HUBBELL®
Industrial Controls

SELL SHEET

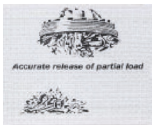
4292 Yardmaster

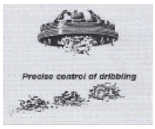
Compact Magnet Controller for Scrap Yards

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 magnet 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.

Features

- Automatic Discharge
- Rated 250 VDC @ 5-100 amps
- 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
- Ventilated Indoor/Outdoor NEMA 3R Enclosure





Application

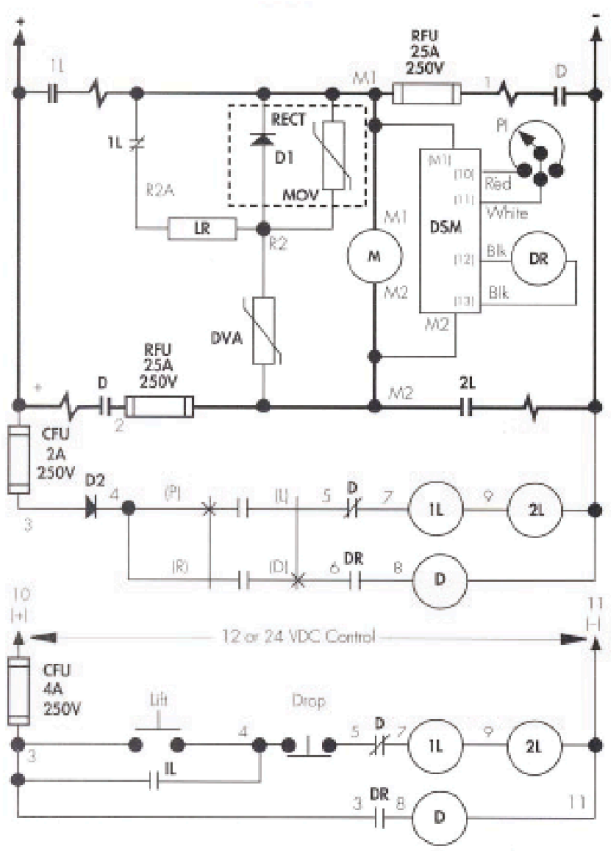
The The Type 4292 Yardmaster Controllers are suited for many uses from light scrap handling to the handling of heavy billets or plates. It may be used with all types and makes of DC lifting magnets.

Automatic Discharge Type Controllers

The Type 4292 Yardmaster Automatic Discharge Type Lifting Magnet Controller provides a fast and clean release of mag-net loads by applying full voltage reverse current to the magnet. The full voltage re-verse current feature permits the operator to promptly return for another lift.

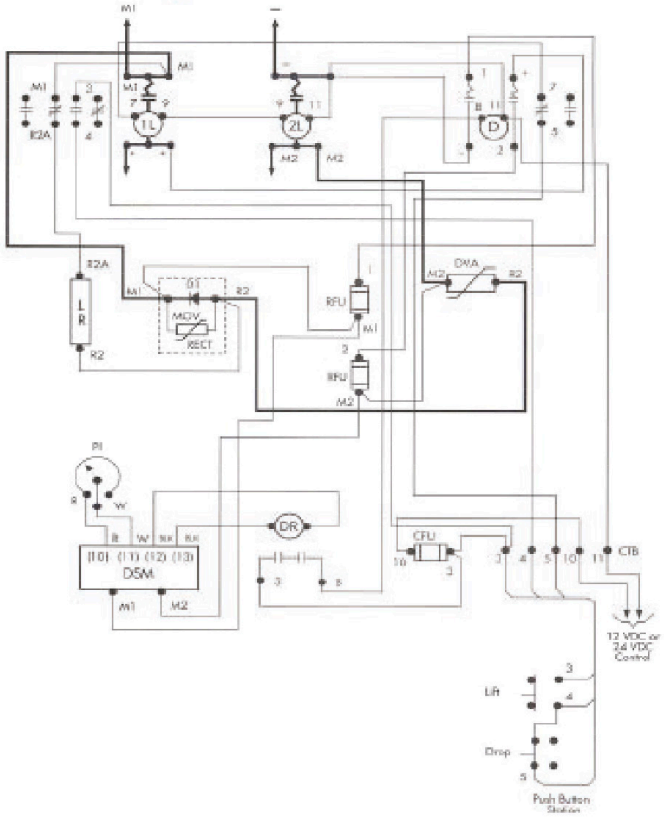
The drop contactor is under the control of the operator’s Master Switch and the dis-charge sensor module (DSM). When the operator’s Master Switch signals the magnet controller to drop the load, the “Lift” contactors (L) open. The stored magnet energy is dissipated in the dis-charge varistor. When the 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 cur-rent to the magnet and begin the adjust-able time reverse current cycle. After the completion of the timed reverse cycle the drop relay and drop contactor are deenergized.

Schematic Diagram



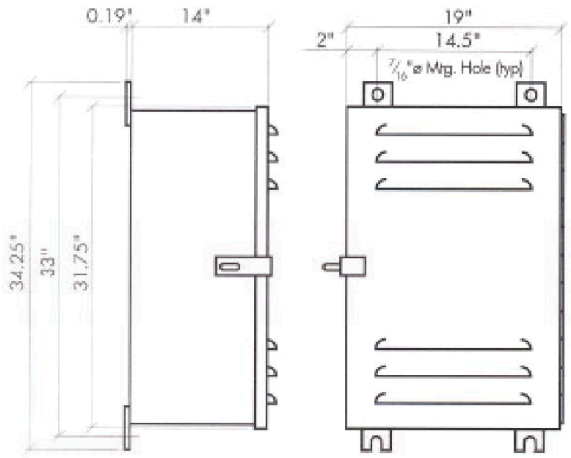
LR..... Limiting Resistor
D2..... Control Circuit Diode
DVA..... Discharge Varistor Assembly
TB1..... Control Terminal Board
CFU..... Control Fuse
RFU..... Drop Fuse
RECT..... Rectifier/MOV/Assembly

Panel Layout



P1..... Potentiometer Assembly
DR..... Drop Relay
DSM..... Discharge Sensor Module
D..... Drop Contractor
1L..... Lift Contactor
2L..... Lift Contactor

Cabinet Dimensions



Approximate Shipping Weight 150lbs.

Part Numbers

Part Number	Control Circuit Voltage
HC91883202	230 VDC
HC91883204	24 VDC
HC91883206	12 VDC
HCTA4215	Master Switch for 230 VDC Operation

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

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