

# M-2900A Tapchanger Control Cabinet



- New installations or retrofit for Cooper, General Electric, Siemens and Howard regulators
- Available in the following construction materials:
  - Molded Lexan® (NEMA® 3RX rated)
  - Cold Rolled Steel (NEMA® 3 rated)
  - Stainless Steel (NEMA® 3 rated)
- UV resistant
- Locking clasps accept 3/8" hasp locks



#### Construction

Cold Rolled Steel or Stainless Steel (304)

- Body and door fabricated from 14/16 gauge steel. Also available in Stainless Steel (304)
- · Continuously welded seams ground smooth
- · Closed cell neoprene gasket
- · External mounting bracket fits all regulator tank styles
- · Stainless steel door hinges and latches
- Enclosure door accommodates optional power supplies, communications devices and antennas
- External Grounding stud provided

#### Molded Lexan

- · Body and door fabricated from molded Lexan
- · Silicone gasket
- · External mounting bracket fits all regulator tank styles
- · Integrated non-metallic door hinges with stainless steel hinge pin
- Enclosure door accommodates optional power supplies and communications devices
- · External Grounding stud provided

#### **Finish**

Cold Rolled Steel or Stainless Steel (304)

- ANSI-70 gray polyester powder coat inside and out over phosphatized surfaces
- NEMA/EEMAC Types 3,12 & 13

## **Applications**

Designed for use as a direct regulator control cabinet replacement for:

- Cooper Industries
- · General Electric
- · Siemens
- Howard Industries

The M-2900A Cabinet can be configured with the optional support equipment to match the existing control application and environment or supplied completely empty. See the options section for details regarding the optional equipment available.

## **Optional Equipment**

- M-6200A Digital Voltage Regulator Control
- M-2001C or M-2001D Digital Tapchanger Control mounted in an Adapter Panel
- Input Voltage Transformer Isolation Switch (knife switch)
- Input Current Transformer Shorting Switch (knife switch)
- Ratio Correcting Transformer
- Motor Power Correction Transformer
- Motor Capacitor
- Control Cable available in 10', 20', 35', 50' or custom cable lengths
- Cabinet Heater/Thermostat
- Radio
- Antenna
- Lightning Surge Protection
- Battery Backup
- · Battery Charger

## **Physical**

Cold Rolled Steel or Stainless Steel (304)

**Size:** 22.63" high x 11.38" wide x 10.09" deep (57.5 cm x 28.91 cm x 25.63 cm)

**Approximate Weight:** 17 lbs, 13 oz ( 8.09 kg)

**Approximate Shipping Weight:** 25.29 lbs, (11.48 kg)

**Approximate Weight with M-6200A Digital Voltage Regulator Control:** 23 lbs, 8 oz (10.66 kg) **Approximate Weight with M-2001 Series Digital Tapchanger Control:** 27 lbs, 4 oz (12.36 kg)

**Approximate Shipping Weight with M-6200A/M-2001:** 36 lbs, (16.33 kg)

Molded Lexan Cabinet

**Size:** 18.38" high x 12.43" wide x 7.81" deep (46.7 cm x 31.6 cm x 19.84 cm)

**Approximate Weight:** 10 lbs, 8 oz (4.76 kg) **Approximate Shipping Weight:** 12 lbs (5.44 kg)

Approximate Weight with M-6200A Digital Voltage Regulator Control: 18 lbs (8.17 kg)

Approximate Weight with M-2001 Series Digital Tapchanger Control: 23 lbs (10.44 kg)

Approximate Shipping Weight with M-6200A/M-2001: 32 lbs, (14.53 kg)

#### **Warranty**

The M-2900A Tapchanger Control Cabinet is covered by a ten year warranty from date of shipment.

## **Optional Battery Cell Pack**

- CYCLON® Battery BC Single Cell Model Number 0850-0108

Voltage: 12.0 Vdc Capacity: 8.0 Ah



This product contains a non-spillable, sealed pure lead battery cell pack, which has been accepted by the Department of Transportation in compliance with tests found in 49 CFR §173.159(d). The rugged construction of the battery pack is rated for -65° C to +80° C (-85° F to +176° F) service environment. The battery pack is supplied in a charged condition capable of extremely high energy short circuit currents.

## Required Storage Parameters to Maintain Charge Capacity

During storage batteries lose charge capacity by self-discharge. The recommended recharge interval is every 6 months from date of receipt. To maintain charge capacity, check the charge every 6 months.

Temperature: 25° C

Humidity: Maximum relative humidity 80% for temperatures up to 31° C, decreasing to 31° C linearly to 50% relative humidity at 40° C.

**Environment:** Storage area to be free of dust, corrosive gases, flammable materials, dew, percolating water, rain and solar radiation.

## Caution



No smoking, no naked flames, no sparks



Electrical hazard



Electrolyte is corrosive



Shield eyes



Danger



Clean all acid splash in eyes or on skin with plenty of clean water. Then seek medical help. Acid on clothing is to be washed with water.



Read instructions



Recycle scrap batteries. Contains lead



Warning: Risk of fire, explosion, or burns. Do not disassemble, heat above 60°C, or incinerate. Avoid any

short circuit. Metallic parts under voltage on the battery, do not place tools or items on top of the battery.

California Proposition 65 Warning – Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

# **Installation of Optional Battery Cell Pack**

The optional Battery Cell Pack is shipped loose with the M-2900A cabinet. The following instructions describe the installation of the Battery Cell Pack.

▲ CAUTION: Observe all Cautions previously stated when installing the Battery Cell Pack.

▲ CAUTION: Do not short the Positive and Negative Terminals when installing the Battery Cell Pack. The Battery Cell Pack is capable of extremely high energy short circuit currents.

- Install the Battery Cell Pack as shown in Figure 1, with the Negative Terminal towards the bottom of the cabinet door and the Positive Terminal towards the top of the cabinet door.
- 2. Fasten the restraining straps by threading the small end of the strap through the second slot of the other end of the strap (Figure 2), then pull tight (about 15 lbs). Thread the small end back through the same slot, this will keep it out of the way and make it easier to remove in the future.
- Connect the Negative marked White wire to the Battery Cell Negative Terminal and the Positive marked Red wire to the Battery Cell Positive Terminal.



Figure 1 Battery Cell Pack Orientation



Figure 2 Battery Cell Pack Restraining Straps

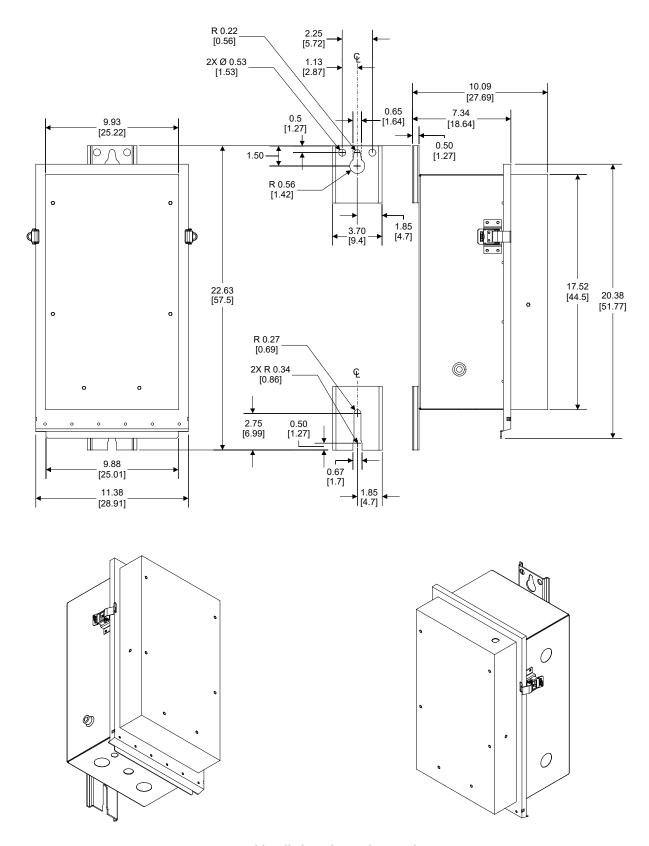


Figure 3 Cold Rolled Steel/Stainless Steel Dimensions

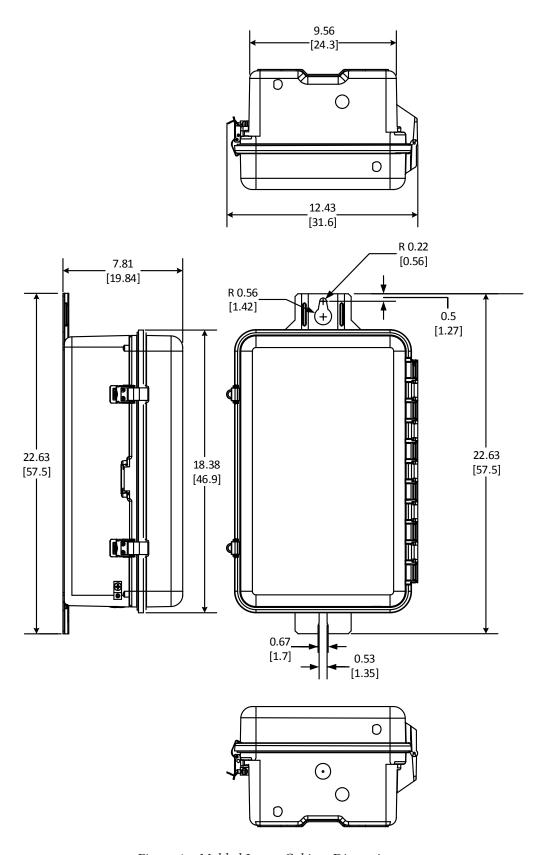


Figure 4 Molded Lexan Cabinet Dimensions

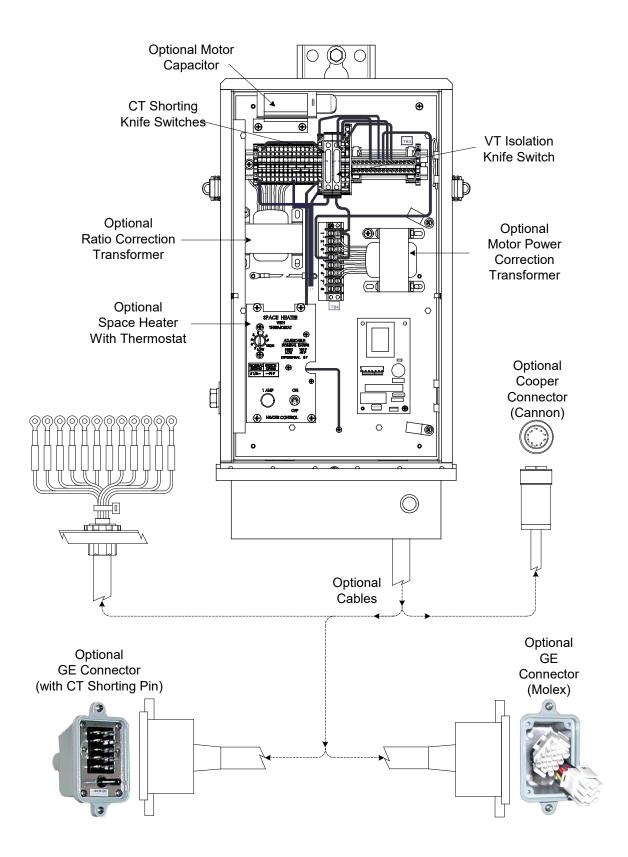


Figure 5 M-2900A Cold Rolled Steel/Stainless Steel Cabinet with Optional Features

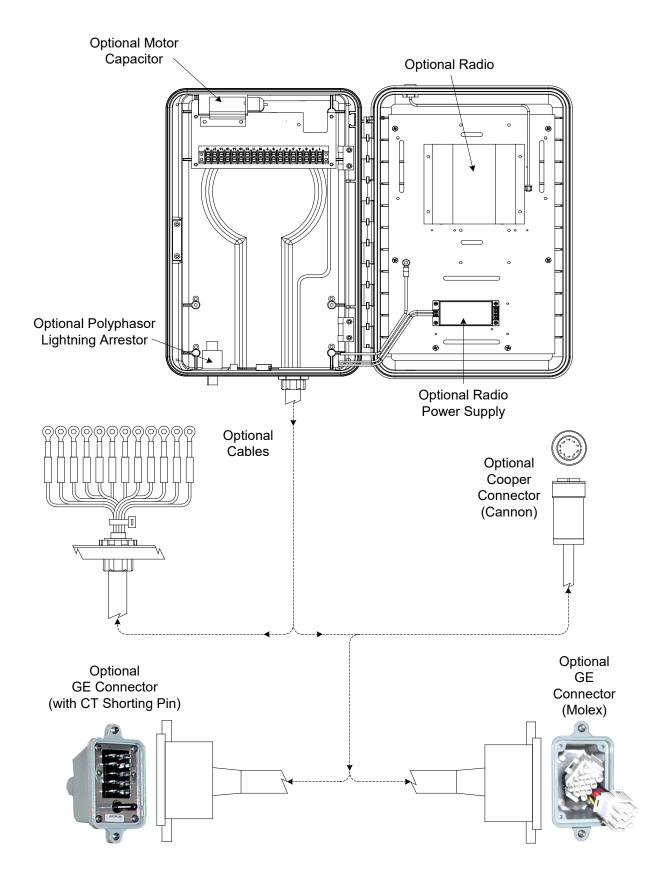


Figure 6 M-2900A Molded Lexan Cabinet with Optional Features



Figure 7 M-2900A Cold Rolled Steel or Stainless Steel Cabinet Equipped With Optional M-2001D Digital Tapchanger Control



Figure 8 M-2900A Cold Rolled Steel or Stainless Steel Cabinet Equipped With Optional M-6200A Digital Voltage Regulator Control



Figure 9 M-2900A Lexan Cabinet Equipped With Optional M-6200A Digital Voltage Regulator Control

## **TRADEMARKS**

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Specification subject to change without notice. Beckwith Electric has approved only the English version of this document.

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