



DESCRIPTION • INSTALLATION • MAINTENANCE INSTRUCTIONS

REVERSING *Life-Line*contactor*

TYPE N-140

CLASS 15-815 N.1

4 POLE SIZE 1

THE TYPE N-140 REVERSING LIFE-LINE-CONTACTOR has been designed primarily to provide reversing operation for a-c motors, and consists of two 4-pole non-reversing contactors mechanically interlocked to prevent both contactors from being closed at the same time. Up to three electrical interlocks per contactor (total of 6 on complete unit) may be mounted on this device depending upon circuit requirements (See Electrical Interlocks). This reversing contactor is complete with Line, Load, and Control Terminals, Main Cross Wiring and one normally open electrical interlock per contactor (total of 2 on complete unit).

For a typical application of a reversing contactor showing Line, Load and Control Connections, refer to Fig. 1. Customer connections are shown

in dashed lines. The reversing pushbutton station shown in Fig. 1 is furnished separately.

This reversing contactor unit is intended to be applicable to numerous simple control schemes (See Fig. 1) and also as a part of large control panels. Thus, to obtain maximum application flexibility for the unit, terminal marking and control wiring have been omitted but main cross wiring has been included. Ratings are shown in the following table:

MAXIMUM A-C. RATINGS

Open—25 Amperes		Enclosed—22½ Amperes	
Volts		HORSEPOWER	
		Polyphase	
110		3	
208-220		5	
440-600		7½	

CONSTRUCTION

This Reverser employs two 4-pole non-reversing contactors of the 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.

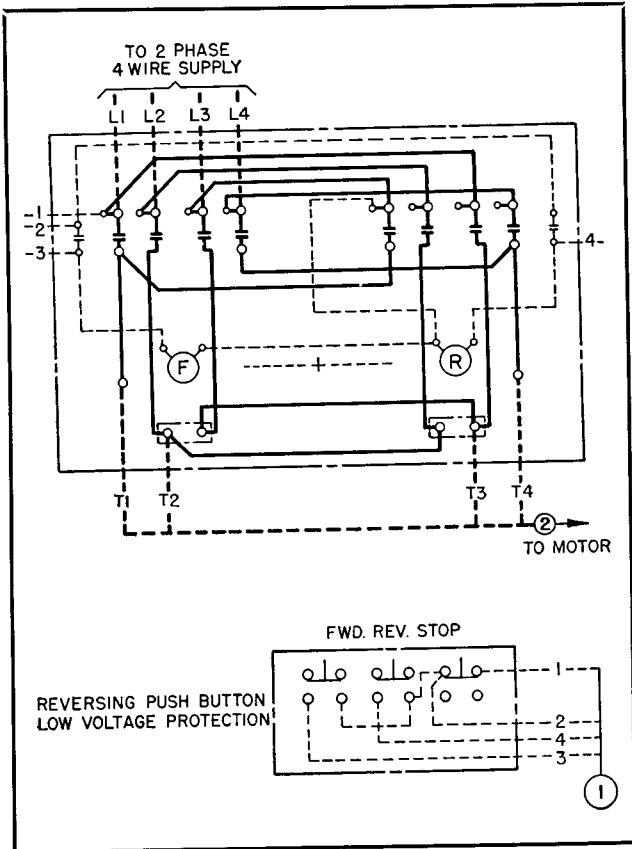


FIG. 1. Wiring Diagram

REVERSING LIFE-LINECONTACTOR

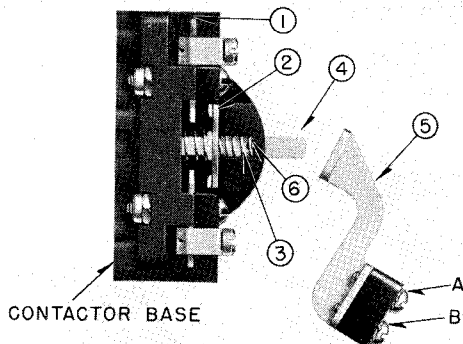


FIG. 2. Normally Open Interlock

ELECTRICAL INTERLOCKS

This reversing unit comes equipped with one normally open interlock on each contactor. By removing the 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 following procedure is recommended:

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. Operate reassembled interlock by hand to check freedom of moving parts before reassembling arm (5) into original position.

A second interlock for each contactor may be obtained by removing either S# 1314 884, normally open, or S# 1314 885, normally closed. A third interlock per contactor 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.

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.

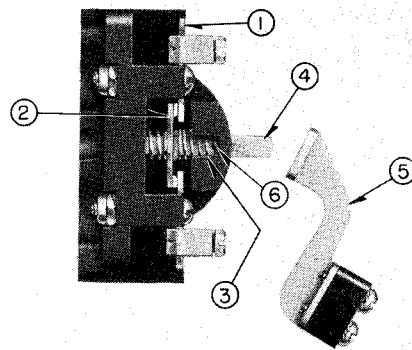


FIG. 3. Normally Closed Interlock

CONTACTOR IDENTIFICATION

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

The style number of the reversing contactor unit (without coils) is S# 1588 536 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 reversing contactor unit or individual coils is given in the following table:

STYLE IDENTIFICATION

VOLTS	CYCLES	COIL STYLE	COMPLETE STYLE
110	60	1470 261	1588 564
110	25		
208	60	1470 262	1588 565
220	60		
220	25		
380	50	1470 263	1588 566
440	60		
480	60		
550	60	1470 264	1588 567
600	60	1470 265	1588 568
110	50	1470 266	1588 569
220	50	1470 267	1588 570
440	50	1470 268	1588 571
550	50	1470 269	1588 572
440	25	1470 270	1588 573
550	25	1470 271	1588 574

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.



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