

# Crane Control Class 6815

CRANE CONTROL  
CLASS 6815

Catalog

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The Electric Controller and  
Manufacturing Company, LLC

## Crane Control Class 6815

### Type A Lifting Magnet Controllers



Class 6815 Type A130  
Controller

#### TYPE A LIFTING MAGNET CONTROLLERS FOR 31 TO 130 AMPERE GENERATOR POWERED MAGNETS

##### Pricing and Ordering Information

Typical applications include crawler cranes, mobile cranes, locomotive cranes, and DC-powered overhead travelling cranes.

For rectifier-powered magnets, such as on AC cranes, select a Type M controller

- Line-Arc® Type M mill-type contactors
- Reliable, simple circuitry, easy to maintain
- Adjustable reverse current by rheostat inside the enclosure

##### Controller for Use With DC Generator Supply Only

VDC	Cold Magnet Current (A)	Indoor/Outdoor Type 3R Enclosure	
		Type	
230	31-80	AW80	
	81-130 ▲	AW130	

▲ 50-130 A range if generator is 20 kW or larger.

##### Modifications

Form No.	One modification from each group is available in the same controller.	
X11	Electrical interlocks on lift contactor, single-pole double throw, with 1.1 A break rating on 230 VDC, wired to terminal block for customer's use.	
R30 †	Booster (over-excitation) relay provides a limited-time contact closure at the start of each lift, for connection to a customer's generator shunt field circuit equipped for 275 V "pickup" and 190 V "carry," in order to increase all-day lifting efficiency. A Class 6815 Lift-Drop master switch or pushbutton station (or equivalent 230 VDC-rated pilot device) is required.	
R33 †	Booster with 12 VDC pilot relays. Provides a contact closure same as R30 above, but includes Lift-Drop pilot relays designed for use with low-voltage 1-N.O. momentary-contact Lift-Drop pushbuttons and a separate control source from customer's 12 V battery.	
R34 †	Booster with 24 VDC pilot relays. Same circuit as R33, but designed for a 24 V battery.	

† All booster (over-excitation) relay modifications require additional generator field circuitry and resistors properly matched to the generator. Square D is not in a position to specify or furnish this equipment. Therefore, controllers with booster relay modifications are recommended only to qualified crane manufacturers, or for replacement of existing booster-equipped controllers.

##### Pilot devices

Use Lift-Drop pushbutton station or master switch.

##### Ordering Information Required:

1. Class
2. Type
3. Form number

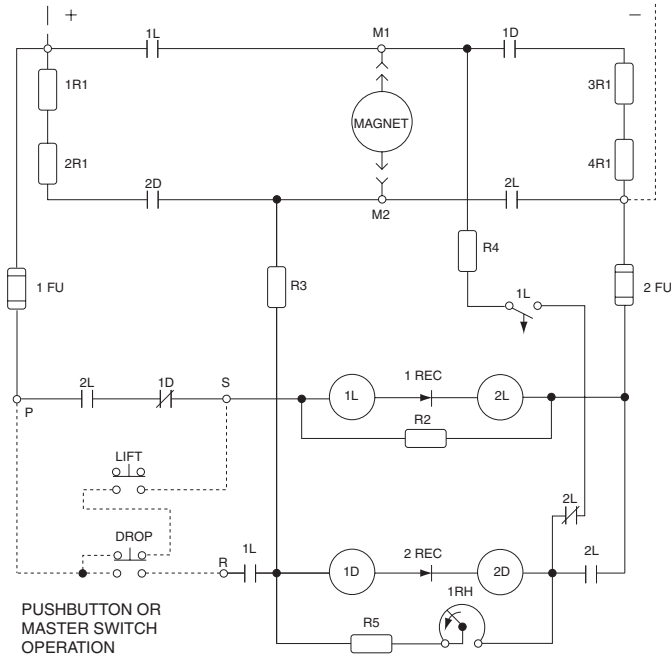
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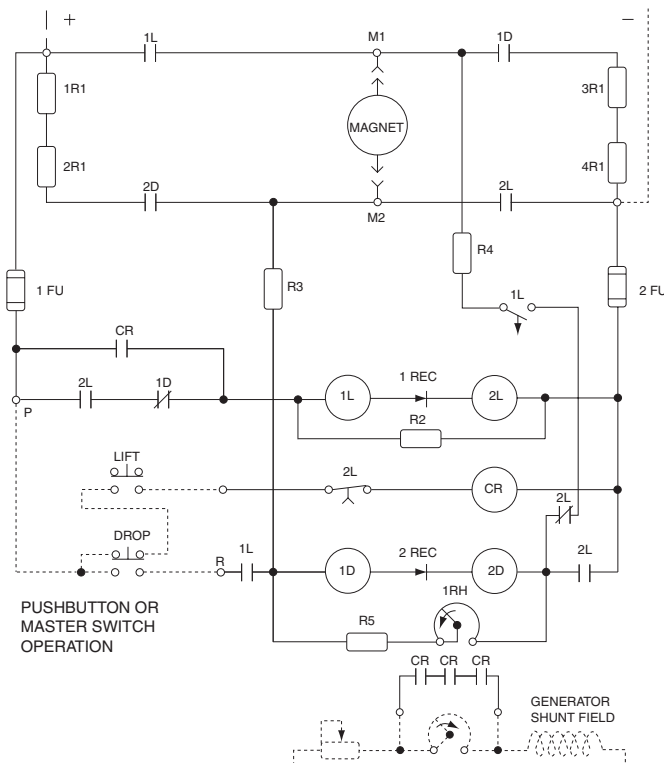
**TYPE A LIFTING MAGNET CONTROLLERS**  
**FOR 31 TO 130 AMPERE GENERATOR POWERED MAGNETS**

**Elementary Wiring Diagrams**

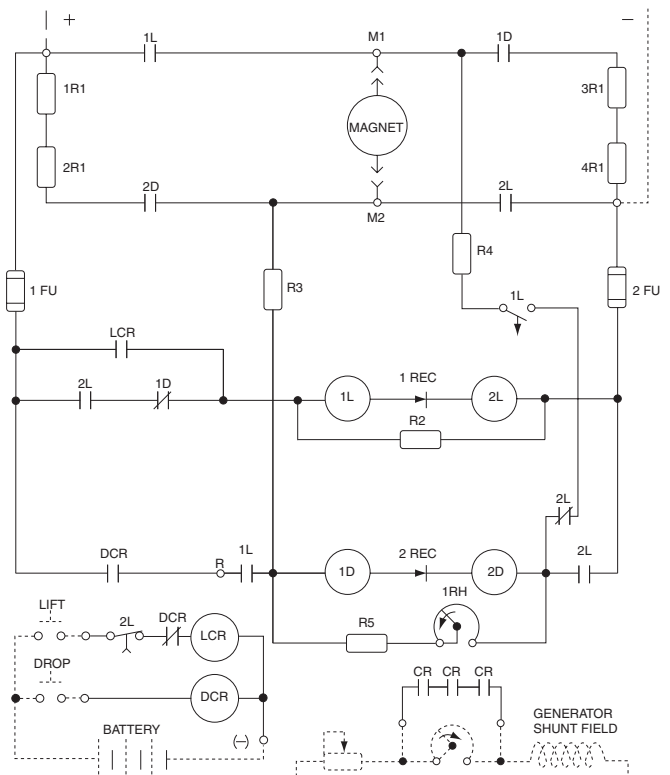
**Standard Type A Controller**



**Type A Form R30 Controller**



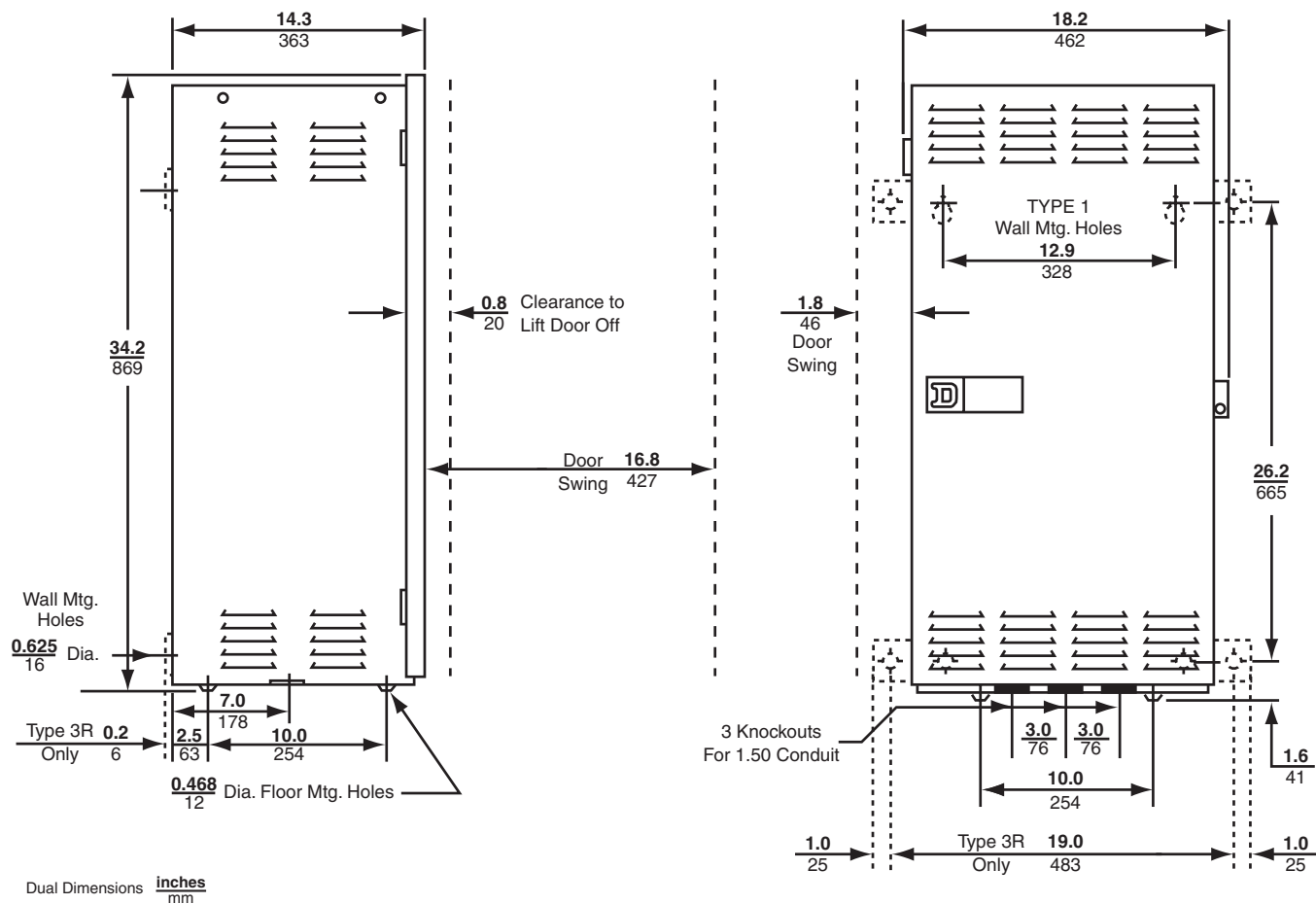
**Type A Form R33 & R34 Controllers**



## Crane Control Class 6815 Type A Lifting Magnet Controllers

### TYPE A LIFTING MAGNET CONTROLLERS FOR 31 TO 130 AMPERE GENERATOR POWERED MAGNETS

#### Approximate Dimensions and Weights



Approximate Net Weight – 150 lbs (67.5 kg)

## TYPE M LIFTING MAGNET CONTROLLERS FOR 15 TO 175 AMPERE MAGNETS

### Pricing and Ordering Information

For use with rectifier or generator power source on AC or DC cranes.

- Line-Arc® Type M mill-type contactors
- Tab-Weld® mill-type discharge resistor
- Reverse-current adjustable within enclosure
- Reverse-current monitor light for optimum clean-drop adjustment
- Rectifier or generator power source is completely isolated from magnet discharge



**Class 6815 Type M135  
Controller**

### For Use with 3-Phase Rectifier or Generator DC Supply ▲

VDC	Cold Magnet Current (A) ■		Indoor/Outdoor Type 3R Enclosure	
	Min.	Max.	Type	
230	15	35	M35	
	25	60	M60	
	40	85	M85	
	60	135	M135	
	85	175	M175	
	176	300	M300	
	176	300	MF300	

▲ Consult factory for fanning applications.

■ For magnets with less than 15 A or greater than 175 A cold magnet current, consult factory.

### Pilot Devices

Use Lift-Drop push button station or master switch.

### Modifications

Form No.	One modification from each group is available in the same controller.
X11	Electrical interlocks on lift contactor, single-pole double throw, with 1.1 A break rating on 230 VDC, wired to terminal block for customer's use.
R30 †	Booster (over-excitation) relay provides a limited-time contact closure at the start of each lift, for connection to a customer's generator shunt field circuit equipped for 275 V "pickup" and 190 V "carry," in order to increase all-day lifting efficiency. A Class 6815 Lift-Drop master switch or pushbutton station (or equivalent 230 VDC-rated pilot device) is required.
R33 †	Booster with 12 VDC pilot relays. Provides a contact closure same as R30 above, but includes Lift-Drop pilot relays designed for use with low-voltage 1-N.O. momentary-contact Lift-Drop pushbuttons and a separate control source from customer's 12 V battery.
R34 †	Booster with 24 VDC pilot relays. Same circuit as R33, but designed for a 24 V battery.

† All booster (over-excitation) relay modifications require additional generator field circuitry and resistors properly matched to the generator. Square D is not in a position to specify or furnish this equipment. Therefore, controllers with booster relay modifications are recommended only to qualified crane manufacturers, or for replacement of existing booster-equipped controllers.

### Ordering Information Required:

1. Class
2. Type
3. Form

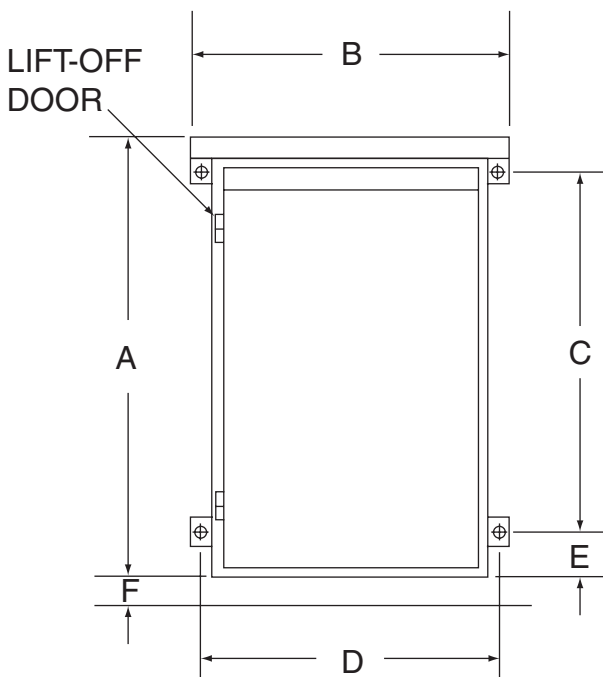
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## Elementary Wiring Diagram



**TYPE M LIFTING MAGNET CONTROLLERS**  
**FOR 15 TO 175 AMPERE MAGNETS**

**Approximate Dimensions and Weights**



Magnet Controller Class 6815 Type	Approx. Weight lbs (kg)	Overall			Door Swing	Wall Mounting Holes				Minimum Clearance Required for Ventilation
		Height	Width	Depth		Diameter	C	D	E	
		A	B							
M35, M60	101 (45.5)	<u>29.00</u>	<u>20.38</u>	<u>11.73</u>	<u>18.00</u>	<u>.44</u>	<u>24.00</u>	<u>19.38</u>	<u>3.21</u>	<u>1.50</u>
MF35, MF60	104 (46.8)	737	518	298	457	11	610	492	82	38
M85	158 (71.1)									
M135	175 (78.8)	<u>37.30</u>	<u>24.20</u>	<u>13.90</u>	<u>20.70</u>	<u>.44</u>	<u>29.50</u>	<u>23.00</u>	<u>3.20</u>	None
M175	175 (78.8)	947	615	352	526	11	749	584	81	
MF85	208 (93.6)									
MF135	225 (101.3)	<u>43.30</u>	<u>24.20</u>	<u>13.90</u>	<u>20.70</u>	<u>.44</u>	<u>35.50</u>	<u>23.00</u>	<u>3.20</u>	None
MF175	225 (101.3)	1100	615	352	526	11	902	584	81	

Dual Dimensions: inches  
mm