



DESCRIPTION • OPERATION • MAINTENANCE

INSTRUCTIONS

*Life-Line*contactor* **TYPE N-020** Class 15-825 N.0 2 Pole, Size 0

TYPE N-020, LIFE-LINECONTACTOR*, 2 pole, Size 0 has been designed to be applicable to motor circuit loads, resistance loads, interconnections of multi-speed motor windings, etc. NEMA standard mounting dimensions have been met in the design of this contactor; Size 0, Type N, 2, 3, 4, and 5-pole contactors have identical mounting dimensions. Up to four electrical interlocks (See **ELECTRICAL INTERLOCKS**) may be mounted on each contactor depending upon circuit requirements. The contactor is complete with Line, Load and Control Terminals, **STRAIGHT-THRU** main wiring, and one normally open electrical interlock.

For a typical application of a single contactor showing Line, Load, and Control Connections refer to Fig. 1. Customer connections are shown in dashed line. The Start and Stop pushbutton units designated are furnished separately.

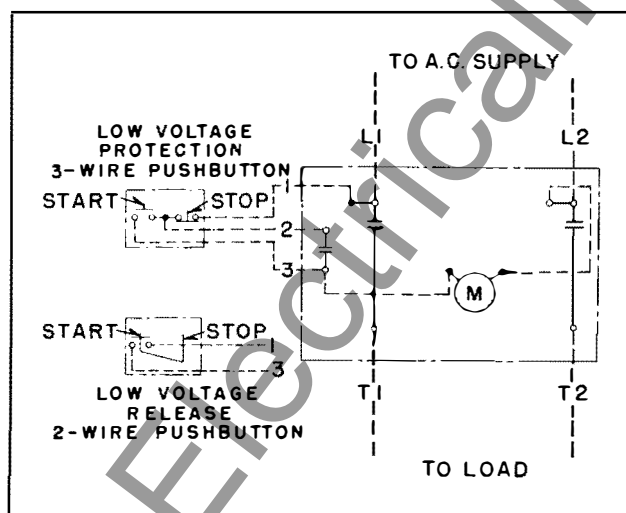


FIG. 1. Wiring Diagram

For more involved controls, the user may frequently apply several contactors with interconnections to meet his particular requirements. Thus, to obtain maximum application flexibility for the user, terminal marking and control wiring have been omitted from this contactor. Ratings are as shown in following Table:

MAXIMUM A-C RATINGS

Open—15 Amperes	Enclosed—13½ Amperes
HORSEPOWER	
Single Phase	
115	1
230	1½
440-600	1½

CONSTRUCTION

The Type N-020, 2-pole contactor is an inverted clapper type with knife-edge bearing and having positive action through the use of a compression kick-out spring. This construction provides maximum accessibility for servicing and maintenance and allows coil change to be a simple operation. All current carrying parts are of high conductivity copper or copper alloy of large cross section resulting in high electrical efficiency. Long life and low contact drop are assured by fine silver contacts with large area of bond for current conduction and heat transfer.

Pressure-type connectors on main and control terminals permit the use of either solid or stranded wire without soldered joints.

INSTALLATION

1. Clean the magnet surfaces.
2. Operate the armature by hand to be sure that all parts move freely.
3. Installation of the starter on a properly drilled and tapped mounting panel has been facilitated by providing two open mounting slots at the bottom of the starter base and a captivated screw at the top of the base. The two open slots should be made to engage screws started in the mounting surface; this will support the starter weight and also help position the captive screw so that it may be driven into the mounting surface. If a screw of different length is required, the captive screw may easily be removed from its spring retainer.

ELECTRICAL INTERLOCKS

This contactor comes equipped with one normally open interlock. By removing this interlock,

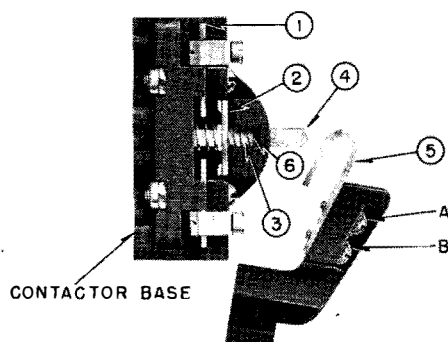


FIG. 2. Normally Open Interlock

shown in Fig. 2, and reassembling parts 1, 2 and 3 per Fig. 3, the interlock is changed from normally open to normally closed contact. The change is simplified by first placing the contactor in the normal vertical operating position and by proceeding as follows:

1. Swing arm (5) out of way by removing screw A and loosening screw B. (See Fig. 2).
2. To detach upper spring (3) from plunger (4) compress inturned end of spring against contact bar (2) and rotate spring until it disengages hole (6).
3. Interlock mounting screws need not be tightened excessively as Elastic Stop Nuts provide positive locking.
4. Operate reassembled interlock by hand to check freedom of moving parts before reassembling arm (5) into original position.

A second interlock may be obtained by ordering either S# 1314 880, normally open, or S# 1314 881, normally closed. A third or fourth interlock may be obtained by ordering either S# 1314 882, normally open, or S# 1314 883, normally closed. The above normally open interlocks may readily be installed as normally closed interlocks per instructions enclosed with each interlock.

PRINCIPAL RENEWAL PARTS

Moving Contact.....S# 1314 978
Stationary Contact.....S# 1314 979
Contact Spring.....S# 1314 960
For other parts refer to Renewal Parts Catalog.

MAINTENANCE

The sealing surfaces on the magnet frame and armature should be kept clean.

Do not lubricate the contact tips or bearings. Fine silver contacts need no dressing throughout their life.

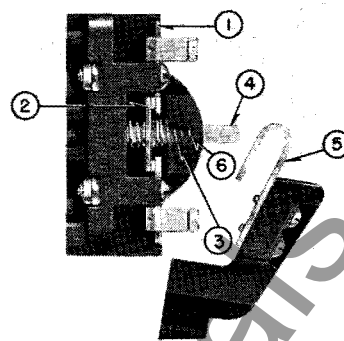


FIG. 3. Normally Closed Interlock

To Remove Contactor Coil, remove the three round head magnet mounting screws and withdraw the coil and magnet.

When Installing Contactor Coil, make sure that round head magnet mounting screws are securely tightened.

CONTACTOR IDENTIFICATION

This contactor complete is identified by style number (shown on the carton and as listed in Price List) and consists of two basic parts: (1) the contactor unit without coil, and (2) the coil.

The style number of the contactor unit (without coil) is S# 1532 859 and appears on the metal nameplate attached to the unit.

The coil style is marked on the coil itself along with its voltage and frequency rating.

Complete style identification for use in ordering either a complete contactor or individual coils is given in the following Table:

STYLE IDENTIFICATION

VOLTS	CYCLES	COIL STYLE	COMPLETE STYLE
115	60	1470 241	1587 672
115	25		
208	60	1470 242	1587 673
230	60		
230	25		
380	50	1470 243	1587 674
440	60		
480	60		
550	60	1470 244	1587 675
600	60	1470 245	1587 676
115	50	1470 246	1587 677
230	50	1470 247	1587 678
440	50	1470 248	1587 679
550	50	1470 249	1587 680
440	25	1470 250	1587 681
550	25	1470 251	1587 682

