

**Section 1**  
**Indoor**  
**Voltage Transformers**



**69.4V to 600 V Dry-Type  
Indoor Voltage**

**JE-27**  
50/60 Hz



**JE-27 voltage transformer**

**Application**

Designed for indoor service; suitable for operating meters, instruments, relays, control devices.

**ANSI Meter Accuracy Classification, 60 Hz**

Operated at Rated Voltage – Secondary at 120 Volts  
W, X Burdens per ANSI ..... 1.2  
Burden Impedance as at Rated Voltage, Operated at  
58% of Rated Voltage ③  
W, X Burdens per ANSI ..... 1.2

**Regulatory Agency Approvals**

UL Recognized ..... E96707

**Thermal Ratings (Volt-Amperes)**

55°C Rise Above 30°C Ambient ..... 150  
30°C Rise Above 55°C Ambient ..... 100

**Weight - Shipping/Net**

(approximate, in pounds)  
Transformer ..... 12/9

**Reference Drawings**

Outline Drawing ..... 9688894  
Wiring Diagram ..... refer to page 42, figure 5

JE-27 DATA TABLE ②						
Δ ①	Line-To-Line Circuit Voltage For Permissible Primary Connection		Transformer Rating		Ratio	Catalog Number
	Y ①	Y Only ②	Primary Voltage			
---	---	120	69.4	0.578:1		760X090001
120	120	208	120	1:1		760X090002
120	120	208	120	1.732:1		760X090003
208	208	---	207.8	1.732:1		760X090004
240	240	416	240	2:1		760X090005
---	---	480	288	2.4:1		760X090007
---	---	480	300	2.5:1		760X090008
480	480	832	480	4:1		760X090009
600	600	1,040	600	5:1		760X090010

Notes:

- ① For connection line-to-line. May be connected line-to-neutral or line-to-ground on grounded or ungrounded circuits at 58% of rated voltage.
- ② For connection line-to-ground on effectively grounded circuits.
- ③ Connected Y-Y at 58% of normal voltage and excitation. The burden volt-amperes is maintained constant regardless of the secondary voltage when determining the accuracy classification.



Data subject to change without notice.

**Construction and Insulation**

The transformer is of the dry-type construction, and is furnished without a case.

**Core and Coils**

A shell-type core is used. Enamel-insulated wire is used in the primary and secondary coils. The entire core and coil is thoroughly impregnated with a varnish insulating compound, which provides insulation of sufficient strength to withstand a 60 Hz, one minute test at 2,500 Volts from primary to secondary, and from each coil to ground.

**Terminals**

Both primary and secondary terminals are flat copper strips drilled and tapped for a 10-32 round head screw. The transformers are finished complete with the screws.

**Polarity**

Polarity marks are located adjacent to their respective terminals.

**Baseplate and Mounting**

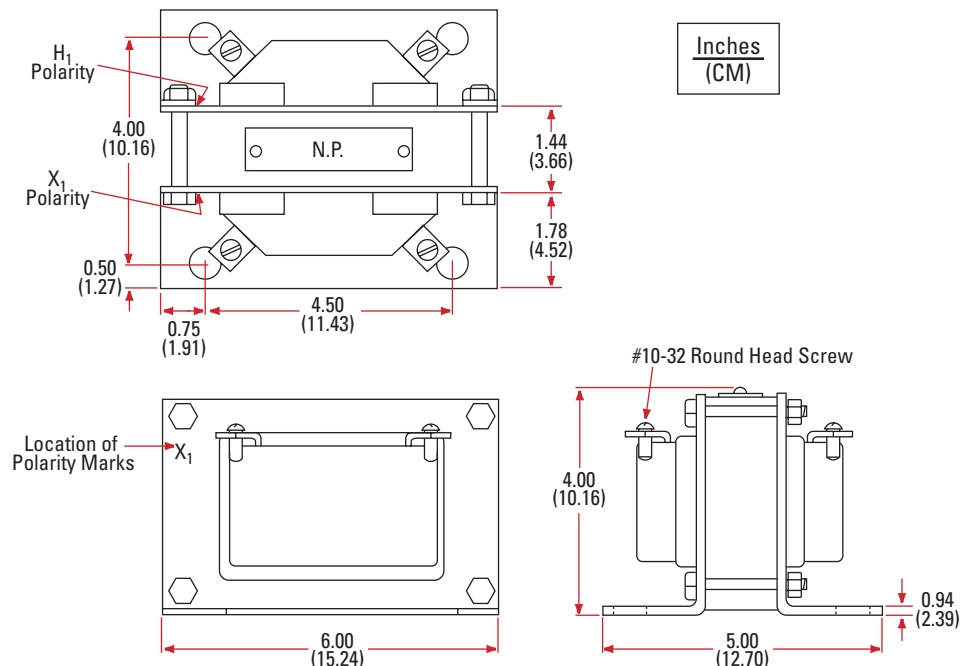
The base of the JE-27 is provided with 1/16 inch diameter mounting holes in each corner. The transformer may be wall or panel mounted.

**Nameplate**

Please refer to General Product Information, item 6.10.

**Maintenance**

Please refer to pages 24-27.



JE-27 mechanical dimensions



Data subject to change without notice.

120 V to 600 V BIL 10 kV  
Indoor Voltage  
**JVA-0**  
50/60 Hz



*JVA-0 voltage transformer fused, for indoor use only*

### Application

Designed for indoor and outdoor service; suitable for operating meters, instruments, relays, control devices, either singly or in combination.

### Regulatory Agency Approvals

Unfused Model ..... UL Recognized, File E96707

### Thermal Ratings (Volt-Amperes)

55°C Rise Above 30°C Ambient ..... 500  
30°C Rise Above 50°C Ambient ..... 300

### Weight - Shipping/Net

(approximate, in pounds)

Unfused, with Primary and Secondary Covers ... 19/16  
Fused, with Secondary Cover ..... 20/17

### Reference Drawings

Accuracy Curve ..... 9689241470  
Outline Drawings:  
Unfused ..... 9926353  
One or two fuses ..... 9926354  
Wiring Diagram ..... refer to page 42, figure 5

### Accessories ..... Catalog Number

Fuse Accessory Kit ..... 8944637078  
(Following parts are included in Kit)  
Primary Fuse Tub Assembly ..... 9926349001  
Primary Fuse Cover ..... 8944637079  
Fuses (not included in Fuse Accessory Kit):  
10 A, 600 V Fuse ..... 9926358001  
6 A, 600 V Fuse ..... 9926358002  
3 A, 600 V Fuse ..... 9926358003

**JVA-0 DATA TABLE**

Line-To-Line Circuit Voltage			Transformer Rating ③		Accuracy Classification, 60 Hz				Catalog Number			Fuse 600 V Class
					Burden ①		Burden ②		Unfused	Indoor Use Only		
Δ①	Y②	Y④	Primary Voltage	Ratio	W, X, M	Y	W	X		One Primary	Two Primary	
120	120	208	120	1:1	0.3	0.6	0.3	0.6	760X034001	760X034064	760X034022	10A
240	240	416	240	2:1	0.3	0.6	0.3	0.6	760X034002	760X034065	760X034023	6A
--	--	480	288	2.4:1	0.3	0.6	--	--	760X034004	760X034067	760X034025	6A
--	--	480	300	2.5:1	0.3	0.6	--	--	760X034005	760X034068	760X034026	6A
480	480	--	480	4:1	0.3	0.6	0.3	0.6	760X034006	760X034069	760X034027	3A
600	600	--	600	5:1	0.3	0.6	0.3	0.6	760X034007	760X034070	760X034028	3A

Notes:

- ① Operated at rated voltage; secondary at 120 V.
- ② Operated at 58% of rated voltage; secondary at 69.4 V.
- ③ For continuous operation, the transformer rated primary voltage should not be exceeded by more than 10%. Under emergency conditions, overvoltage must be limited to 1.25 times the transformer primary voltage rating.
- ④ For Y connections, it is preferred practice to connect one lead from each voltage transformer directly to the grounded neutral, using a fuse only in the line side of the primary. By this connection a transformer can never be "alive" from the line side by reason of a blown fuse on the grounded side.



Data subject to change without notice.

### Construction and Insulation

Please refer to General Product Information, item 1.7.

### Core and Coils

The primary and secondary coils are precision wound on an insulated spool. The primary is sandwiched between two secondary coils that are connected in parallel. The primary and secondary coils are then cast in epoxy resin. A dispersed-gap silicon core is then positioned through the center and around the outside of this combined coil.

### Primary Terminals

These compression terminals, identified as H<sub>1</sub> and H<sub>2</sub>, are conveniently located on top of the transformer. They are fixed, tin-plated, brass posts with holes to accommodate No. 6 to No. 14 wire sizes. The brass screws for securing wires to the posts are tin-plated.

To provide an easy means of establishing voltage identification, each transformer has the primary and secondary voltages stenciled in large, orange digits on the butyl surface, directly below the terminal locations.

### Fusing

An accessory kit consisting of a primary fuse tab, primary fuse and cover can be supplied, without the fuses. When added to the unfused design, the transformer is converted to a fused model. These parts are made of LEXAN® resin, with the primary fuse cover transparent for added safety. Refer to the Fuses information under the Accessories in this data sheet for catalog numbers.

### Secondary Terminals

These compression terminals, identified as X<sub>1</sub> and X<sub>2</sub>, are conveniently located on top of the transformer. They are fixed, tin-plated, brass posts with holes to accommodate No. 6 to No. 14 wire sizes. The brass screws for securing wires to the posts are tin-plated.

### Cover

A transparent, LEXAN® secondary-terminal cover is furnished without charge when ordered with the transformer. This cover provides a safe means of observing the electrical connections without requiring its removal.

### Polarity

Please refer to General Product Information, item 7.1.

### Baseplate and Mounting

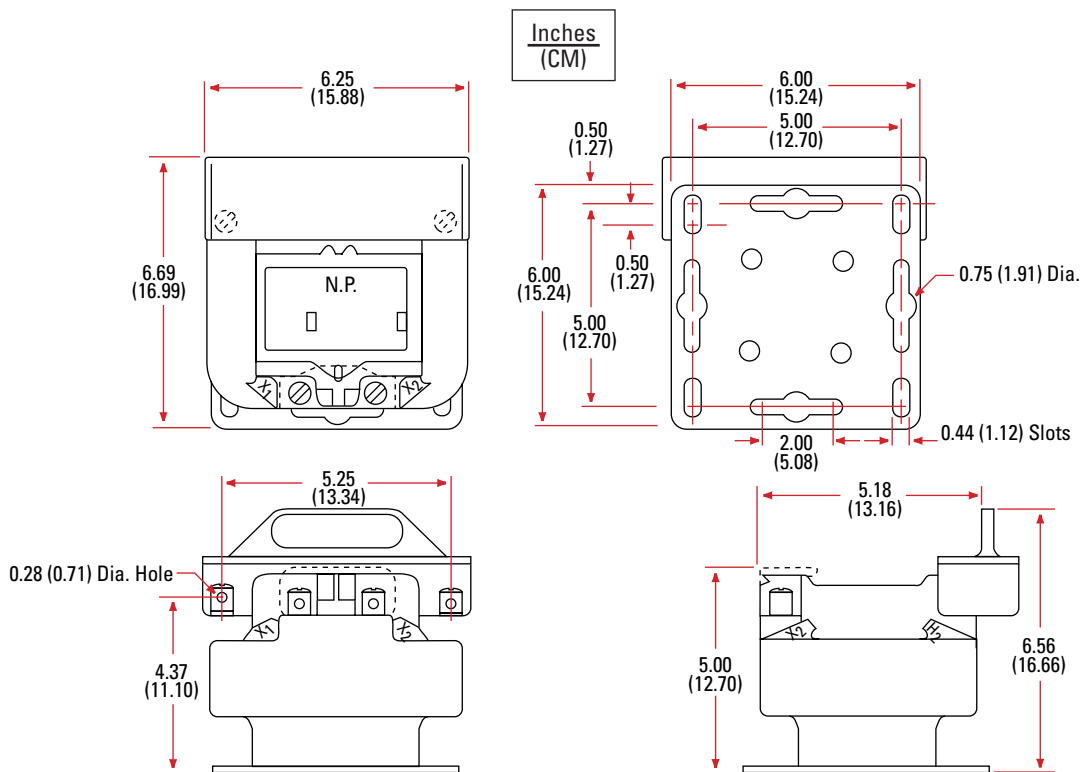
The unfused unit has a removable stainless-steel base. This unit is usable for either gang or cluster mounting on special brackets manufactured for this purpose. Special brackets, Types TMB-3, TMB-3W, and QTMB are available.

### Nameplate

Please refer to General Product Information, item 6.1.

### Maintenance

Please refer to General Product Information, item 10.1 and pages 24-27.

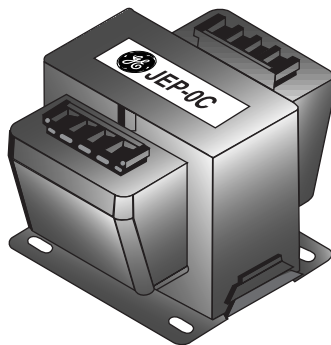


JVA-0 mechanical dimensions



Data subject to change without notice.

69.4V to 600 V BIL 10 kV  
Indoor Voltage  
**JEP-0C**  
60 Hz



JEP-0C voltage transformer

### Application

Designed for indoor service; suitable for operating meters, instruments, relays, and control devices.

### ANSI Meter Accuracy Classification, 60 Hz

Operated at Rated Voltage – Secondary at 120 Volts;  
Burdens per ANSI:

W ..... 0.3  
X ..... 0.6

Burden Impedance as at Rated Voltage, Operated at  
58% of Rated Voltage ③; Burdens per ANSI:

W ..... 0.6  
X ..... 1.2

### Thermal Ratings (Volt-Amperes)

30°C Ambient ..... 300  
55°C Ambient ..... 200  
55°C Ambient at 50 Hz ..... 190

### Weight - Shipping/Net

(approximate, in pounds)

Transformer ..... 13/12

### Reference Drawings

Accuracy Curve ..... 9932600226  
Excitation Curve ..... 9932600208  
Outline Drawing ..... C9937710  
Wiring Diagram ..... refer to page 42, figure 5

JEP-0C DATA TABLE

Δ ①	Line-To-Line Circuit Voltage For Permissible Primary Connection		Transformer Rating Primary		Catalog Number
	Y ①	Y Only ②	Voltage	Ratio	
---	---	120	69.4	0.578:1	760X135001
120	120	208	120	1:1	760X135002
208	208	---	208	1.732:1	760X135003
240	240	416	240	2:1	760X135004
---	---	480	288	2.4:1	760X135005
---	---	480	300	2.5:1	760X135006
380	380	---	380 ④	3.17:1	760X135007
480	480	832	480	4:1	760X135008
600	600	1040	600	5:1	760X135009

Notes:

- ① For connection line-to-line. May be connected line-to-neutral or line-to-ground on grounded or ungrounded circuits at 58% of rated voltage.
- ② For connection line-to-ground on effectively grounded circuits.
- ③ Connected Y-Y at 58% of normal voltage and excitation. The burden volt-amperes is maintained constant regardless of the secondary voltage when determining the accuracy classification.
- ④ This voltage ratio is specifically designed for 50 Hz operation.



Data subject to change without notice.

## Construction and Insulation

The transformer has a dry-type construction.

## Core and Coils

The primary and secondary coils are precision wound on an insulated spool. An alternate stack silicon core is then positioned through the center and around the outside of this combined coil. The coil assembly is encapsulated in epoxy.

## Terminals

The primary and secondary terminals are mounted in a convenient location on top of the transformer. Connectors to these terminals are made with # 8-32 brass screws, which are supplied. Both the terminals and screws are tin plated.

## Polarity

The primary and secondary polarity markers are indicated on the label, which is placed on top of the case.

## Baseplate and Mounting

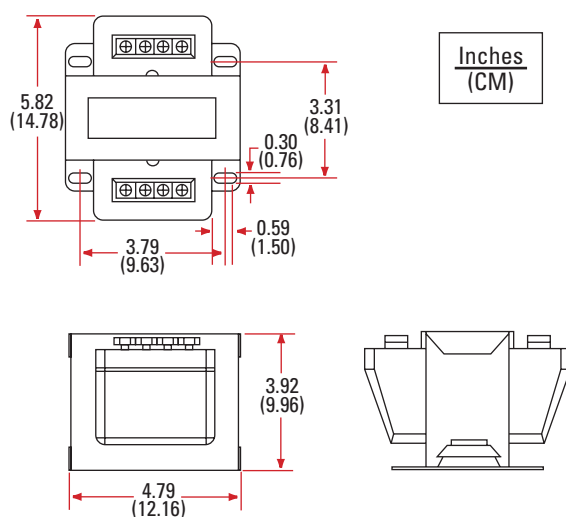
The base of the transformer has a slot in each corner to facilitate mounting to a wall or panel.

## Nameplate

Please refer to General Product Information, item 6.10.

## Maintenance

Please refer to General Product Information, item 10.1 and pages 24-27.



**JEP-0C mechanical dimensions**



Data subject to change without notice.

**240 V to 600 V BIL 30 kV**  
**Indoor Voltage**  
**JVP-1**  
**50/60 Hz**



**JVP-1 voltage transformer**  
*(two primary fuses with fuse covers)*

**Application**

Designed for indoor service; suitable for operating meters, instruments, relays, and control devices.

**Thermal Ratings (Volt-Amperes)**

55°C Rise Above 30°C Ambient ..... 750  
 30°C Rise Above 50°C Ambient ..... 500

**Weight - Shipping/Net**

*(approximate, in pounds)*

Unfused ..... 35/30  
 With Two Primary Fuses ..... 38/33

**Reference Drawings**

Accuracy Curve ..... 9689241831  
 Outline Drawings:  
     Unfused with Primary Terminal Bushing . A9925192  
     Unfused with Primary Terminal Cover ..... A9925193  
     Two Fuse ..... A9925195  
 Wiring Diagram ..... refer to page 42, figure 5

**Accessories ..... Catalog Number**

Fuses; 5 A, 600 V ..... 9F60AAA005  
 Secondary Terminal Conduit Box ..... 9925183001

JVP-1 DATA TABLE											
Line-To-Line Circuit Voltage ④			Transformer Rating ③		Accuracy Classification, 60 Hz			Catalog Number			Fuse 600 V Class
								Unfused		Two Fuses, Indoor Use	
Δ ①	Y ②	Y Only ①	Primary Voltage	Ratio	Burden ①		Burden ②	Primary Terminal			
					W, X, M, Y	Z		W, X	Bushings	Cover	
240	240	416	240	2:1	0.3	1.2	0.6	761X030001	761X030006	761X020001	5A
--	--	480	288	2.4:1	0.3	1.2	--	761X030002	761X030007	761X020002	5A
--	--	480	300	2.5:1	0.3	1.2	--	761X030003	761X030008	761X020003	5A
480	480	--	480	4:1	0.3	1.2	0.6	761X030004	761X030009	761X020004	5A
600	600	--	600	5:1	0.3	1.2	0.6	761X030005	761X030010	761X020005	5A

Notes:

- ① Operated at rated voltage; secondary at 120 V.
- ② Operated at 58% of rated voltage; secondary at 69.4 V.
- ③ For continuous operation, the transformer rated primary voltage should not be exceeded by more than 10%. Under emergency conditions, overvoltage must be limited to 1.25 times the transformer primary voltage rating.
- ④ For Y connections, it is preferred practice to connect one lead from each voltage transformer directly to the grounded neutral, using a fuse only in the line side of the primary. By this connection a transformer can never be "alive" from the line side by reason of a blown fuse on the grounded side.



*Data subject to change without notice.*

### Construction and Insulation

Please refer to General Product Information, items 1.2 and 1.8.

### Core and Coils

The core is made of high quality grain-oriented silicon steel strip which is carefully selected, tested, and annealed under rigidly controlled conditions. It is wound into a rectangular shape to fit the coils. Both primary and secondary coils are layer wound and designed to give a low regulation to achieve high accuracy levels.

### Primary Terminals

The primary terminals are located on the top of the transformer. They consist of 1/4 inch-20 screws, with lock washers and cup washers.

Unfused models are available with either a primary terminal cover or primary terminal bushings. The terminal cover is a sealable, molded-phenolic cover, which fits over the primary terminals to provide primary circuit insulation and to prevent tampering. When bushings are provided, the primary terminals are located on top of raised, cylindrical tapping bushings to improve ease of taping the connection between the primary circuit conductors and the terminals. When primary terminal bushings are provided, a terminal cover cannot be accommodated.

On the two-fuse models, the primary terminals are attached directly to the fuse supports.

### Fuse Covers

Fuse covers with seal tabs are furnished assembled on the two-fuse model of the JVP-1. These covers are molded of HY-BUTE 60 insulation.

### Secondary Terminals

The secondary terminals are located at the lower front of the transformer, and are specifically designed to be accessible from the top of the transformer. The secondary terminals are 1/4 inch-20 screws with lock washers. The secondary terminal cover is molded of black phenolic resin, and is completely waterproof.

### Conduit Box

A secondary terminal conduit box is available as an option in place of the standard secondary terminal cover. The conduit box and cover are made of corrosion-resistant, zinc-coated steel. The conduit box is fitted with two 1 inch conduit hubs, a 3/4 inch and 1 inch knockout, one pipe plug, polarity markers, and a gasketed cover, secured by four sealable captive thumbscrews.

### Polarity

Please refer to General Product Information, item 7.1

### Baseplate and Mounting

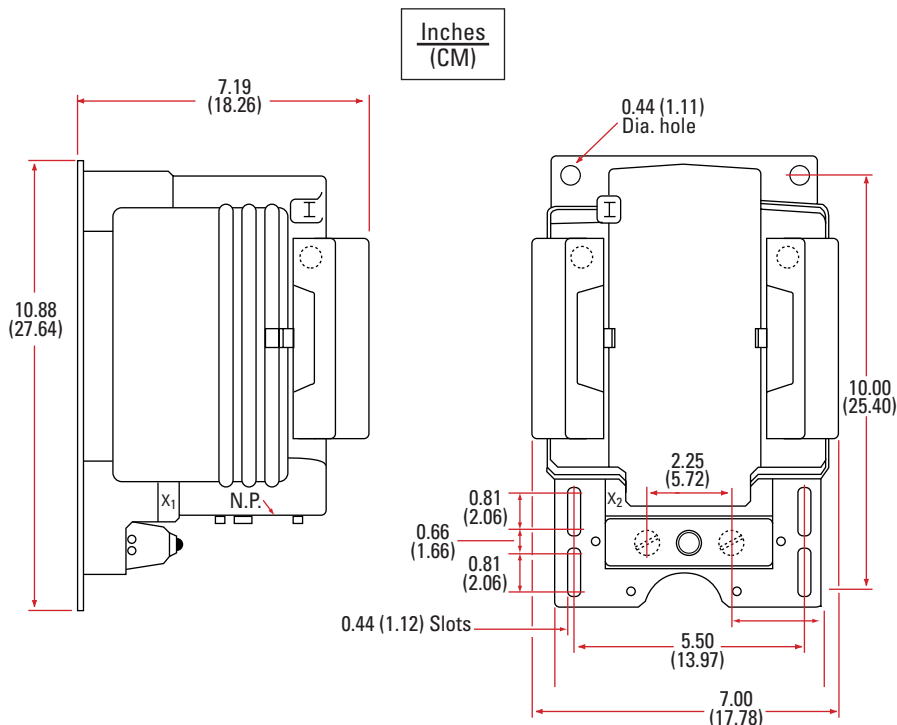
Please refer to General Product Information, item 5.1.

### Nameplate

Please refer to General Product Information, item 6.9.

### Maintenance

Please refer to General Product Information, item 10.1 and pages 24-27.



JVP-1 voltage transformer (unfused)



Data subject to change without notice.

**2,400 V BIL 45 kV**  
**Indoor Voltage**  
**JVM-2**  
**50/60 Hz**



**JVM-2 voltage transformer**  
*(two primary fuses with fuse covers)*

**Application**

Designed for indoor service; suitable for operating meters, instruments, relays, and control devices.

**Thermal Rating (Volt-Amperes)**

55°C Rise above 30°C Ambient ..... 750  
 30°C Rise above 55°C Ambient ..... 500

**Weight - Shipping/Net**

*(approximate, in pounds)*  
 Unfused ..... 35/30  
 With one primary fuse ..... 37/32  
 With two primary fuses ..... 38/33

**Reference Drawings**

Accuracy Curve ..... 9689241267  
 Excitation Curve ..... 5454043  
 Outline Drawings:  
     Unfused with Primary Bushings ..... 9925196  
     Unfused with Primary Terminal Cover ..... 9925197  
     Single Fuse ..... 9925198  
     Two Fuse ..... 9925199  
 Wiring Diagram ..... refer to page 42, figure 5

**Accessories ..... Catalog Number**

Fuses, 600 Volt Class, 1 Ampere ..... 9F60AAB001  
 Secondary Terminal Conduit Box ..... 9925183001

JVM-2 DATA TABLE												
Line-To-Line Circuit Voltage For Permissible Primary Connection			Transformer Rating ①		ANSI Accuracy Class, 60 Hz				Catalog Number		Fuse Rating	
					Burden Per ANSI		Burden Impedances at Rated Voltage, but Operated at 58%					
Δ	Y	Y Only ③	Primary Voltage	Ratio	Operated at Rated Voltage	Operated at 58% of Rated Voltage	Operated at 58%	Rated Voltage ②		Amps	Volts	
<b>Primary Terminal Bushings</b>												
2400	2400	4160	2400	20:1	0.3 W, X, M, Y; 1.2 Z	0.3 W, X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z'		<b>762X022003</b>	--	--	
<b>Primary Terminal Cover</b>												
2400	2400	4160	2400	20:1	0.3 W, X, M, Y; 1.2 Z	0.3 W, X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z'		<b>762X022004</b>	--	--	
<b>One Fuse ⑤</b>												
2400	2400	4160 ④	2400	20:1	0.3 W, X, M, Y; 1.2 Z	0.3 W, X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z'		<b>762X022002</b>	1A	2400	
<b>Two Fuses</b>												
2400	2400	4160 ④	2400	20:1	0.3 W, X, M, Y; 1.2 Z	0.3 W, X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z'		<b>762X022001</b>	1A	2400	

Notes:

- ① For continuous operation, the transformer-rated primary voltage should not be exceeded by more than 10%. Under emergency conditions, over-voltage must be limited to 1.25 times the transformer primary-voltage rating.
- ② Operated at 58% of Rated Voltage; the prime symbol (') is used to signify that these burdens do not correspond to standard ANSI definitions.
- ③ The insulation strength of these transformers is below the impulse level of 60 kV recommended by ANSI for 5 kV service.

- ④ The circuit must be solidly grounded with a 4160 V Y primary connection, since the fuse is rated only to 2400 volts.
- ⑤ On transformers with one primary fuse, the neutral terminal insulation to ground is 2500 volts.

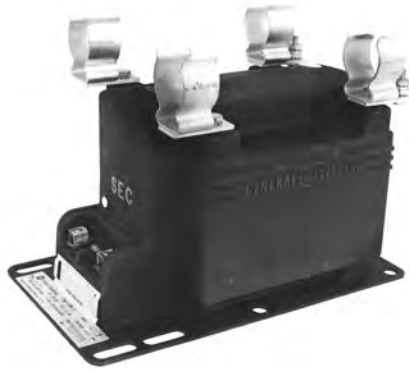


*Data subject to change without notice.*



2,400 V to 4,800 V BIL 60 kV  
Indoor Voltage

**JVM-3**  
50/60 Hz



JVM-3 voltage transformer (two-fuse design)

**Application**

Designed for indoor service; suitable for operating meters, instruments, relays, and control devices.

**Regulatory Agency Approvals**

UL Recognized ..... File E178265

**Thermal Rating (Volt-Amperes)**

55°C Rise above 30°C Ambient ..... 750  
30°C Rise above 55°C Ambient ..... 500

**Weight - Shipping/Net**

(approximate, in pounds)

Unfused ..... 35/30  
With Fuses ..... 38/33

**Reference Drawings**

Accuracy Curve ..... 9689241268  
Excitation Curve ..... 5454043  
Outline Drawings:  
Unfused ..... 8949739  
One/Two Fuse; -040 and -042 ..... 9926292  
One Fuse; -033, -31, -32 ..... 8949740  
Two Fuse; -024, -18, -19 ..... 8949741  
Wiring Diagram ..... refer to page 42, figure 5

**Accessories ..... Catalog Number**

Fuses:

2400 Volt Class, 1 Ampere ..... 9F60AAB001  
4800 Volt Class, 1 Ampere ..... 9F60BBD001  
4800 Volt Class, 0.5 Ampere ..... 9F60BBD905  
Secondary Terminal Conduit Box ..... 9925183001

JVM-3 DATA TABLE

Line-To-Line Circuit Voltage For Permissible Primary Connection Δ    Y    Y Only	Transformer Rating ① Primary Voltage    Ratio		ANSI Accuracy Classification, 60 Hz			Catalog Number	Primary Fuse Rating	
			Burden Per ANSI		Burden Impedance as at Rate Voltage but Operated at 58% Rated Voltage ②		Amps	Volts
			Operated at Rated Voltage	Operated at 58% of Rated Voltage				
<b>Unfused</b>								
2400    2400    4160	2400	20:1	0.3 W, X, M, Y; 1.2 Z	0.3 W,X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z	<b>763X021001</b>	--	--
4200    4200    --	4200	35:1	0.3 W, X, M, Y; 1.2 Z	0.3 W,X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z	<b>763X021002</b>	--	--
4800    4800    --	4800	40:1	0.3 W, X, M, Y; 1.2 Z	0.3 W,X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z	<b>763X021003</b>	--	--
<b>With One Primary Fuse</b>								
--    --    2400	2400	20:1	--	0.3 W,X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z	<b>763X021042</b>	1 A	2400
--    --    4160	2400	20:1	0.3 W, X, M, Y; 1.2 Z	--	--	<b>763X021033</b>	1 A	4800
--    --    4200	4200	35:1	--	0.3 W,X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z	<b>763X021031</b>	0.5 A	4800
--    --    4800	4800	40:1	--	0.3 W,X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z	<b>763X021032</b>	0.5 A	4800
<b>With Two Primary Fuses</b>								
2400    --    2400 ③	2400	20:1	0.3 W, X, M, Y; 1.2 Z	0.3 W,X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z	<b>763X021040</b>	1 A	2400
--    --    4160	2400	20:1	0.3 W, X, M, Y; 1.2 Z	--	--	<b>763X021024</b>	1 A	4800
4200    --    4200 ③	4200	35:1	0.3 W, X, M, Y; 1.2 Z	0.3 W,X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z	<b>763X021018</b>	0.5 A	4800
4800    --    4800 ③	4800	40:1	0.3 W, X, M, Y; 1.2 Z	0.3 W,X; 1.2 M, Y	0.3 W', X', M', Y'; 1.2 Z	<b>763X021019</b>	0.5 A	4800

Notes:

- ① For continuous operation, the transformer-rated primary voltage should not be exceeded by more than 10%. Under emergency conditions, over-voltage must be limited to 1.25 times the transformer primary-voltage rating.
- ② Operated at 58% of Rated Voltage; the prime symbol (') is used to signify that these burdens do not correspond to standard ANSI definitions.

- ③ For Y connections, it is preferred practice to connect one lead from each voltage transformer directly to the grounded neutral, using a fuse only in the line side of the primary. By this connection a transformer can never be "alive" from the line side by reason of a blown fuse on the grounded side.



Data subject to change without notice.



4,200 V to 14,400 V BIL 75 kV to 110 kV  
Indoor Voltage

# JVM-4/JVM-5

60 Hz



**ACCUBUTE**  
AVAILABLE

When choosing your GE Instrument Transformer, don't forget to explore the benefits of using GE's 0.15 accuracy class AccuBute line. See page 1-16.



JVM-4, -5 voltage transformer  
(unfused design)

## Application

Designed for indoor service; suitable for operating meters, instruments, relays, and control devices.

## ANSI Meter Accuracy Classification, 60 Hz

Operated at Rated Voltage

0.3 W, X, M, Y, Z; 1.2 ZZ ..... Data Table - Accuracy 1

Operated at 58% of Rated Voltage

0.3 W, X, M, Y; 1.2 Z ..... Data Table - Accuracy 2

Burden Impedance as at Rated Voltage, Operated at 58% of Rated Voltage ②

0.3 W', X', M', Y', Z' ..... Data Table Accuracy 3

## Regulatory Agency Approvals

UL Recognized ..... File E178265

## Thermal Rating (Volt-Amperes)

55°C Rise above 30°C Ambient ..... 1,500

30°C Rise above 55°C Ambient ..... 1,000

JVM-4/JVM-5 DATA TABLE

Line-To-Line Circuit Voltage For Permissible Primary Connection Δ      Y      Y only	Transformer Rating ① Primary Voltage    Ratio		ANSI Accuracy Classification, 60 Hz			BIL	Catalog Number Supplied with Fuses	Catalog Number Fuses not Supplied	Primary Fuse Rating			
			Operated at Rated Voltage	Operated at 58% of Rated Voltage	Burden Imp. as at Rated Voltage; Operated at 58% Rated Voltage ②				Amps    Volts			
<b>Unfused – JVM-4</b>												
4,200	4,200	7,200	4,200	35:1	Accuracy 1	Accuracy 2	Accuracy 3	75 kV	764X020001	---	---	---
4,800	4,800	8,320 ③	4,800	40:1	Accuracy 1	Accuracy 2	Accuracy 3	75 kV	764X020002	---	---	---
7,200	7,200	---	7,200	60:1	Accuracy 1	Accuracy 2	Accuracy 3	75 kV	764X020003	---	---	---
<b>One Primary Fuse – JVM-4</b>												
---	---	4,200	4,200 ④	35:1	---	Accuracy 2	Accuracy 3	75 kV	764X020021	---	2 A	4,800
---	---	7,200	4,200 ⑦	35:1	Accuracy 1	---	---	75 kV	764X020023	---	2 A	7,200
---	---	4,800	4,800	40:1	---	Accuracy 2	Accuracy 3	75 kV	764X020022	---	2 A	4,800
---	---	7,200	7,200	60:1	---	Accuracy 2	Accuracy 3	75 kV	764X020024	---	1 A	7,200
<b>Two Primary Fuses – JVM-4</b>												
4,200	---	4,200 ③	4,200 ⑦	35:1	Accuracy 1	Accuracy 2	Accuracy 3	75 kV	764X020012	---	2 A	4,800
---	---	7,200 ③	4,200	35:1	Accuracy 1	---	---	75 kV	764X020015	---	2 A	7,200
4,800	---	4,800 ③	4,800	40:1	Accuracy 1	Accuracy 2	Accuracy 3	75 kV	764X020013	---	2 A	4,800
7,200	---	7,200 ③	7,200	60:1	Accuracy 1	Accuracy 2	Accuracy 3	75 kV	764X020016	---	1 A	7,200
<b>Unfused – JVM-5</b>												
7,200	7,200	12,470	7,200	60:1	Accuracy 1	Accuracy 2	Accuracy 3	110 kV	765X021001	---	---	---
8,400	8,400	14,400	8,400	70:1	Accuracy 1	Accuracy 2	Accuracy 3	110 kV	765X021002	---	---	---
12,000	12,000	---	12,000	100:1	Accuracy 1	Accuracy 2	Accuracy 3	110 kV	765X021003	---	---	---
14,400	14,400	---	14,400	120:1	Accuracy 1	Accuracy 2	Accuracy 3	110 kV	765X021004	---	---	---
<b>One Primary Fuse – JVM-5</b>												
---	---	7,200	7,200 ⑤	60:1	---	Accuracy 2	Accuracy 3	110 kV	765X021053	765X021061	1 A	7,200
---	---	12,470	7,200	60:1	Accuracy 1	---	---	110 kV	765X021048	765X021056	1 A	14,400
---	---	14,400	8,400	70:1	Accuracy 1	---	---	110 kV	765X021049	765X021057	1 A	14,400
---	---	12,000	12,000	100:1	---	Accuracy 2	Accuracy 3	110 kV	765X021050	765X021058	1 A	14,400
---	---	14,400	14,400	120:1	---	Accuracy 2	Accuracy 3	110 kV	765X021051	765X021059	1 A	14,400
<b>Two Primary Fuses – JVM-5</b>												
7,200	---	7,200 ③	7,200 ⑥	60:1	Accuracy 1	Accuracy 2	Accuracy 3	110 kV	765X021031	765X021047	1 A	7,200
7,200	7,200	12,470 ③	7,200	60:1	Accuracy 1	---	---	110 kV	765X021027	765X021043	1 A	14,400
8,400	8,400	14,400 ③	8,400	70:1	Accuracy 1	Accuracy 2	Accuracy 3	110 kV	765X021028	765X021044	1 A	14,400
12,000	---	12,000 ③	12,000	100:1	Accuracy 1	Accuracy 2	Accuracy 3	110 kV	765X021029	765X021045	0.5 A	14,400
14,400	---	14,400 ③	14,400	120:1	Accuracy 1	Accuracy 2	Accuracy 3	110 kV	765X021030	765X021046	0.5 A	14,400

Notes:

- ① For continuous operation, the transformer-rated primary voltage should not be exceeded by more than 10%. Under emergency conditions, over-voltage must be limited to 1.25 times the transformer primary-voltage rating.
- ② Operated at 58% of Rated Voltage; the prime symbol (') is used to signify that these burdens do not correspond to standard ANSI definitions.
- ③ For Y connections, it is preferred practice to connect one lead from each voltage transformer directly to the grounded neutral, using a fuse only in the line side of the primary. By this connection a transformer can never be "alive" from the line side by reason of a blown fuse on the grounded side.

- ④ This transformer is similar to Catalog Number 764X020023 except for the voltage rating of the fuse.
- ⑤ This transformer is similar to Catalog Number 765X021048 except for the voltage rating of the fuse.
- ⑥ This transformer is similar to Catalog Number 765X021027 except for the voltage rating of the fuse.
- ⑦ This transformer is similar to Catalog Number 764X020015 except for the voltage rating of the fuse.



Data subject to change without notice.

**Weight - Shipping/Net**

(approximate, in pounds)

Unfused .....	105/85
With fuses .....	110/90

**Reference Drawings**

Accuracy Curve .....	9689241655
Excitation Curves:	
60:1 and 70:1 .....	9689241591
100:1 and 120:1 .....	9689241629
Outline Drawings:	
JVM-4	
Unfused Models .....	8949818
One Fuse Models .....	8949938
Two Fuse Models .....	8949820
JVM-5	
Unfused Models .....	8949818
One Fuse Models:	
Model 765X021053 only .....	8949938
All except Model 756X021053 .....	8949939
Two Fuse Models:	
Model 765X021031 only .....	8949825
All except Model 765X021031 .....	8949824
Wiring Diagram .....	refer to page 42, figure 5

**Accessories ..... Catalog Number**

Fuses, Current-limiting, Type EJ-1:	
4,800 Volt Class, 2 Ampere .....	9F60BDD002
7,200 Volt Class, 1 Ampere .....	9F60BDE001
7,200 Volt Class, 2 Ampere .....	9F60BDE002
14,400 Volt Class, 0.5 Ampere .....	9F60BHH905
14,400 Volt Class, 1 Ampere .....	9F60BHH001

**Construction and Insulation**

Please refer to General Product Information, item 1.4.

**Core**

Please refer to General Product Information, item 2.3.

**Primary and Secondary Coils**

Please refer to General Product Information, item 3.2.

**Primary Terminals**

Please refer to General Product Information, item 4.2.

**Fuses**

Current-limited, Type EJ-1 fuses are used.

**Secondary Terminals**

Please refer to General Product Information, item 4.12.

**Polarity**

Please refer to General Product Information, item 7.2.

**Baseplate and Mounting**

Please refer to General Product Information, item 5.6.

**Nameplate**

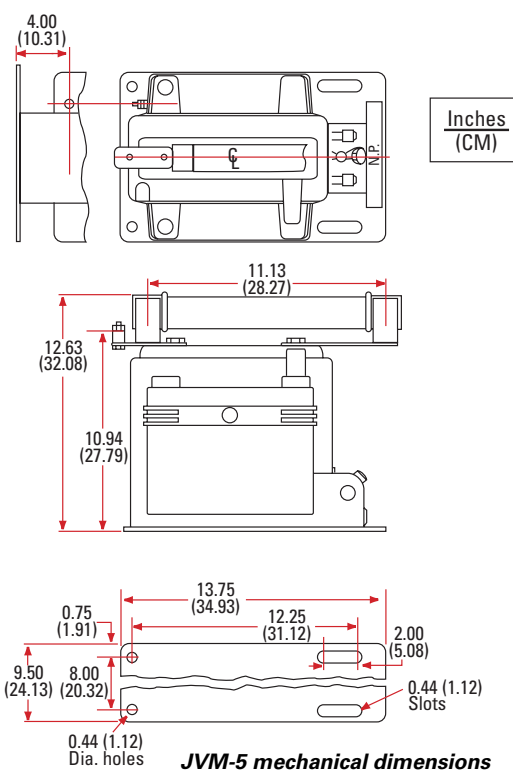
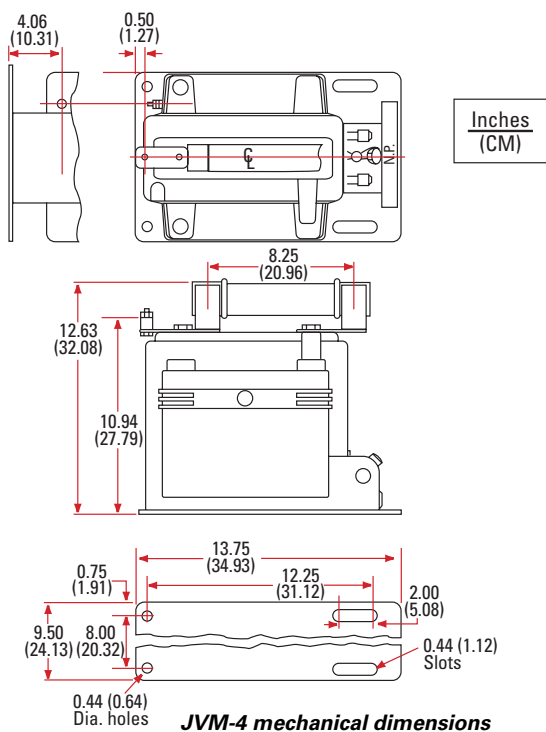
Please refer to General Product Information, item 6.5.

**Maintenance**

Please refer to General Product Information, item 10.1 and pages 24-27.

**Note:**

1. Voltage transformers of this type are available for use in 50 Hz applications in many ratings. However, Industry Standard IEEE 57.13 to which we test transformers does not apply at 50 Hz. Customers who order voltage transformers for 50 Hz application should provide an accuracy specification including Burden VA and Power Factor. If an accuracy specification is not made available, the transformer(s) will be tested at 60 Hz with test burdens as defined in IEEE 57.13 for 60 Hz application.



Data subject to change without notice.

4,200 V to 14,400 V BIL 75 kV to 110 kV  
Indoor Voltage

# JVM-4A/JVM-5A



60 Hz



JVM-4A, -5A voltage transformer  
(two-fuse design)

## Application

Designed for indoor service; suitable for operating meters, instruments, relays, and control devices.

## Regulatory Agency Approvals

UL Recognized ..... File E178265

## Thermal Rating (Volt-Amperes)

55°C Rise above 30°C Ambient ..... 2,000  
30°C Rise above 55°C Ambient ..... 1,400

## Weight - Shipping/Net

(approximate, in pounds)

Unfused ..... 105/85  
Fused ..... 110/90

## Reference Drawings

Accuracy Curve ..... 9932600137  
Excitation Curves:  
JVM-4A; 60:1 and 70:1 ..... 9689241591  
JVM-4A; 100:1 and 120:1 ..... 9689241629  
JVM-5A ..... 9932600139

JVM-4A/JVM-5A DATA TABLE

Line-To-Line Circuit Voltage For Permissible Primary Connection Δ      Y      Y Only			Transformer Rating ①		Accuracy Classification 60 Hz		BIL	Catalog Number	Primary Fuse Ratings	
			Primary Voltage	Ratio	ACCUBUTE	ANSI			Amps	Volts
<b>Unfused – JVM-4A</b>										
4,200	4,200	7,200	4,200	35:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	75 kV	764X021001	---	---
4,800	4,800	8,320	4,800	40:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	75 kV	764X021002	---	---
7,200	7,200	---	7,200	60:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	75 kV	764X021003	---	---
<b>One Primary Fuse – JVM4A</b>										
---	---	4,200	4,200 ③	35:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z ②	75 kV	764X021010	2 A	4,800
---	---	7,200	4,200	35:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	75 kV	764X021011	2 A	7,200
---	---	4,800	4,800	40:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z ②	75 kV	764X021012	2 A	4,800
---	---	7,200	7,200	60:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z ②	75 kV	764X021013	1 A	7,200
<b>Two Primary Fuses – JVM-4A</b>										
4,200	---	4,200 ④	4,200	35:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	75 kV	764X021021	2 A	4,800
4,800	---	4,800 ④	4,800	40:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	75 kV	764X021022	2 A	4,800
7,200	---	7,200 ④	7,200	60:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	75 kV	764X021023	1 A	7,200
<b>Unfused – JVM-5A</b>										
7,200	7,200	12,470	7,200	60:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023001	---	---
7,620	7,620	13,200	7,620	63.5:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023002	---	---
8,400	8,400	14,400	8,400	70:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023003	---	---
12,000	12,000	---	12,000	100:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023004	---	---
13,200	13,200	---	13,200	110:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023005	---	---
14,400	14,400	---	14,400	120:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023006	---	---
<b>One Primary Fuse – JVM5A</b>										
---	---	7,200	7,200 ⑤	60:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z ②	110 kV	765X023010	1 A	7,200
---	---	12,470	7,200	60:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023011	1 A	14,400
---	---	7,620	7,620	63.5:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023012	1 A	14,400
---	---	8,400	8,400	70:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023013	1 A	14,400
---	---	12,000	12,000	100:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z ②	110 kV	765X023014	0.5 A	14,400
---	---	13,200	13,200	110:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z ②	110 kV	765X023015	0.5 A	14,400
---	---	14,400	14,400	120:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z ②	110 kV	765X023016	0.5 A	14,400
<b>Two Primary Fuses – JVM-5A</b>										
7,200	---	7,200 ④	7,200	60:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023020	1 A	7,200
12,000	---	12,000 ④	12,000	100:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023024	0.5 A	14,400
13,200	---	13,200 ④	13,200	110:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023025	0.5 A	14,400
14,400	---	14,400 ④	14,400	120:1	0.15 W, X, M, Y	0.3 W, X, M, Y, Z	110 kV	765X023026	0.5 A	14,400

Notes:

- ① For continuous operation, the transformer-rated primary voltage should not be exceeded by more than 10%. Under emergency conditions, over-voltage must be limited to 1.25 times the transformer primary-voltage rating.
- ② ANSI 69 Volt burden.
- ③ This transformer is similar to Catalog Number 764X021011 except for the voltage rating of the fuse.

- ④ For Y connections, it is preferred practice to connect one lead from each voltage transformer directly to the grounded neutral, using a fuse only in the line side of the primary. By this connection a transformer can never be "alive" from the line side by reason of a blown fuse on the grounded side.
- ⑤ This transformer is similar to Catalog Number 765X023011 except for the voltage rating of the fuse.



Data subject to change without notice.

**Reference Drawings (con't)**

Outline Drawings:

JVM-4A	
Unfused .....	8949818
One Fuse .....	8949938
Two Fuses .....	8949820
JVM-5A	
Unfused .....	9935471
One Fuse (except Model 765X023010) ...	9935473
One Fuse (Model 765X023010 only) .....	9935472
Two Fuses (except Model 965X023020) ..	9935475
Two Fuses (Model 765X023020 only) .....	9935474
Wiring Diagram .....	refer to page 42, figure 5

**Accessories ..... Catalog Number**

Fuses, Current-limiting, Type EJ-1:

4,800 Volt Class, 1 Ampere .....	9F60BDD001
4,800 Volt Class, 2 Ampere .....	9F60BDD002
7,200 Volt Class, 1 Ampere .....	9F60BDE001
7,200 Volt Class, 2 Ampere .....	9F60BDE002
14,400 Volt Class, 0.5 Ampere .....	9F60BHH905

**Construction and Insulation**

Please refer to General Product Information, item 1.4.

**Core**

Please refer to General Product Information, item 2.3.

**Primary and Secondary Coils**

Please refer to General Product Information, item 3.2.

**Primary  
Terminals**

Please refer to General Product Information, item 4.2.

**Fuses**

Current-limited, Type EJ-1 fuses are used.

**Secondary  
Terminals**

Please refer to General Product Information, item 4.12.

**Polarity**

Please refer to General Product Information, item 7.2.

**Baseplate and Mounting**

Please refer to General Product Information, item 5.6.

**Nameplate**

Please refer to General Product Information, item 6.5.

**Maintenance**

Please refer to General Product Information, item 10.1 and pages 24-27.



7,200 V to 14,400 V BIL 95 kV  
Indoor Voltage  
**JVM-95**  
60 Hz



JVM-95 voltage transformer

### Application

The Type JVM-95 is a metering voltage transformer to be used in conjunction with the Type JKM-95 current transformer for primary metering of underground distribution systems.

### Thermal Rating (Volt-Amperes)

55°C Rise above 30°C Ambient ..... 1,500

### Weight - Shipping/Net

(approximate, in pounds)

Transformer ..... 115/95

### Reference Drawings

Accuracy Curve ..... 9689241730

Outline Drawings:

One Primary Terminal/Ground Terminal .. 9930897

Two Primary Terminals ..... 9930896

Wiring Diagram ..... refer to page 42, figure 5

JVM-95 DATA TABLE										
Line-To-Line Circuit Voltage For Permissible Primary Connection			Transformer Rating ①		ANSI Accuracy Classification, 60 Hz			Catalog Number		
					Burden Per ANSI		Burden Impedance as at Rated Voltage but Operated at 58%			
Δ	Y	Y Only	Primary Voltage	Ratio	Operated at Rated Voltage	Operated at 58% of Rated Voltage		Rated Voltage ②	18-Inch Connector	24-Inch Connector
<b>With Two Insulated High Voltage Terminals</b>										
7,200	7,200	12,470	7,200	60:1	0.3 W, X, M, Y	0.3 W, X, M; 0.6 Y	0.3 W', X', M', Y'	765X022024	765X022034	765X022044
8,400	8,400	14,560	8,400	70:1	0.3 W, X, M, Y	0.3 W, X, M; 0.6 Y	0.3 W', X', M', Y'	765X022023	765X022033	765X022043
12,000	12,000	---	12,000	100:1	0.3 W, X, M, Y	0.3 W, X, M; 0.6 Y	0.3 W', X', M', Y'	765X022022	765X022032	765X022042
14,400	14,400	---	14,400	120:1	0.3 W, X, M, Y	0.3 W, X, M; 0.6 Y	0.3 W', X', M', Y'	765X022021	765X022031	765X022041
<b>With One Insulated High Voltage Terminal and One Grounded Terminal</b>										
---	7,200	12,470	7,200	60:1	0.3 W, X, M, Y	0.3 W, X, M; 0.6 Y	0.3 W', X', M', Y'	765X022028	765X022038	765X022048
---	8,400	14,560	8,400	70:1	0.3 W, X, M, Y	0.3 W, X, M; 0.6 Y	0.3 W', X', M', Y'	765X022027	765X022037	765X022047
---	---	12,000	12,000	100:1	0.3 W, X, M, Y	0.3 W, X, M; 0.6 Y	0.3 W', X', M', Y'	765X022026	765X022036	765X022046
---	---	14,400	14,400	120:1	0.3 W, X, M, Y	0.3 W, X, M; 0.6 Y	0.3 W', X', M', Y'	765X022025	765X022035	765X022045

Notes:

- ① For continuous operation, the transformer-rated primary voltage should not be exceeded by more than 10%. Under emergency conditions, over-voltage must be limited to 1.25 times the transformer primary-voltage rating.
- ② Operated at 58% of Rated Voltage; the prime symbol (') is used to signify that these burdens do not correspond to standard ANSI definitions.



Data subject to change without notice.

**Construction and Insulation**

Please refer to General Product Information, item 1.6.

**Core**

A formed, shell-type core of grain-oriented silicon steel is used.

**Coils**

FORMEX insulated wire is used in the primary and secondary coils. The primary is lattice-wound and cast in epoxy. The secondary coil is inside the primary, next to the core.

**Primary Terminals**

The high voltage primary terminals consist of either one or two fully-insulated and recessed primary terminals. Transformers with two terminals are for application connected line-to-line, while transformers with one terminal are for application connected line-to-ground. On the one terminal models, a removable ground strap is connected from the grounded neutral terminal to the baseplate. The ground strap itself is grounded.

A potential probe connector assembly is provided for making the connection between the potential and current transformers. This connector assembly should not be opened or closed while the unit is energized. It requires about a 100-pound force to pull the connector probe from the transformer to break the connection. Connectors are made up in various lengths for cabinet mounting.

**Secondary Terminals**

The secondary terminals are clamp-type terminals with large holes that accommodate a range of wire sizes from No. 14 AWG to No. 6 AWG. They are made of copper and have excellent durability and corrosion resistance. There is no need for crimp connectors, and the possibility of a stray wire strand causing a short circuit is practically eliminated. The terminals are located near the baseplate.

**Ground**

A ground terminal is provided just below the secondary compartment for making optional connections to one of the secondary terminals. This 1/4 inch-20 round-head terminal is welded to the baseplate bracket. It is furnished with a cup washer, flat washer, and lock washer.

An “L”-shaped bracket with two holes is welded to the baseplate for connection of the removable ground strap for line-to-ground potential connections. The bracket also provides another convenient means of attaching a ground to the baseplate.

**Polarity**

Primary and secondary terminals are marked H<sub>1</sub>, H<sub>2</sub>, and X<sub>1</sub>, X<sub>2</sub>, respectively. These markings are permanently molded into the butyl rubber in recessed letters, directly adjacent to the terminal location. The H<sub>1</sub> and X<sub>1</sub> markings are filled with weather-resistant white paint. The polarity is subtractive.

**Baseplate and Mounting**

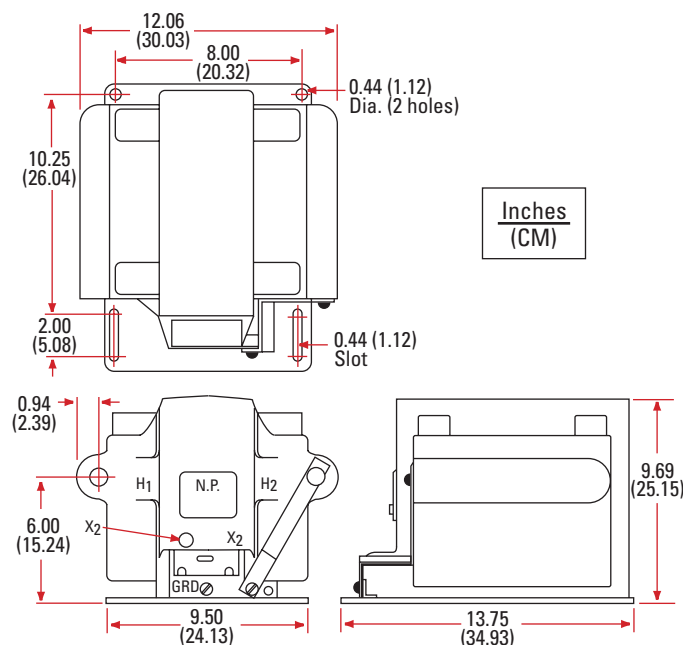
The base is made of heavy steel plate finished with a coat of black paint. It is provided with holes and slots to allow flexibility in mounting.

**Nameplate**

The nameplate is made of anodized aluminum. It is located just above the secondary terminal compartment and carries all the information prescribed by the ANSI standards in easy-to-read form. Provision is made for attaching a customer’s number tag.

**Maintenance**

Please refer to General Product Information, item 10.1 and pages 24-27.



JVM-95 mechanical dimensions

Data subject to change without notice.



**12,000 V to 24,000 V BIL 125 kV**  
**Indoor Voltage**  
**JVM-6**  
**60 Hz**



**JVM-6 voltage transformer**

**Application**

Designed for indoor service; it is a metering voltage transformer specifically designed to meet the requirements of 25 kV indoor metering applications.

**Thermal Rating (Volt-Amperes)**

55°C Rise above 30°C Ambient:

Single secondary ..... 750  
 Dual secondary ..... 700/450

**Weight - Shipping/Net**

(approximate, in pounds)

Transformer ..... 110/95

**Reference Drawings**

Accuracy Curve at 120 Secondary Volts, 60 Hz:

Single secondary ..... 9689241738  
 Dual secondary ..... 9932600221

Excitation Curve ..... 9689241788

Outline Drawings:

JVM-6 Transformer, Single Bushing Model:

Single secondary ..... 9935581  
 Dual secondary ..... 9935585

JVM-6 Transformer, Two Bushing Model:

Single secondary ..... 9935580  
 Dual secondary ..... 9935584

Wiring Diagram ..... refer to page 42, figure 5

Line-To-Line Circuit Voltage For Permissible Primary Connection			Transformer Rating ①		ANSI Accuracy Classification, 60 Hz			Catalog Number	
					Burden Per ANSI		Burden Impedance as at Rate Voltage but Operated at 58%		
Δ	Y	Y only ①	Primary Voltage Ratio	Operated at Rated Voltage	Operated at 58% of Rated Voltage	Rated Voltage ③		Single Bushing	Two Bushing
---	---	12,000/20,780	12,000 100:1	0.3 W, X, M, Y	---	---	766X021001	---	
---	---	14,400/24,940	14,400 120:1	0.3 W, X, M, Y	---	---	766X021002	---	
18,000	18,000 ②	---	18,000 150:1	0.3 W, X, M, Y	0.3 W, X, 1.2 M, Y	0.3 W', X', M', Y'	---	766X021003	
24,000	24,000 ②	---	24,000 200:1	0.3 W, X, M, Y	0.3 W, X, 1.2 M, Y	0.3 W', X', M', Y'	---	766X021004	
14,400	14,400 ②	---	14,400 120:1	0.3 W, X, M, Y	0.3 W, X, 1.2 M, Y	0.3 W', X', M', Y'	---	766X021009	
14,400	14,400	---	14,400 120:1 ⑥	0.3 W, X, M, Y ④	0.3 W, X, 1.2 M, Y	0.3 W', X', M', Y'	766X021011	---	
---	---	---	---	0.3 W, X ⑤	---	---	---	---	
14,400	14,400 ②	---	14,400 120:1 ⑥	0.3 W, X, M, Y ④	0.3 W, X, 1.2 M, Y	0.3 W', X', M', Y'	---	766X021012	
---	---	---	---	0.3 W, X ⑤	---	---	---	---	

Notes:

- ① These single bushing transformers are suitable for application to grounded systems for operation line-to-ground only. They will operate without damage connected line-to-ground at 1.40 times the transformer rated voltage for one minute. If it should become necessary to apply these grounded wye voltage transformers to an ungrounded system, refer to the nearest General Electric Sales Office for a system analysis study.
- ② These two bushing transformers are designed for operation line-to-line. They may also be operated line-to-ground or line-to-neutral at reduced voltage (58% rated voltage).

- ③ The prime symbol (') is used to signify that these burdens do not correspond to standard ANSI definitions.
- ④ Secondaries connected in parallel.
- ⑤ Individual secondaries or secondaries connected in a series.
- ⑥ Dual secondaries for individual, parallel or series operation (Catalog Numbers 766X021011 and 766X021012).



Data subject to change without notice.

**Construction and Insulation**

Please refer to General Product Information, item 1.4.

**Core**

Please refer to General Product Information, item 2.6.

**Coils**

Please refer to General Product Information, item 3.20.

**Primary Terminals**

The high-voltage primary terminals consist of tapped holes in the center of a flat boss with lock washer and round head  $\frac{3}{8}$ " 16 screws.

**Secondary Terminals**

The secondary terminals are conveniently located on the butyl rubber surface adjacent to the base plate. These terminals are clamp-type in fixed, round bronze posts with excellent durability and corrosion resistance. They have a large 0.275 inch diameter cross hole, making it easy to connect large or multiple secondary wires. The terminals are rugged and cannot be bent or fractured. A cupped setscrew provides an excellent electrical contact and increases the holding power without cutting the wire. The secondary terminals are molded in the butyl and held in place internally by a terminal block that prevents their rotation.

**Polarity**

Please refer to General Product Information, item 7.1.

**Nameplate**

The nameplate is laser engraved anodized aluminum. It is mounted on the base of the transformer. Provision is made for attaching the user's identifying tag.

**Baseplate and Mounting**

The base plate is made of heavy stainless-steel plate. A steel grounding lug is welded to the base plate, and provides a  $\frac{7}{16}$ " diameter hole for attaching the grounding connector.

The transformer can be mounted with the primary terminals in any position – up, down, or horizontal. Please refer to the Applications Information section of this volume.

**Ground terminal**

A ground terminal is provided adjacent to the secondary. Terminals for making connection at the option of the customer, to one of the secondary terminals. This  $\frac{1}{4}$ " - 20 terminal is welded to the base plate bracket and is furnished with round-head screw, cup washer, flat washer, and lock washer.

**Rating Identification**

The high-voltage rating is identified by large orange digits located on the butyl surface near the top of the transformer. This provides permanent identification that is clearly visible from a distance and is resistant to fading and abrasion.

**Maintenance**

Please refer to General Product Information, item 10.1 and pages 24-27.

**Note:**

1. Voltage transformers of this type are available for use in 50 Hz applications in many ratings. However, Industry Standard IEEE 57.13 to which we test transformers does not apply at 50 Hz. Customers who order voltage transformers for 50 Hz application should provide an accuracy specification including Burden VA and Power Factor. If an accuracy specification is not made available, the transformer(s) will be tested at 60 Hz with test burdens as defined in IEEE 57.13 for 60 Hz application.



**Indoor Voltage**  
**YT-1557**  
**Three-Phase Auxiliary** 



*YT-1557, 3-phase, auxiliary voltage transformer*

**Application**

The Type YT-1557 is an auxiliary three-phase voltage transformer designed for indoor use. It is intended for use with wye-wye voltage transformers with grounded primary neutral to provide polarizing voltage for directional ground relays. It is also used to provide 115 Volts line-to-line for directional-phase relays, where the voltage transformer output is 115 Volts line-to-neutral. The YT-1557 can also be used to provide line-to-line voltage of the correct phase relation to energize distance relays protecting a transmission line. It will also provide an output voltage 30 degrees displaced from the input voltage when synchronizing across a delta-wye or wye-delta power transformer.

**Important:** These transformers are for use with induction type voltage transformers and *should never be used with capacitance potential devices*, as they are not specifically fluxed for reduced risk of ferroresonance.

**Regulatory Agency Approvals**

UL Recognized ..... File E96707

**Weight - Shipping/Net**

*(approximate, in pounds)*

Transformer ..... 75/50

**Reference Drawings**

Characteristic Ratio-Broken

Delta Curve ..... 4109313

Autotransformer Ratio and Phase Angle ..... C4109316

Excitation Curve ..... C4109317

Outline Drawing ..... 4147168

Wiring Diagram ..... refer to page 45, figure 14

YT-1557 DATA TABLE				
Transformer Rating				Catalog Number
Volts		Volt-Ampere (Maximum) ①		
Primary	Secondary	Continuous	One Minute ①	
199/115 ③②	115	300	1,500	760X099001
Wye	Delta	300	1,500	

BURDEN AT 60 HZ					
Primary		Secondary		Volt-Ampere Rating	
Connection	Voltage	Connection	Voltage	Continuous	One Minute
N-H1-H2-H3 ④	199, 3-Ph, Line-line	X-X1	115, Broken Delta	300, X-X1	1,500
N-H4-H5-H6	115, 3-Ph, Line-line	X-X1	115, Broken Delta	200, X-X1	800
H1-H2-H3	199, 3-Ph, Line-line	XX1-X2-X3	115, 3-Ph, Line-line	120, 3-Ph	---
H4-H5-H6	115, 3-Ph, Line-line	XX1-X2-X3	115, 3-Ph, Line-line	75, 3-Ph	---

Notes:

① Refer to the Burden Table for complete list of ratings.

② Single-unit 115/66.5 Volts.

③ The core loss of the YT-1557 transformer is 5 W per phase.

④ With the connection and secondary burden, H4-H5-H6 will carry continuously an additional burden of 180 Volt-Amperes, 3-phase, at 115 Volts line-to-line.



*Data subject to change without notice.*

**Internal Burden**

Burden per phase (open-circuit impedance) ..... 20 VA at 0.4 PF and rated voltage

**Construction and Insulation**

The YT-1557 is of the dry-type construction. It is enclosed in a sheet-steel case, which is finished with a light-gray durable paint.

**Terminals**

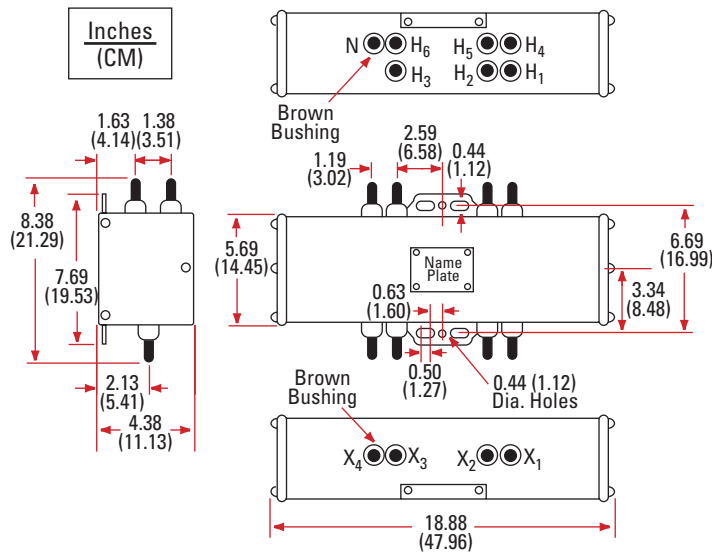
The primary and secondary terminals are fixed studs with porcelain bushings.

**Baseplate and Mounting**

Supports on the bottom of the case are arranged for either flat surface or pipe mounting in any position.

**Maintenance**

Please refer to General Product Information, item 10.1 and pages 24-27.



YT-1557 mechanical dimensions



Data subject to change without notice.