GE
Grid Solutions

# Model JVM-4AC/5AC

**Indoor High Accuracy Voltage Transformer**
**75-110 kV BIL, 4,200-14,400 V**

## Application

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

## Thermal Rating

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

## Weight

Unfused .....85 lbs
Fused .....88 lbs

## Reference Drawings

Outline .....0162C33853

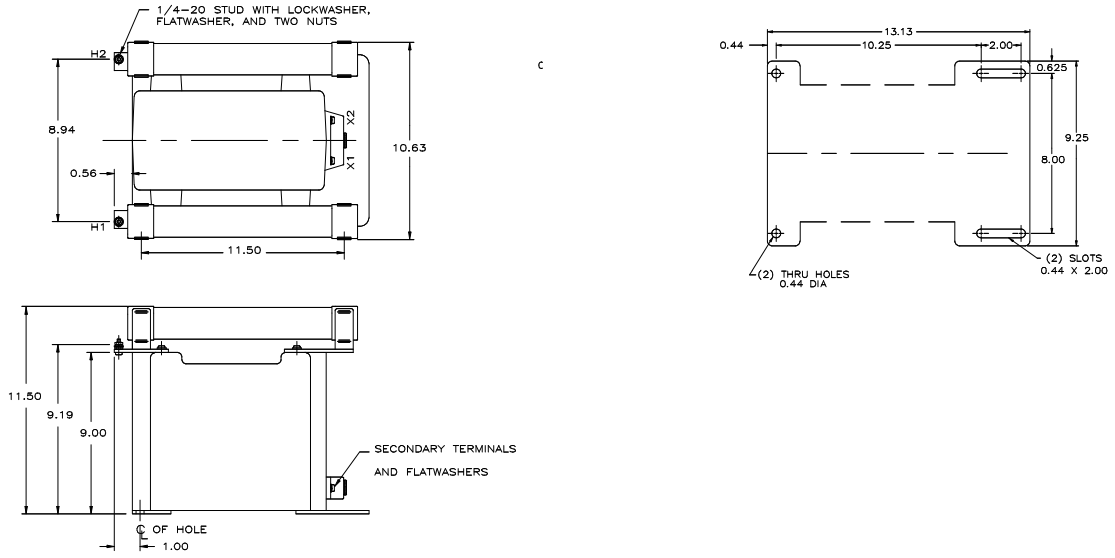
## Model JVM-4AC/5AC

| Circuit Line to Line Voltage | Permissible Transformer Primary Connection | Transformer Rating | | ANSI Accuracy Classification 60 Hz | | BIL | Catalog Number Supplied without Fuses | Primary Fuse Rating | |
|---|---|---|---|---|---|---|---|---|---|
| | | Primary [1] Voltage | Ratio | Burden Per ANSI | | | | Amps | Volts |
| | | | | Operated at Rated Voltage | Operated at 58 % of Rated Voltage | | | | |
| **JVM-4AC Unfused** | | | | | | | | | |
| 4,200<br>7,200 | Δ or Y<br>Y only | 4,200 | 35:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 75 kV | 764X121001 | --- | --- |
| 4,800<br>8,320 | Δ or Y<br>Y only | 4,800 | 40:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 75 kV | 764X121002 | --- | --- |
| 7,200 | Δ or Y | 7,200 | 60:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 75 kV | 764X121003 | --- | --- |
| **JVM-4AC With One Primary Fuse** | | | | | | | | | |
| 4,200 | Y only | 4,200 [4] | 35:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z [2] | 75 kV | 764X121010 | 2 A | 4800 |
| 7,200 | Y only | 4,200 [4] | 35:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 75 kV | 764X121011 | 2 A | 7200 |
| 4,800 | Y only | 4,800 | 40:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z [2] | 75 kV | 764X121012 | 2 A | 4800 |
| 7,200 | Y only | 7,200 | 60:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z [2] | 75 kV | 764X121013 | 1 A | 7200 |
| **JVM-4AC With Two Primary Fuses** | | | | | | | | | |
| 4,200 | Δ or Y only [3] | 4,200 | 35:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 75 kV | 764X121021 | 2 A | 4800 |
| 4,800 | Δ or Y only [3] | 4,800 | 40:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 75 kV | 764X121022 | 2 A | 4800 |
| 7,200 | Δ or Y only [3] | 7,200 | 60:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 75 kV | 764X121023 | 1 A | 7200 |
| **JVM-5AC Unfused** | | | | | | | | | |
| 7,200<br>12,470 | Δ or Y<br>Y only | 7,200 | 60:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123001 | --- | --- |
| 7,620<br>13,200 | Δ or Y<br>Y only | 7,620 | 63.5:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123002 | --- | --- |
| 8,400<br>14,400 | Δ or Y<br>Y only | 8,400 | 70:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123003 | --- | --- |
| 12,000 | Δ or Y | 12,000 | 100:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123004 | --- | --- |
| 13,200 | Δ or Y | 13,200 | 110:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123005 | --- | --- |
| 14,400 | Δ or Y | 14,400 | 120:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123006 | --- | --- |
| **JVM-5AC With One Primary Fuse** | | | | | | | | | |
| 7,200 | Y only | 7,200 [4] | 60:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z [2] | 110 kV | 765X123010 | 1 A | 7200 |
| 12,470 | Y only | 7,200 [4] | 60:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123011 | 1 A | 14400 |
| 7,620 | Y only | 7,620 | 63.5:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123012 | 1 A | 14400 |
| 8,400 | Y only | 8,400 | 70:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123013 | 1 A | 14400 |
| 12,000 | Y only | 12,000 | 100:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z [2] | 110 kV | 765X123014 | 1 A | 14400 |
| 13,200 | Y only | 13,200 | 110:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z [2] | 110 kV | 765X123015 | 1 A | 14400 |
| 14,400 | Y only | 14,400 | 120:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z [2] | 110 kV | 765X123016 | 1 A | 14400 |
| **4800JVM-5AC With Two Primary Fuses** | | | | | | | | | |
| 7,200 | Δ or Y only [3] | 7,200 | 60:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123020 | 1 A | 7200 |
| 12,000 | Δ or Y only [3] | 12,000 | 100:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123024 | 1 A | 14400 |
| 13,200 | Δ or Y only [3] | 13,200 | 110:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123025 | 1 A | 14400 |
| 14,400 | Δ or Y only [3] | 14,400 | 120:1 | 0.15 W, X, M, Y | 0.3 W, X, M, Y, Z | 110 kV | 765X123026 | 1 A | 14400 |

*Notes: Check notes on page 2*

*Notes:*
*(1) For continuous operation, the transformer's 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) With ANSI 69 Volt burden.*
*(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.*

## JVM-4AC/5AC Dimensions




### 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 white.

### 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.

### Nameplates

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.

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