



959 Elisabella Street  
Sudbury, Ontario, Canada  
P3A5K1

PH: 705-566-7443  
Fax: 705-566-4202

- a) Three-pole, high-voltage, load-interrupter switch with or without power fuses.
- b) Dry-type power transformer.
- c) Secondary power-distribution breakers.
- d) Control and protection specific to the application.

## **1. CODES, STANDARDS, & REGULATIONS**

Portable mine power centres are designed and built to meet or exceed CSA standard CAN3-M421-93.

## **2. ENCLOSURE**

- Standard, mine duty-NEMA 12 except louvered doors on transformer section.
- Portable, tub type, flat bottom.
- Approximate overall dimensions: 190”L x 60”W x 72”H.
- Approximate weight: 15000 lbs.
- Main frame 4” x 2” x 1/4”, Class G40.21 50W 1987, HSS rectangular tubing.
- A36 hot-rolled, mild-steel plate, sized as follows:
  - 1/2” flat base plate.
  - 1/4” removable top covers as applicable.
  - 3/16” outer skin and internal partitions.
- Plated steel hinges, latches, and hardware.
- Finish: entire enclosure sandblasted
- Colour: standard all grey interior and exterior.
- Cover plates or cable connectors are supplied for incoming and outgoing cables.
- All component mounting holes are drilled and tapped. Components are mounted with machine grade bolts.

## **3. DOORS**

Access doors are 10 ga and have concealed hinges, hardware, and over-centre latches. Key-interlocked systems, provisions for padlocking. All hardware is stainless steel when equipment is in wet or humid environments. Transformer doors have pressed-in louvers, rolled edges, and are hinged and bolted.

All other doors are formed, gasketed, and hinged. Where applicable, doors have wired-glass viewing windows. Replaceable, Lexan viewing windows are optional.



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## 4. WIRING

All wiring and buswork is copper. Extra-flexible cable with crimp lugs and bolted connections are used for all 5 to 15-kV wiring. High-voltage wiring is secured to withstand both thermal and mechanical stresses. Low-voltage wiring is RW90 which is 1000-V rated. Control wiring is #14 TEW and is colour coded to its use.

Wiring to components is terminated with compression lugs. Wires are bundled and tied into custom harnesses for neatness, reliability, and ease of duct or bundle maintenance.

Control wiring is labelled with slide-on markers or heat shrink permanent markers. A continuous copper grounding bus extends the full length of the enclosure and is fitted with necessary hardware for customer connections.

## 5. NAMEPLATES

Doors, receptacles, assemblies, and major components are labelled with Lamicoid nameplates. Customer equipment numbers are added to a sidewall if desired. All high-voltage compartments are labelled with appropriate warning labels.

## 6. HIPOT AND HV TESTING

Power centres are given an extensive quality assurance inspection. Control operation is verified and all functions are tested.

## 7. DOCUMENTATION

Complete documentation is included with each power centre. This includes one set of prints and a manuals containing schematics, layouts, wiring diagrams, bill of material, spare-parts list, and technical information on any purchased equipment. The drawings are done on AutoCAD and are available on disk upon request.

## 8. COMPONENTS OF MINE POWER CENTERS

**High Voltage Section:** High voltage fused switch interlocked with the switch door.

**Transformer Section:** Step down transformer, lightning arresters, neutral-grounding resistor, transformer temperature indicating relay.

**Low voltage section:** Distribution breakers, ground fault monitors, ground fault test circuits, amperage displays, voltage displays.

To order your customized Mine Power Center, call **KPI sales at 705. 566-7443**