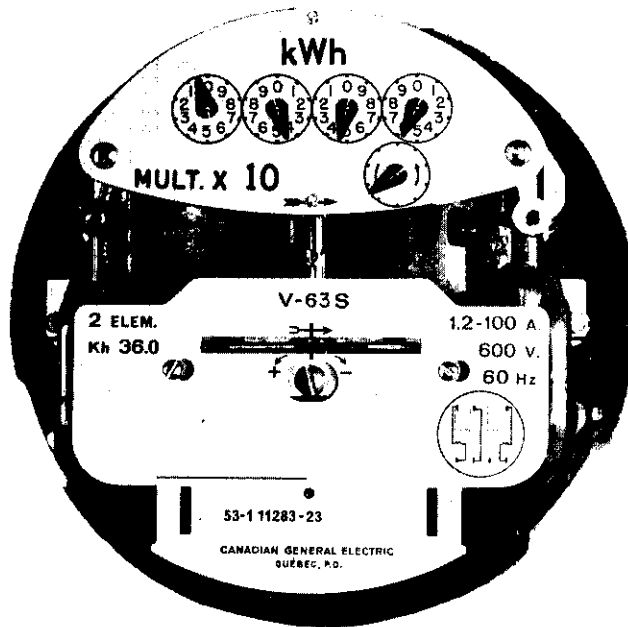
<u>V-62</u>	<u>120/208 volts</u>		<u>345/600 volts</u>		
1.2-100A	7.2		21.6		
2.5-200A	14.4		43.2		
<u>V-63, DS-63</u>	<u>115,120V</u>	<u>230,240V</u>	<u>345V</u>	<u>460,480V</u>	<u>600V</u>
.12-10A	1.2	2.4	3.6	4.8	6.0
.25-20A	2.4				
1.2-100A (V-63 only)	7.2	14.4		28.8	36.0
2.5-200A (V-63 only)	14.4	28.8		57.6	72.0
<u>V-64, DS-64</u>	<u>115,120V</u>	<u>230,240V</u>	<u>345V</u>		
.12-10A	1.8	3.6	5.4		
1.2-100A (V-64 only)	10.8	21.6	32.4		
<u>V-65, DS-65</u>	<u>115,120V</u>	<u>230,240V</u>	<u>345V</u>		
.12-10A	1.8	3.6	5.4		
1.2-100A (V-65 only)	10.8	21.6	32.4		
2.5-200A (V-65 only)	21.6	43.2	64.8		
<u>V-66, DS-66</u>		<u>230,240V</u>			
.12-10A		2.4			
1.2-100A (V-66 only)		14.4			
2.5-200A (V-66 only)		28.8			

Register Ratios

<u>V-62</u>	<u>120-208V</u>		<u>345-600V</u>		
1.2-100A	27-7/9 ① ③		9-7/27 ④		
	277-7/9 ②		92-16/27 ②		
2.5-200A	13-8/9 ④		4-17/27 ④		
	138-8/9 ②		46-8/27 ②		
<u>V-63, DS-63</u>	<u>115,120V</u>	<u>230,240V</u>	<u>345V</u>	<u>460,480V</u>	<u>600V</u>
.12-10A	166 2/3 ①	83 1/3 ①	55 5/9 ①	41 2/3 ①	33 1/3 ①
.25-20A	83 1/3 ①	-	-	-	-
1.2-100A (V-63 only)	27 7/9 ③	138 8/9 ②	-	69 4/9 ②	55 5/9 ②
	277 7/9 ②	13 8/9 ④	-	6 17/18 ④	5 5/9 ④
2.5-200A (V-63 only)	13 8/9 ④	69 4/9 ②	-	34 13/18 ②	27 7/9 ②
	138 8/9 ②	6 17/18 ④	-	3 17/36 ④	2 7/9 ④



FRONT VIEW



Register Ratios (ctd)

	<u>115, 120V</u>	<u>230, 240V</u>	<u>345V</u>
<u>V-64, DS-64</u>			
.12-10A	111 1/9 ^{①③}	55 5/9 ^①	37 1/27 ^①
1.2-100A (V-64 only)	185 5/27 ^②	92 16/27 ^②	61 59/81 ^②
	18 14/27 ^④	9 7/27 ^④	6 14/81 ^④
<u>V-65, DS-65</u>			
.12-10A	111 1/9 ^①	55 5/9 ^①	37 1/27 ^①
1.2-100A (V-65 only)	185 5/27 ^②	92 16/27 ^②	61 59/81 ^②
	18 14/27 ^④	9 7/27 ^④	6 14/81 ^④
2.5-200A (V-65 only)	92 16/27 ^②	46 8/27 ^②	30 70/81 ^②
	9 7/27 ^④	4 17/27 ^④	3 7/81 ^④
<u>V-66, DS-66</u>		<u>230, 240V</u>	
.12-10A		83 1/3 ^①	
1.2-100A (V-66 only)		138 8/9 ^②	
		13 8/9 ^④	
2.5-200A (V-66 only)		69 4/9 ^②	
		6 17/18 ^④	

- ① 4-dial x 1 with test dial
- ② 4-dial x 10 with test dial
- ③ 5-dial x 1 with test dial
- ④ 5-dial x 1 without test dial

Description

This is a consolidation of circulars SD-EA.384, SD-EA.404, S-FA.491, S-FA.589, E-12 and E-24 to include the previously approved ratings of the types, DS-63, DS-64, DS-65, DS-66, V-62, V-63, V-64, V-65 and V-66 and those ratings having 345 volt potential coils.

This is also to advise that V-63S meters with 600 volt potential coils and rated at 1.2-100 and 2.5-200 amperes may be mounted on a different base than that shown in our Schematic Diagram 13017-3302.

The schematic of the new base is illustrated on page 4 of this circular and shows a solid connection from blade 2 to blade 5. This connection is a copper bar having a current carrying capacity equal to that of the current coils.

The reason for the new base is the safety factor with the existing designs that one of the lines on the load side is "hot" when the meter is removed. The new base removes this hazard.

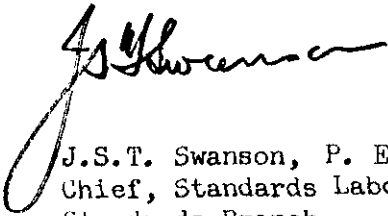
The DS- series have the same metering element as the corresponding V- series, but they are mounted in a rectangular case for switchboard mounting. All the DS- and V- series have a single disc except DS-64 which has two discs.

The DS- series may be sealed if necessary with a wire through the cover screws ending in a separate seal pan.


The V- types are sealed in the conventional manner except for types V-64S and V-65S which are to be sealed with a lead seal making sure that the sealing wires are kept short.

Approval granted to:

Canadian General Electric Company Ltd.,
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