



## DESCRIPTION

## INSTALLATION

# INSTRUCTIONS

## *Life-Line*contactor\* TYPE N 120

Class 15-825 N.1

2 Pole Size 1

**TYPE N-120, LIFE-LINECONTACTOR\***, 2 pole, Size 1 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 1, 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.

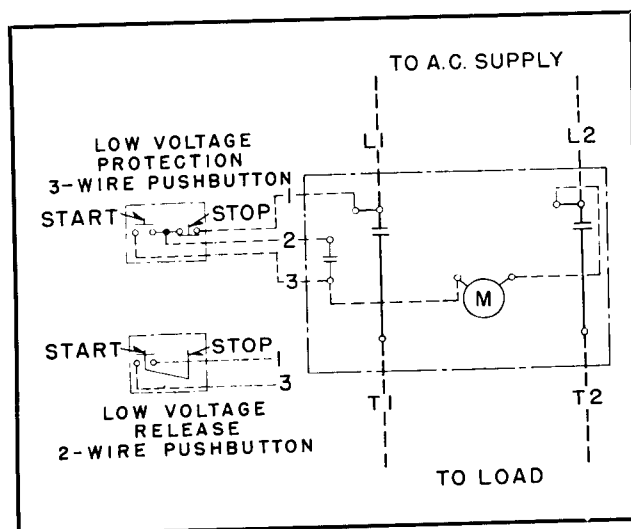


FIG. 1. Wiring Diagram

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—25 Amperes		Enclosed—22½ Amperes	
Volts		HORSEPOWER	
		Single Phase	
115		1½	
208-230		3	
440-600		5	

## CONSTRUCTION

The Type N-120, 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. Below the top mounting hole in the contactor backplate an opening is provided for the purpose of supporting the weight of the contactor during installation if the customer wishes to provide a peg or shoulder pin on the mounting surface for this purpose.

## ELECTRICAL INTERLOCKS

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

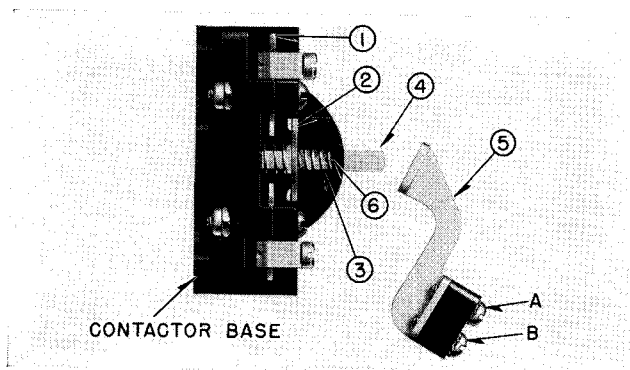


FIG. 2. Normally Open Interlock

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 884, normally open, or S# 1314 885, normally closed. A third or fourth interlock may be obtained by ordering either S# 1314 886, normally open, or S# 1314 887, 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 985  
Stationary Contact.....S# 1314 986  
Contact Spring.....S# 1314 961  
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.

**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.

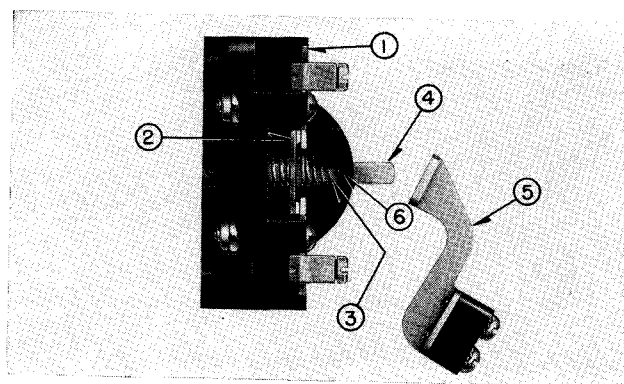


FIG. 3. Normally Closed Interlock

## 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# 1314 999 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
110	60	1470 241	1587 705
110	25		
208	60	1470 242	1587 706
220	60		
220	25		
380	50	1470 243	1587 707
440	60		
480	60		
550	60	1470 244	1587 708
600	60	1470 245	1587 709
110	50	1470 246	1587 710
220	50	1470 247	1587 711
440	50	1470 248	1587 712
550	50	1470 249	1587 713
440	25	1470 250	1587 714
550	25	1470 251	1587 715



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