

# 4292P Yardmaster Pup

## Lifting Magnet Controller for Scrap Yards

The Type 4292P Yardmaster Pup Controllers incorporate heavy-duty time proven components arranged to provide optimum control of your lifting magnets. A mechanically rugged high thermal capacity discharge varistor assembly is permanently connected in parallel with the magnet and provides a safe discharge path for the stored magnetic energy. With Yardmaster Pup magnetic controllers induced voltage cannot return to the line, permitting rectified power supplies to be used without the added expense of special protective loads or bypass circuits.

### Benefits

- Streamlined installation by utilizing less hardware
- Hardware captively installed at manufacturing facility
- Straightforward installation as armor rods not required
- Allows hot stick installation
- Features a press-fit padded design to minimize conductor stress

### Features

- Automatic Discharge
- Rated 5-50 amps DC
- Front-Wired, Front-Removable components
- Mechanically interlocked "Lift" and "Drop"
- NEMA rated mill duty contactors
- Permanently connected 700V discharge path completely independent from the line that protects magnet and generator
- High-Thermal capacity varistor discharge path
- Peak magnet induced voltage limited to under 700 volts
- Long electrical contact life
- Minimum maintenance
- Dribble control standard on 115V & 230V controllers
- Ventilated Indoor/Outdoor NEMA 3R Enclosure

### Application

The Type 4292P Yardmaster Pup Controllers are suited for many uses from light to medium scrap handling applications. They may be used with all types and makes of DC lifting magnets.

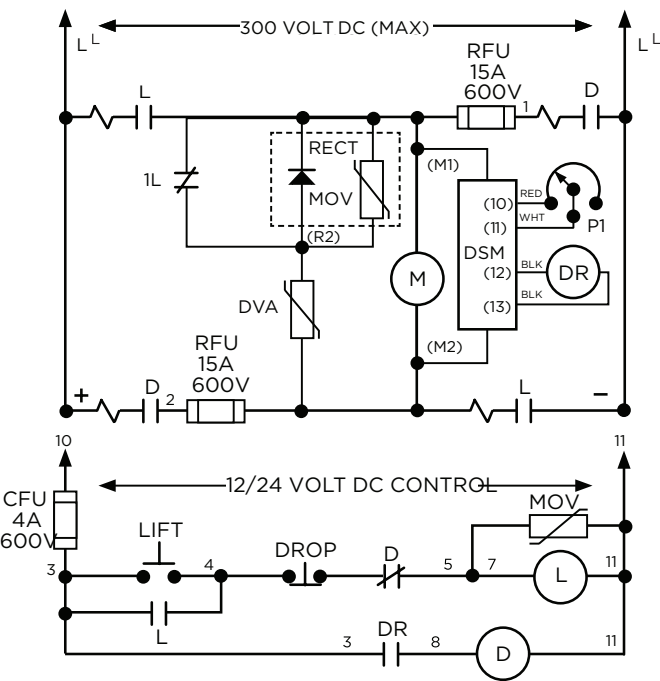
### Automatic Discharge Type Controllers

The Type 4292P Yardmaster Pup Automatic Discharge Type Lifting Magnet Controllers provide a fast and clean release of magnet loads by applying full voltage reverse current to the magnet. The full voltage reverse current feature permits the operator to promptly return for another lift.

The drop contactor is under the control of the operator's Master Switch and the Discharge Sensor Module (DSM). When the operator's Master Switch signals the magnet controller to drop the load, the Lift contactors (L) open. The stored magnet energy is dissipated in the discharge varistor. When the discharge voltage declines to approximately 300V, the DSM energizes the Drop Relay (DR) which in turn enables the Drop Contactor (D) to close applying full voltage reverse current to the magnet and begins the adjustable time reverse current cycle. After completion of the timed reverse current cycle, the drop relay and the drop contactor are de-energized.

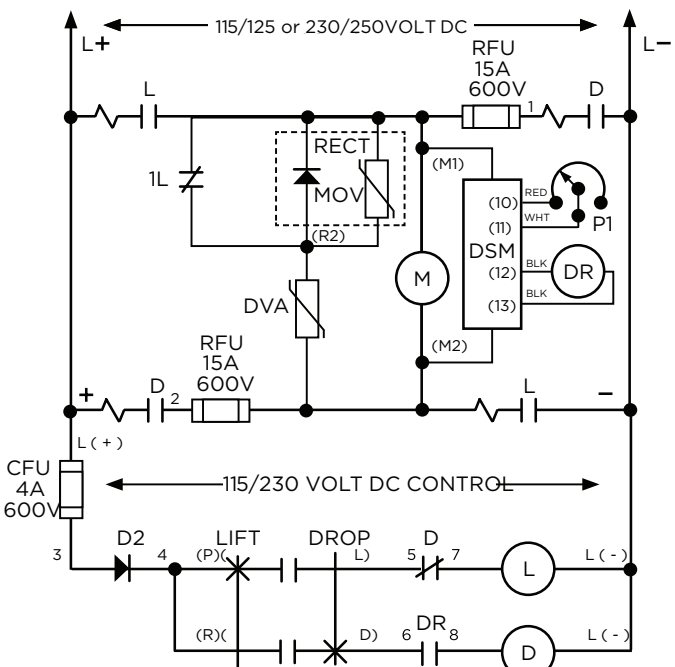


Elementary Schematic  
for 12 or 24 VDC Push Button Control



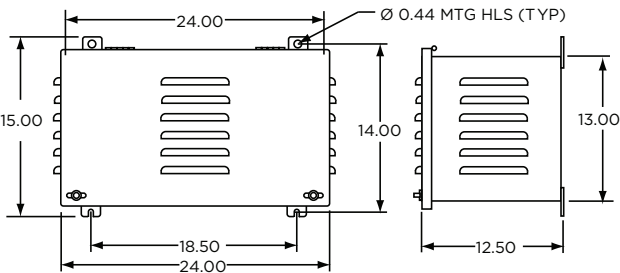
- DVA..... Discharge Varistor Assembly  
MOV..... Control Suppressor  
CFU..... Control Fuse  
RFU..... Drop Fuse  
RECT./MOV..... Rectifier / MOV Assembly  
P1..... Potentiometer Assembly  
DR..... Drop Relay  
DSM..... Discharge Sensor Module  
D..... Drop Contactor  
L..... Lift Contactor

Elementary Schematic  
for 115 or 230 VDC Master Switch Control



- D2..... Diode  
DVA..... Discharge Varistor Assembly  
MOV..... Control Suppressor  
CFU..... Control Fuse  
RFU..... Drop Fuse  
RECT./MOV..... Rectifier / MOV Assembly  
P1..... Potentiometer Assembly  
DR..... Drop Relay  
DSM..... Discharge Sensor Module  
D..... Drop Contactor  
L..... Lift Contactor

Cabinet Dimensions



Approximate Shipping Weight 100lbs.

Part Numbers

Part Number	Control Circuit Voltage
HC4292001301	24 VDC
HC4292001303	12 VDC
HC4292001305	230 VDC
HC4292001307	115 VDC
HCTA4215	Master Switch for 115/230 VDC Operation

Controller ampacity is based on being used with a 50% duty magnet in a 40°C ambient.