Westinghouse

TYPE GCD SIZE 6 AC CONTACTOR

2 OR 3 POLE **FRONT CONNECTED**

DESCRIPTION

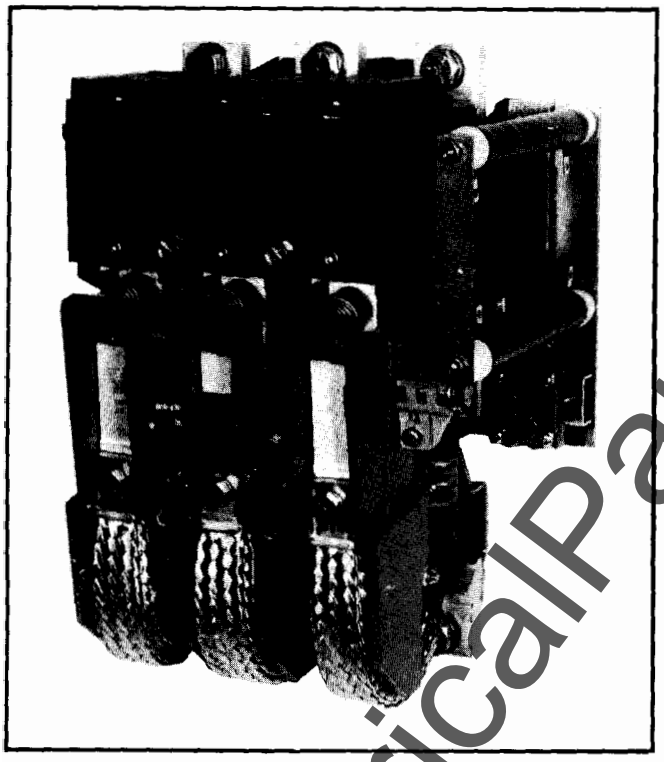

Fig. 1
Type GCD-630 Contactor with Type L-56 Electrical Interlock. (Photo BD74-0056)

The Type GCD Size 6 AC Contactor is similar to the Type GCA Size 6 AC Contactor except it is supplied with a D-C operating magnet. It is used where low dropout voltage or exceptionally quiet operation is desired.

A typical Type GCD Size 6 AC Contactor, Fig. 1, incorporates a Type L-56 Electrical Interlock (for auxiliary devices), a rectifier, economizing resistors, and a Type L-64 shorting interlock. The rectifier permits operation from an a-c control circuit supply.

The contact ratings are listed in Fig. 2.

Characteristics	Open	Enclosed
Voltage Rating 8-hour rating, Amperes	600 600	600 540

Fig. 2 Ratings

Outline dimensions of the Type GCD Size 6 AC Contactor are shown in Fig. 3.

Operation

A typical control circuit diagram is shown in Fig. 5. When the circuit is completed by the control relay, "CR", a d-c closing voltage is applied to the operating coil, closing the contactor. As the contactor closes, the Type L-64 shorting interlock opens, inserting the economizing resistors into the circuit. This provides the lower d-c holding voltage equal to the continuous rating of the operating coil.

Additional Descriptive Information

Additional information and detail in instructions are contained in the following instruction leaflets:

--I.L. 15-825-15A—Type GCA Size 6 AC Contactor

--I.L. 15-827-21B—Overload Protection Assembly for GCA Size 6 Contactors

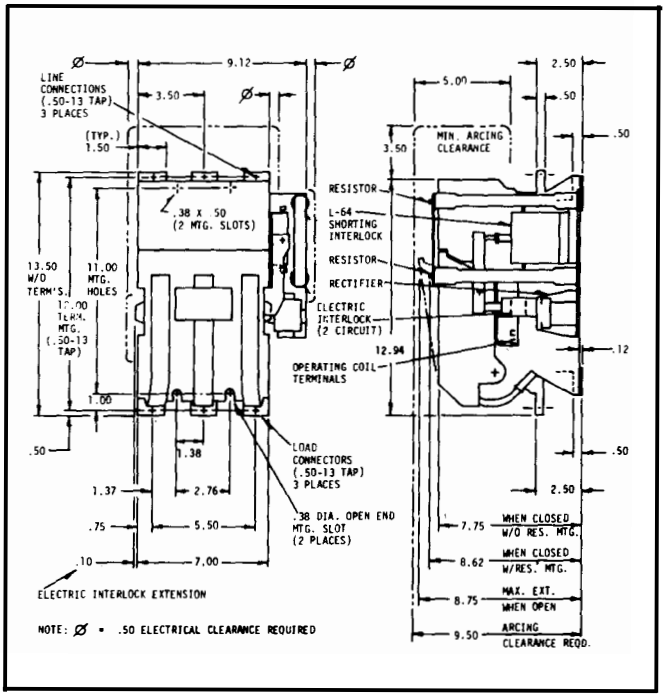

Fig. 3 Type GCD Size 6 AC Contactor Outline (From Dwg. 3512C86)

INSTALLATION

This industrial type control is designed to be installed, operated, and maintained by adequately trained workmen. These instructions do not cover all details, variations, or combinations of the equipment, its storage, delivery, installation, check-out, safe operation, or maintenance. Care must be exercised to comply with local, state, and national regulations, as well as safety practices, for this class of equipment.

The Type GCD Size 6 AC Contactor is supplied ready to be installed per the detailed instructions contained in I.L. 15-825-15A.

Before power is applied, the following must be correct for proper contactor operation:

a) Identification of resistors, rectifier and operating coil--correct watts, ohms, voltage and style number per Fig. 4.
b) Connection of control relay "CR", resistors, rectifier, and operating coil per Fig. 5.
c) Type L-64 shorting interlock contact gap. For required gap see Fig. 6; for adjustment procedure see Maintenance instructions.

MAINTENANCE

The following maintenance instructions are to be used in addition to those found in I.L. 15-825-15A.

Resistors, Rectifier, and Operating Coil Application

Fig. 4 lists the common resistors, rectifier and operating coil combinations. Fig. 5 shows typical control circuits for A-C or D-C supply.

For Supply		Use						
		100 Watt Resistors			Operating Coil			
Volts	Freq	Style Req'd-2	Ohms Each	Rectifier Style Req'd-1	Style Req'd-1 Color-Blue	DC Volts for Reference Closing	DC Volts for Reference Holding	Connect Per Fig.
120	50/60 Hz	443A325H01	50	2018A40G02	2050A12G24	106	9	5a
240	50/60 Hz	443A325H11	200	2018A40G02	2050A12G26	214	19	5a
480	50/60 Hz	443A325H22	750	2018A40G03	2050A12G28	430	40	5a
600	50/60 Hz	443A325H24	1000	2018A40G03	2050A12G30	538	60	5a
125	DC	443A325H05	75	None	2050A12G25	125	9	5b
250	DC	443A325H14	300	None	2050A12G27	250	18	5b

Fig. 4 Resistors, Rectifier and Operating Coil Combinations for Type GCD Size 6 Contactor (From Dwg. 3512C89)

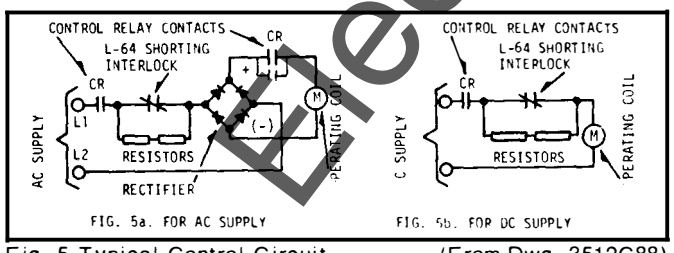

Fig. 5 Typical Control Circuit (From Dwg. 3512C88)

When a new resistor, rectifier or operating coil is installed, check identification for correct watts, ohms, voltage and style number. Parts and wiring must be reinstalled per Installation Instructions. In addition, high temperature insulation or sleeving is required on at least the 6 inches of wire adjacent to a resistor terminal. The resistor mounting stud must not be overtightened since this can damage the enamel coating, exposing the resistance wire. Such exposure can lead to eventual resistor failure.

Adjustment of The Type L-64 Shorting Interlock

For proper contactor operation, the Type L-64 shorting interlock is to be initially adjusted for .10 contact gap between its stationary and moving contacts with the contactor fully closed. This gap must never be less than .04" nor more than .12". If adjustment is required, see Fig. 6 and follow this procedure:

1) Remove all power.
2) Close contactor manually.
3) Loosen locknut on rear of molded operating arm.
4) Turn adjusting screw (screwdriver slot) to obtain the required .10 gap shown in Fig. 6
5) Hold adjusting screw in position with screwdriver and tighten locknut on adjusting screw.

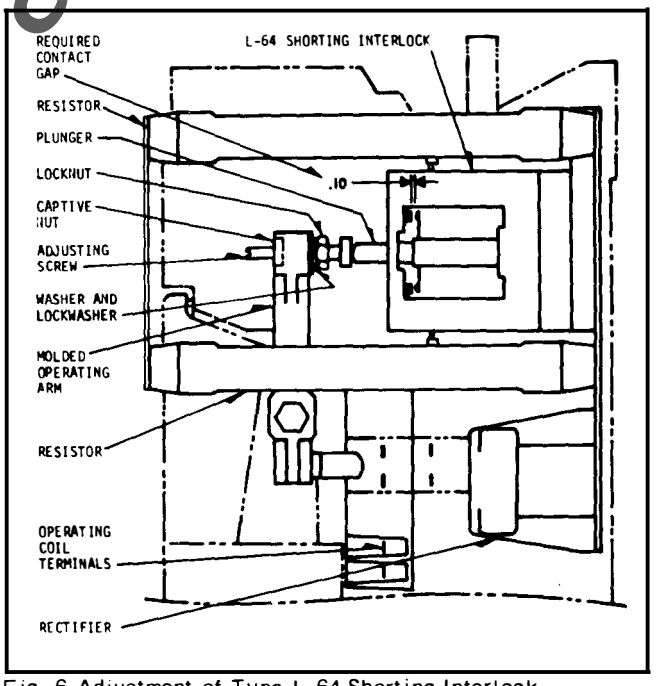

Fig. 6 Adjustment of Type L-64 Shorting Interlock (From Dwg. 3512C87)

RENEWAL PARTS

Complete contactor renewal parts data is listed in RPD-16-100B6D
Complete linestarter renewal parts data is listed in RPD 11-200S6-GCD.1

Westinghouse Electric Corporation
General Control Division
Asheville, N. C. 28813