CABINET - INSTRUMENT TRANSFORMER

Indoor - Outdoor

480 Volt - 400 Amperes Maximum

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USE : For commercial and industrial installations, purchased and installed by customer. To enclose 600 volt insulation class current and potential transformers on indoor or outdoor meter installations. For installing one double primary current transformer and one potential transformer.

STANDARD ORIGINATED	PREVIOUS STANDARD REVISION	PREVIOUS STANDARD NUMBERS
03-94	01-01-18	ER 15-468 (12-01-83)

REVISION SUMMARY: Convert to current format. Emphasize Erickson cabinets intended for outdoor use require additional purchase of vent kit.

REFERENCE(S): (All references are latest revision; unless noted)

National Standard(s)

a. National Electrical Code® (NEC®) 408.56: Minimum Spacings

b. NEC® 408.58: Panelboard Marking

SPECIFICATIONS:

1. GENERAL:

1.1. Cabinets shall meet all requirements of the above-referenced specifications, where applicable, unless otherwise noted below.

1.2. All current carrying parts shall be designed on the basis of 1,000 amperes per square inch capacity for copper and 750 amperes per square inch for aluminum.

1.3. All dimensions shown are minimum.

1.4. Cabinet shall be constructed of aluminum, galvannealed steel, or cold-rolled steel with polyurethane enamel finish.

1.5. Cabinets shall be furnished completely assembled with all items as shown on drawings. NIPSCO shall furnish current and potential transformers.

1.6. Spacing between opposite polarity live parts and between live parts and ground, when mounted on the same surface, not over 600 volts, shall be a minimum of two inches and one inch, respectively.

1.7. Cabinets shall be marked by manufacturer with voltage, current rating, number of phases for which they are designed, and manufacturer's name or trademark so as to be visible after installation, without disturbing interior parts or wiring.

1.8. Cabinet shall be designed for double-bar current transformer.

1.9. For use on single-phase 3-wire 480-volt; 400 ampere maximum.

2. CABINET:

2.1. Configuration:

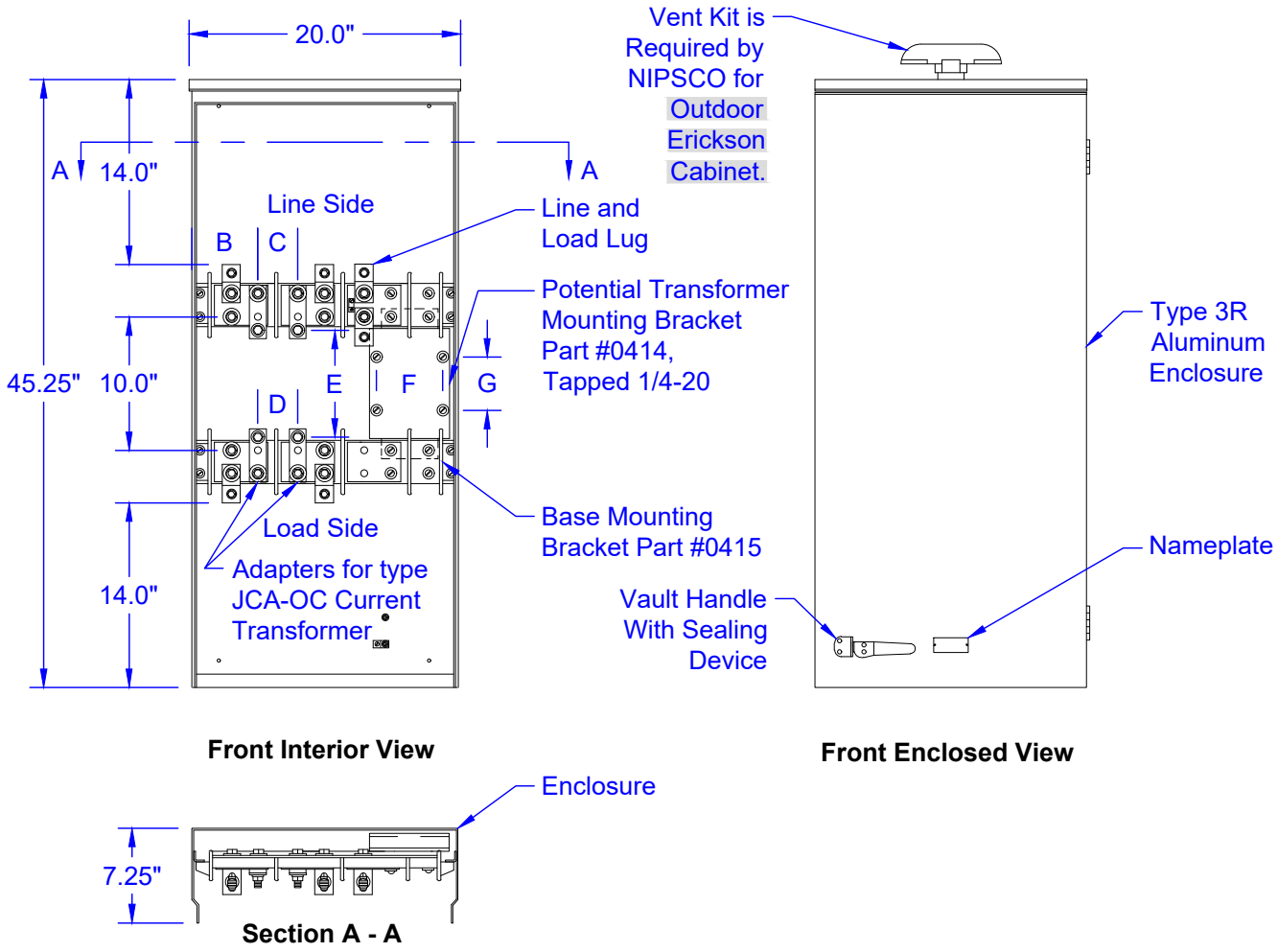

Figure 2.1

2.2. Minimum Dimensions:

Lugs (in)					
B	**C**	**D**	**E**	**F**	**G**
10	4-1/2	3-1/8	2-1/2	7-5/8	5

Table 2.2

2.3. Material: Minimum 14-gauge galvannealed or cold-rolled steel, or aluminum minimum 0.10" for enclosure and 0.080" for door.

2.4. Front door or cover shall be hinged on the right (looking from the front of the cabinet) and equipped with sealing device that ensures one padlock seal will effectively prevent door or cover from opening.

2.5. Each line and load terminal provided shall accept one 600 KCM-#4 or two 250 KCM-1/0 copper or aluminum conductors per phase and neutral.

2.6. Cabinet shall accept type JCA-OC current transformer (use adapters provided) or type JAM-O current transformer (adapters removed).

2.7. Current transformers and potential transformers are provided by NIPSCO.

2.8. Cabinet shall be rated NEMA 3R.

2.9. Connections:

2.9.1. Line connections shall be made on top connection plate.

2.9.2. Load connections shall be made on bottom connection plate.

2.10. Current Transformer (CT) Primary Connection Plate:

2.10.1. Material: Copper or tin plated aluminum1/4" × 3" × 4" .

2.10.2. Drilled and tapped for 1/2" - 13 current transformer, cable lug, and by-pass jumper bolts and one #10 - 24 potential tap screw

2.10.3. Four plates required

2.11. Neutral Connection Plate:

2.11.1. Material: Copper or tin plated aluminum 1/4" × 1-3/4" × 3"

2.11.2. Drilled and tapped for 1/2" - 13 cable lugs

2.11.3. One required

2.12. Potential Transformer Mounting Bracket:

2.12.1. Material: Steel or aluminum 6" × 14-1/2"

2.12.2. Drilled and tapped for 1/4" - 20 bolts as shown in drawing (four holes required)

2.13. Lugs:

2.13.1. One-hole cable terminal lug furnished for #4-600 KCM copper or aluminum

2.13.2. Six required

2.14. Mounting Bolts:

2.14.1. For CT's:

2.14.1.1. Material: Steel, zinc-plated, 1/2" - 13 thread × 2-1/2" long with flat washer and hex head nut

2.14.1.2. Four required

2.14.2. For Lugs:

2.14.2.1. Material: Steel, zinc-plated, 1/2" - 13 thread × 2-1/2" long with flat washer and hex head nut

2.14.2.2. Six required

2.14.3. For Potential Tap:

2.14.3.1. Material: Steel, zinc-plated, #10 - 24 × 1/2" with washer

2.14.3.2. Four required

2.15. Equipment Ground Lug:

2.15.1. Material: Copper or aluminum #14-2/0 one-hole cable terminal lug furnished.

3. OUTDOOR CABINET:

3.1. Door or front cover shall be rain-tight; top shall be protected with rain shield.

3.2. NIPSCO requires vendor specific vent kit be purchased and installed per vendor specification on Erickson cabinets intended for outdoor use.

3.3. All conduit shall enter cabinet through sides, bottom, or rain-tight top hub.

3.4. All hardware shall be rust resistant.

4. APPROVED MANUFACTURERS:

Manufacturer	Catalog Number
Erickson Electrical Equipment 475 Bonnie Ln. Elk Grove Village, Illinois	ENI 480-1-C (Note 1)
Milbank Manufacturing Co. 4801 Deramus Kansas City, Missouri 64141	NIPM-463DBCT
Note-1: For outdoor cabinets, Erickson cabinets require purchase and installation of a vent kit. Milbank cabinets do not require additional vent kit.	

Table 4