

# MODEL JKM-3C

## Indoor Current Transformer,

Wound Primary 5 kV, 60 kV BIL, 5-800 A



REGULATORY AGENCY APPROVALS



E145172



LR89403

Manufactured to meet the requirements of ANSI/IEEE C57.13.

### Application

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

### Weight

(Approximate) ..... 30 lbs.

### Reference Drawings

Outline .....0163C34456

### Insulation level

5 kV; BIL 60 kV full wave

### Frequency

50-60 Hz

### Model JKM-3C Product Data

| CURRENT RATIO<br>(Amps)<br>Pri: Sec | ANSI ACCURACY CLASS, 60 Hz |             |             | CONTINUOUS THERMAL CURRENT RATING FACTOR |             | PRIMARY BAR SIZE |            | ONE SECOND THERMAL LIMIT, Amps. | MECH. LIMIT Amps | 753X140023 |
|-------------------------------------|----------------------------|-------------|-------------|------------------------------------------|-------------|------------------|------------|---------------------------------|------------------|------------|
|                                     | ANSI METER CLASS BURDEN    |             | RELAY CLASS | @ 30°C Amb.                              | @ 55°C Amb. | WIDTH Ins.       | THICK Ins. |                                 |                  |            |
|                                     | B0.1 TO B0.5               | B0.9 TO 1.8 |             |                                          |             |                  |            |                                 |                  |            |
| Single Ratio                        |                            |             |             |                                          |             |                  |            |                                 |                  |            |
| 5:5                                 | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 1.50             | 0.188      | 465                             | 550              | 753X140023 |
| 10:5                                | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 1.50             | 0.188      | 930                             | 1,100            | 753X140024 |
| 15:5                                | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 1.50             | 0.188      | 1,470                           | 1,650            | 753X140025 |
| 20:5                                | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 1.50             | 0.188      | 1,850                           | 2,200            | 753X140026 |
| 25:5                                | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 1.50             | 0.188      | 2,300                           | 2,750            | 753X140027 |
| 30:5                                | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 1.50             | 0.188      | 2,450                           | 3,300            | 753X140028 |
| 40:5                                | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 1.50             | 0.188      | 3,700                           | 4,400            | 753X140029 |
| 50:5                                | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 1.50             | 0.188      | 4,600                           | 5,500            | 753X140030 |
| 75:5                                | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 1.50             | 0.188      | 6,400                           | 8,250            | 753X140032 |
| 100:5                               | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 1.50             | 0.188      | 8,600                           | 11,000           | 753X140033 |
| 150:5                               | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 1.50             | 0.188      | 12,800                          | 16,500           | 753X140035 |
| 200:5                               | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 2.00             | 0.25       | 17,300                          | 22,000           | 753X140036 |
| 300:5                               | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 2.00             | 0.25       | 25,700                          | 33,000           | 753X140038 |
| 400:5                               | 0.3                        | 0.3         | T100        | 1.5                                      | 1.0         | 2.00             | 0.25       | 36,000                          | 44,000           | 753X140039 |
| 500:5                               | 0.3                        | 0.3         | T100        | 1.33                                     | 1.0         | 2.00             | 0.38       | 43,100                          | 47,000           | 753X140040 |



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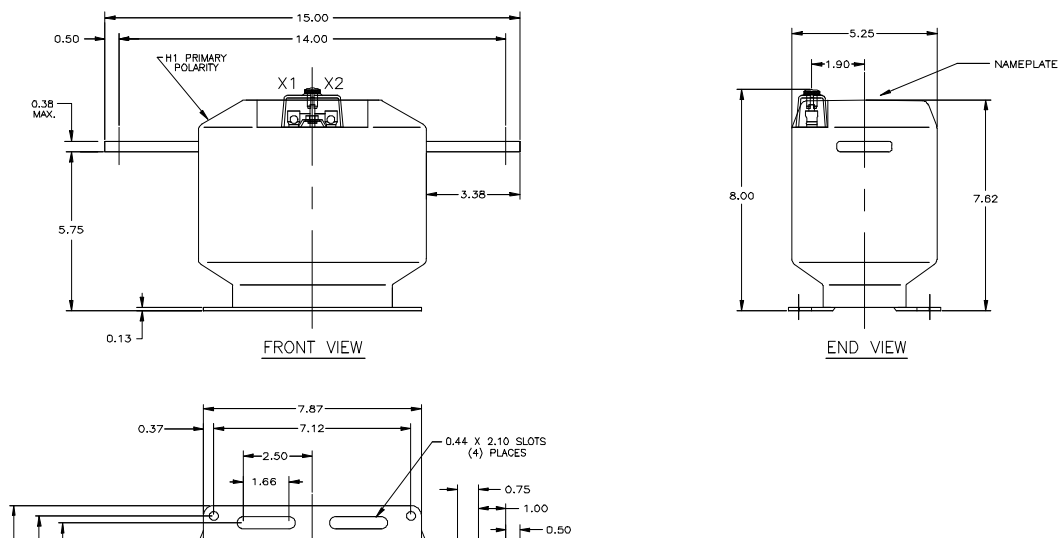
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## Model JKM-3C Product Data (cont'd)

| CURRENT<br>RATIO<br>(Amps)<br>Pri: Sec | ANSI ACCURACY CLASS, 60 Hz |                |                | CONTINUOUS<br>THERMAL<br>CURRENT RATING<br>FACTOR |                | PRIMARY BAR SIZE |               | ONE<br>SECOND<br>THERMAL<br>LIMIT,<br>Amps. | MECH.<br>LIMIT Amps | 753X140023 |
|----------------------------------------|----------------------------|----------------|----------------|---------------------------------------------------|----------------|------------------|---------------|---------------------------------------------|---------------------|------------|
|                                        | ANSI METER CLASS<br>BURDEN |                | RELAY<br>CLASS | @ 30°C<br>Amb.                                    | @ 55°C<br>Amb. | WIDTH<br>Ins.    | THICK<br>Ins. |                                             |                     |            |
|                                        | B0.1 TO<br>B0.5            | B0.9 TO<br>1.8 |                |                                                   |                |                  |               |                                             |                     |            |
| 600:5                                  | 0.3                        | 0.3            | T100           | 1.5                                               | 1.0            | 2.00             | 0.38          | 51,500                                      | 66,000              | 753X140041 |
| 800:5                                  | 0.3                        | 0.3            | T100           | 1.33                                              | 1.0            | 2.00             | 0.38          | 63,300                                      | 70,500              | 753X140042 |
| Tapped Secondary                       |                            |                |                |                                                   |                |                  |               |                                             |                     |            |
| 50/100:5                               | 0.3                        | ---            | T50            | 2.0                                               | 1.5            | 1.50             | 0.188         | 4,300                                       | 11,000              | 753X140016 |
|                                        | 0.3                        | 0.3            | T100           | 1.5                                               | 1.0            |                  |               | 8,600                                       |                     |            |
| 75/150:5                               | 0.3                        | ---            | T50            | 2.0                                               | 1.5            | 1.50             | 0.188         | 6,400                                       | 16,500              | 753X140017 |
|                                        | 0.3                        | 0.3            | T100           | 1.5                                               | 1.0            |                  |               | 12,800                                      |                     |            |
| 100/200:5                              | 0.3                        | ---            | T50            | 2.0                                               | 1.5            | 2.00             | 0.25          | 8,650                                       | 22,000              | 753X140018 |
|                                        | 0.3                        | 0.3            | T100           | 1.5                                               | 1.0            |                  |               | 17,300                                      |                     |            |
| 150/300:5                              | 0.3                        | ---            | T50            | 2.0                                               | 1.5            | 2.00             | 0.25          | 13,750                                      | 33,000              | 753X140019 |
|                                        | 0.3                        | 0.3            | T100           | 1.5                                               | 1.0            |                  |               | 27,500                                      |                     |            |
| 200/400:5                              | 0.3                        | ---            | T50            | 2.0                                               | 1.5            | 2.00             | 0.25          | 18,000                                      | 44,000              | 753X140020 |
|                                        | 0.3                        | 0.3            | T100           | 1.5                                               | 1.0            |                  |               | 36,000                                      |                     |            |
| 300/600:5                              | 0.3                        | ---            | T50            | 2.0                                               | 1.5            | 2.00             | 0.38          | 25,750                                      | 66,000              | 753X140021 |
|                                        | 0.3                        | 0.3            | T100           | 1.5                                               | 1.0            |                  |               | 51,500                                      |                     |            |
| 400/800:5                              | 0.3                        | ---            | T50            | 2.0                                               | 1.5            | 2.00             | 0.38          | 31,650                                      | 70,500              | 753X140022 |
|                                        | 0.3                        | 0.3            | T100           | 1.33                                              | 1.0            |                  |               | 63,300                                      |                     |            |

## JKM-3C Dimensions



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## Construction and Insulation

The core and coil assembly is encapsulated in vacuum cast polyurethane resin. This tough material has excellent electrical and mechanical properties over a wide temperature range, has low water absorption and is resistant to oil and a variety of chemicals

## Core and Coils

The core is made from high quality grain oriented silicon steel, annealed under rigidly controlled factory conditions. The primary winding consists of two coils in series, one around each leg of the core. This construction minimizes flux leakage thus improving the accuracy of the transformer. The secondary winding consists of two coils in parallel. Each coil is located inside the corresponding primary coil and surrounds one leg of the core.

## Terminals

Secondary terminals are tin plated brass, compression type with a 0.275" diameter cross-hole for wiring and a 1/4-28 clamp screw. A shorting device is provided and interlocked to the terminal cover. The terminal cover is made of a clear plastic. Provision is made for sealing the cover.

## Primary Bars

The primary terminals are tin plated copper bars molded into the cast resin insulation. They have one hole and one slot at each end, suitable for 1/2" bolts.

## 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.

## Nameplates

The nameplate is laser engraved aluminum. It is attached to the top of the unit and has provision for attaching the user's identifying tag. The nominal current rating is marked on the side of the unit in large numerals.

## Base plate and Mounting

The base plate is made of stainless steel; it is provided with four slots for mounting. The transformer may be mounted in any orientation.

## Maintenance

These transformers require no maintenance, other than occasional cleaning, if installed where air contamination is severe.

