



# Indoor Voltage Transformer

## Model JVM-4C/5C, 75 - 110 kV BIL, 4200 - 14400 V



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

**Regulatory Agency Approvals**  
UL Recognized .....File E145172

**Thermal Rating (Volt-Amperes)**  
55 °C Rise above 30 °C Ambient .....1500VA  
30 °C Rise above 55 °C Ambient .....1000VA

**Weight**  
(approximate)  
Unfused .....85 lbs  
Fused .....88 lbs

**Reference Drawings**  
Outline: No Fuse .....0162C34325  
Single Fuse .....0162C34208  
Two Fuse .....0162C34329

**Frequency**  
60 Hz

| DATA TABLE                             |  |                     |       |  |                                  |   |        |                                    |                                       |                     |       |
|--|--|---------------------|-------|--|----------------------------------|---|--------|------------------------------------|---------------------------------------|---------------------|-------|
| Circuit Line to Line Voltage           | Permissible Transformer Primary Connection | Transformer Rating  |       | ANSI Accuracy Classification, 60 HZ (See Accuracy Specifications Overleaf) |                                  |   | BIL    | Catalog Number Supplied with Fuses | Catalog Number Supplied without Fuses | Primary Fuse Rating |       |
|  |  | Primary Voltage (1) | Ratio | Burden Per ANSI  |                                  | Operated at 58% Rated Voltage, but Burden Impedance as at Rated Voltage (2) |        |                                    |                                       | Amp                 | Volts |
|  |  |                     |       | Operated at Rated Voltage  | Operated at 58% of Rated Voltage |   |        |                                    |                                       |                     |       |
| <b>JVM-4C - Unfused</b>                |  |                     |       |  |                                  |   |        |                                    |                                       |                     |       |
| 4200                                   | Δ or Y                                     | 4200                | 35:1  | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 75 kV  | ---                                | 764X120001                            | ---                 | ---   |
| 7200                                   | Y only                                     | 4200(4)             | 35:1  | Accuracy 1   | ---                              | ---   | 75 kV  | 764X120023                         | 764X120025                            | 2 A                 | 7200  |
| 4800                                   | Δ or Y                                     | 4800                | 40:1  | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 75 kV  | ---                                | 764X120002                            | ---                 | ---   |
| 8320                                   | Y only                                     | 4800                | 40:1  | ---  | Accuracy 2                       | Accuracy 3  | 75 kV  | 764X120022                         | 764X120026                            | 2 A                 | 4800  |
| 7200                                   | Δ or Y                                     | 7200                | 60:1  | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 75 kV  | ---                                | 764X120003                            | ---                 | ---   |
| <b>JVM-4C - With One Primary Fuse</b>  |  |                     |       |  |                                  |   |        |                                    |                                       |                     |       |
| 4200                                   | Y only                                     | 4200(4)             | 35:1  | ---  | Accuracy 2                       | Accuracy 3  | 75 kV  | 764X120021                         | ---                                   | 2 A                 | 4800  |
| 7200                                   | Y only                                     | 4200(4)             | 35:1  | Accuracy 1   | ---                              | ---   | 75 kV  | 764X120023                         | 764X120025                            | 2 A                 | 7200  |
| 4800                                   | Y only                                     | 4800                | 40:1  | ---  | Accuracy 2                       | Accuracy 3  | 75 kV  | 764X120022                         | 764X120026                            | 2 A                 | 4800  |
| 7200                                   | Y only                                     | 7200                | 60:1  | ---  | Accuracy 2                       | Accuracy 3  | 75 kV  | 764X120024                         | 764X120028                            | 1 A                 | 7200  |
| <b>JVM-4C - With Two Primary Fuses</b> |  |                     |       |  |                                  |   |        |                                    |                                       |                     |       |
| 4200                                   | Δ or Y (3)                                 | 4200(4)             | 35:1  | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 75 kV  | 764X120012                         | ---                                   | 2 A                 | 4800  |
| 4200                                   | Y only (3)                                 | 4200(4)             | 35:1  | Accuracy 1   | ---                              | ---   | 75 kV  | 764X120015                         | 764X120018                            | 2 A                 | 7200  |
| 4800                                   | Δ or Y (3)                                 | 4800                | 40:1  | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 75 kV  | 764X120013                         | 764X120019                            | 2 A                 | 4800  |
| 7200                                   | Δ or Y (3)                                 | 7200                | 60:1  | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 75 kV  | 764X120016                         | 764X120020                            | 1 A                 | 7200  |
| <b>JVM-5C - Unfused</b>                |  |                     |       |  |                                  |   |        |                                    |                                       |                     |       |
| 7200                                   | Δ or Y                                     | 7200                | 60:1  | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 110 kV | ---                                | 765X121001                            | ---                 | ---   |
| 12470                                  | Y only                                     | 7200(4)             | 60:1  | Accuracy 1   | ---                              | ---   | 110 kV | 765X121048                         | 765X121056                            | 1 A                 | 14400 |
| 8400                                   | Δ or Y                                     | 8400                | 70:1  | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 110 kV | ---                                | 765X121002                            | ---                 | ---   |
| 14400                                  | Y only                                     | 8400                | 70:1  | Accuracy 1   | ---                              | ---   | 110 kV | 765X121049                         | 765X121057                            | 1 A                 | 14400 |
| 12000                                  | Δ or Y                                     | 12000               | 100:1 | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 110 kV | ---                                | 765X121003                            | ---                 | ---   |
| 14400                                  | Δ or Y                                     | 14400               | 120:1 | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 110 kV | ---                                | 765X121004                            | ---                 | ---   |
| <b>JVM-5C - With One Primary Fuse</b>  |  |                     |       |  |                                  |   |        |                                    |                                       |                     |       |
| 7200                                   | Y only                                     | 7200(4)             | 60:1  | ---  | Accuracy 2                       | Accuracy 3  | 110 kV | 765X121053                         | 765X121061                            | 1 A                 | 7200  |
| 12470                                  | Y only                                     | 7200(4)             | 60:1  | Accuracy 1   | ---                              | ---   | 110 kV | 765X121048                         | 765X121056                            | 1 A                 | 14400 |
| 14400                                  | Y only                                     | 8400                | 70:1  | Accuracy 1   | ---                              | ---   | 110 kV | 765X121049                         | 765X121057                            | 1 A                 | 14400 |
| 12000                                  | Y only                                     | 12000               | 100:1 | ---  | Accuracy 2                       | Accuracy 3  | 110 kV | 765X121050                         | 765X121058                            | 0.5 A               | 14400 |
| 14400                                  | Y only                                     | 14400               | 120:1 | ---  | Accuracy 2                       | Accuracy 3  | 110 kV | 765X121051                         | 765X121059                            | 0.5 A               | 14400 |
| <b>JVM-5C - With Two Primary Fuses</b> |  |                     |       |  |                                  |   |        |                                    |                                       |                     |       |
| 7200                                   | Δ or Y (3)                                 | 7200(4)             | 60:1  | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 110 kV | 765X121031                         | 765X121047                            | 1 A                 | 7200  |
| 12470                                  | Y only (3)                                 | 7200(4)             | 60:1  | Accuracy 1   | ---                              | ---   | 110 kV | 765X121027                         | 765X121043                            | 1 A                 | 14400 |
| 8400                                   | Δ or Y                                     | 8400                | 70:1  | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 110 kV | 765X121028                         | 765X121044                            | 1 A                 | 14400 |
| 14400                                  | Y only (3)                                 | 8400                | 70:1  | Accuracy 1   | ---                              | ---   | 110 kV | 765X121028                         | 765X121044                            | 1 A                 | 14400 |
| 12000                                  | Δ or Y (3)                                 | 12000               | 100:1 | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 110 kV | 765X121029                         | 765X121045                            | 0.5 A               | 14400 |
| 14400                                  | Δ or Y (3)                                 | 14400               | 120:1 | Accuracy 1   | Accuracy 2                       | Accuracy 3  | 110 kV | 765X121030                         | 765X121046                            | 0.5 A               | 14400 |

| Accuracy Specifications   |                                  |  |
|---------------------------|----------------------------------|--|
| Accuracy 1                | Accuracy 2                       | Accuracy 3   |
| Operated at Rated Voltage | Operated at 58% of Rated Voltage | Operated at 58% of Rated Voltage With Burden Impedance as at Rated Voltage (2) |
| 0.3 W, X, M, Y, Z; 1.2 ZZ | 0.3 W, X, M, Y; 1.2 Z            | 0.3 W', X', M', Y', Z'   |

**Notes:**

- (1) For continuous operation, the transformer's 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.
- (2) Note 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) Although these pairs of transformers have the same voltage rating and turns ratio and are otherwise identical, they are supplied with fuses having different voltage ratings to suit the operating voltage of the application. This difference necessitates a separate catalog number to differentiate them.

**Construction and Insulation**

The core and coil are placed in a mold and vacuum encapsulated in a polyurethane resin.

**Core**

The cores are made from high quality grain oriented silicon steel, which is annealed under rigidly controlled factory conditions.

**Primary Terminals**

Primary terminals on unfused units are 1/4"-20 brass screws with one flat-washer and one lock-washer. On fused units, primary terminals are 1/4"-20 brass studs with one flat-washer, one lock-washer and two nuts.

**Secondary Terminals**

Secondary terminals are compression type with a 0.275" cross-hole and a 1/4"-28 clamp screw. The terminal cover is made of transparent plastic. Provision is made for sealing the cover.

**Polarity**

The primary and secondary polarity markers H1, X1, are molded in the insulation. They are thus permanent and integral parts of the transformer and cannot be readily obliterated. They are also marked with white paint.

**Fuses**

Fuses are current limiting, "E" rated with 1.625" diameter caps. Clip centers are 11.50" for 14.4 kV fuses, 8.25" for 7.2 kV fuses, and 5.88" for 4.8 kV fuse.

**Nameplate**

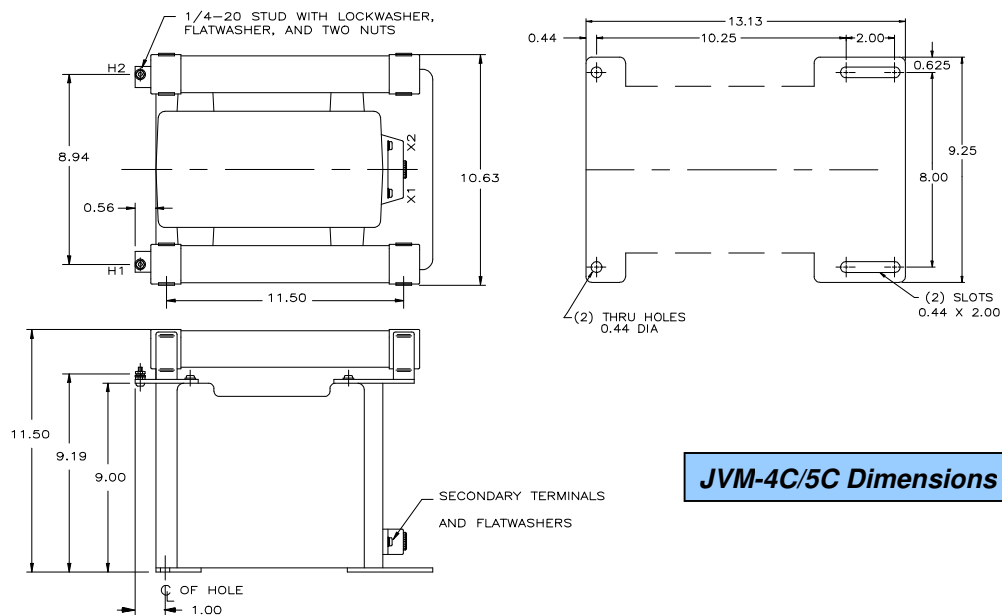
The nameplate is laser engraved aluminum. It is mounted on the base of the transformer. Provision is made for attaching the user's identifying tag.

**Maintenance**

These transformers require no maintenance, other than occasional cleaning.

*Data subject to change without notice*

To purchase or obtain more information about GE Instrument Transformer products, please call GE's Charlotte Service Center at 1-800-431-7867. Product information is also available on our web site at <http://www.GEIndustrial.com>. Click on the Product Index button (right column), select Transformers and follow the menus to **Product Information** or a **Solutions Advisor**



**JVM-4C/5C Dimensions**



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